## Bergen

## (COMMUNITY COLLEGE



## 2007 - 2008

## Ceralog

## Di rections to the College

## 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 two miles to college, proceed around jug handle to main entrance.
(Via Route 17) Turn right off Route 17 onto Ridgewood Avenue (west) to Paramus Road. Turn left onto Paramus Road and continue

## 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 two miles to college entrance on right side of Paramus Road.

## FROM THE SOUTH

(Via Garden State Parkway) Take
Exit 160 (Passaic Street). as above.



http:/ / w w w.bergen.edu

## Bergen C ommunity C ollege, 400 Paramus R oad, Paramus, N ew Jersey 07652-1595 201-447-7100 201-447-7845 (T T Y)

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. The curriculum is accurate as of July 2007. For the most current curriculum, see the e-catalog at http://www.bergen.edu/ecatalog/2007.

NONDISCRIMINATION POUCY: 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, including veterans of the Vietnam era.
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 O Ider A mericans Act of 1975, and the A mericans with Disabilities Act of 1990, and the $N$ ew Jersey Law A gainst Discrimination. Complaints or questions concerning violations of these laws and policies should be addressed to: Raymond Welch, M anager of Training and Compliance, Bergen Community College, 400 Paramus Road, Paramus, N ew Jersey, 07652; 201-612-5331 (voice), 201-447-7845 (TTY), or rwelch@bergen.edu (email), or to the Secretary, D epartment 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.


## BERGEN COMMUNITY COLLEGE



Bergen Community College provides high quality, relevant, and varied educational programs and opportunities for the intellectual, cultural, and personal growth of all members of its community. The College values its role as an educational leader, embracing change and responding to the complex needs of those it serves.

## Goals

To offer credit and non-credit educational programs that are comprehensive and diversified, providing students with the knowledge and skills necessary to transfer to baccalaureate programs, to achieve employment goals, and to enhance personal and professional growth through lifelong learning.

To provide supportive services and leadership opportunities in an environment that enables and encourages students to achieve their educational and professional goals and to develop their social skills.

To provide cultural programs that are of interest to a diverse community and that engage and enrich the audience through a range of creative expression.

To coNaborate with educational institutions, community organizations, public agencies, businesses, and employee groups to enhance opportunities for learning and for the economic development of the region.


## K nowledge for today

confidence for tomorrow.

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## 



Wel cometo Bergen Community College. At Bergen, we offer challenging programs and enriching experiences that will lay the foundation for your future. The Coll ege provides opportunities for personal and intellectual growth that will prepare you for further educational pursuits, or a new car eer. Bergen Community Coll ege - knowl edge for today, confidence for tomorrow.


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## A M essage fromthe President

Welcome to Bergen Community College. To serve as the fifth president of Bergen Community College is my honor, our community college is nationally recognized for excellence in academics and outstanding support services to students and to the surrounding community. O ur core values promote engaged learning, collaboration through teamwork, innovation, creativity, and problem-solving across all disciplines. Bergen Community College exemplifies a seamless blend of tradition and educational innovation, engaging students to raise questions, analyze evidence, substantiate opinions, make decisions and communicate ideas effectively. Whether in the context of an inspirational lecture or an engaging online discussion, Bergen's primary focus is on excellent teaching. Furthermore, Bergen provides superb technological resources in support of instruction.

The comprehensive curriculum inspires learning leading to personal and intellectual transformation. Dedicated faculty engage the students' intellectual capabilities from their first day on campus to commencement. Students are mentored and challenged intellectually in new and unexpected ways. H ere all students are encouraged to reach for levels of achievement perhaps never before attempted. L earning takes place in an engaging, respectful atmosphere so that students will be well prepared to go on to earn a bachelors degree or begin a career in our complete diverse society.

While increasing numbers of students and families continue to make Bergen C ommunity College their college of choice, we are mindful of concerns about campus security. Bergen Community College has taken steps to provide students with a safe environment. Safety is the primary responsibility of the College's Public Safety O fficers who work in close partnership with the Bergen County and Paramus police. Safety training sessions are frequently held on campus.

I encourage you to take advantage of everything that Bergen Community College has to offer. You will become a part of our legacy as we give you the foundation to succeed. M ost importantly, Bergen will cultivate your ability and a passion for learning that will last a lifetime.


## Calendar

The following page contains a general listing of the C ollege's important dates to remember.*

| Fall 2007 |
| :---: |
| Labor Day Holiday, College Closed . . . . . . . . M onday, Sept. 3 |
| CLASSES BEGIN . . . . . . . . . . . . . . . . . . . . . Wednesday, Sept. 5 |
| C hange of Registration |
| 9:30 a.m. - 6:30 p.m. . . . . . . . . . . . . . . . Wed.-Thurs., Sept. 5-6 |
| 9:30 a.m. - 5:30 p.m. . . . . . . . . . . . . . . . . . . . . . . Friday, Sept. 7 |
| 9:30 a.m. - 6:30 p.m. . . . . . . . . . . . . . M on.-Tues., Sept. 10-11 |
| Last day to receive 100\% refund . . . . . . . . . . Tuesday, Sept. 11 |
| Last day to receive 50\% refund . . . . . . . . . . . . Tuesday, Sept. 18 |
| Yom Kippur Holiday, C ollege Closed at 6:00 p.m. Friday and all day Saturday $\qquad$ |
| Last day to receive $25 \%$ refund . . . . . . . . . . . . Tuesday, Sept. 25 No refunds after this date |
| Last day to request Audit Status . . . . . . . . Wednesday, Sept. 26 |
| Last day to make arrangements with Faculty to resolve Spring/Summer 2007 "IN C" grades. . . . . . Friday, 0 ct. 5 |
| Last day for Faculty to resolve <br> Spring/Summer 2007 "IN C" grades. . . . . . . . . . Friday, 0 ct. 12 |
| A pplication Deadline for Spring 2008 for International Students holding Student Visas . M onday, Oct. 15 |
| Continuing Students Priority Registration for Spring 2008, by appointment . . . M on.-Fri., Oct. 22-N ov. 2 |
| O fficial Withdrawal Deadline, Fall 2007 .... Tuesday, N ov. 13 (Courses that start after the first week of classes or that end mid-semester have adjusted deadlines.) |
| Thanksgiving Holiday, College C losed. . . . . . . . Wed., N ov. 21 |
| No classes or academic services . . . . . . Thurs.-Sat., N ov. 22-24 |
| All Students Registration for Spring 2008 . . . . . . . . . . . . . . . . . . . . . . M on.-Fri., Dec. 3-14 |
| D egree Application Registration for M ay 2008 Graduation . . . . . . . . . . . . . . . . . . . Friday, Dec. 7 |
| CLASSES EN D . . . . . . . . . . . . . . . . . . . . . . . Saturday, Dec. 22 |
| Winter Recess, College Closed . . . . M on.-Tues., Dec. 24-J an. 1 |
| gency makeup days . . . . . . . . . . . . Wed.-Thurs., Jan. 2-3 |

## Emergency Closings

In the event that the College will be closed or have a delayed opening, official notification is available from the following sources:

Online: http://www.bergen.edu or http://www.1010W IN S.com to sign up for e-mail notifications
Radio: WCBS/880, W OR/710, 1010 WINS, WVNJ/1160
TV: $\quad$ Cablevision/ News 12 NJ
Phone: (201) 447-7100 (recorded message)
Spring 2008
College Reopens. ............................. Wednesday, Jan. 2
0 pen Registration

$\qquad$
CLASSES BEGIN ..... Friday, Jan. 18
Change of Registration
9:30 a.m. - 5:30 p.m. .....  Friday, Jan. 18
9:30 a.m. - 6:30 p.m ..... Tues.-Thurs., Jan. 22-24
M artin Luther King Jr. Holiday, C ollege C losed M onday, Jan. 21
Last day to receive 100\% refund

$\qquad$
Thursday, Jan. 24
Last day to receive 50\% refund

$\qquad$
Thursday, Jan. 31
Last day to receive $25 \%$ refund . Thursday, Feb. 7
Last day to request Audit Status ..... Thursday, Feb. 7
Last day to make arrangements with Faculty to
resolve Fall 2007 "IN C" grades . Friday, Feb. 22
Last day for Faculty to resolve
Fall 2007 "IN C" grades ..... Friday, Feb. 29
G ood Friday H oliday, C ollege C losed

$\qquad$
. Friday, M arch 21
No classes or academic services ..... Saturday, M arch 22
Spring Recess, No classes ..... M on.-Fri., M arch 24-28
No classes or academic services ..... Saturday, M arch 29
Continuing Students Priority Registration for
Summer 2008, by appointment . . M on.-Fri., M arch 31-A pril 4
Official Withdrawal Deadline, Spring 2008 .....  . . Thursday, April 3
(Courses that start after the first week of classes orthat end mid-semester have adjusted deadlines.)All Student Registration
for Summer 2008 ..... M on.-Fri., A pril 7-M ay 16
C ontinuing Students Priority Registrationfor Fall 2008, by appointment. . . . . M on.-Fri., A pril 21-M ay 9All Student Registration
for Fall 2008 M on.-M on., M ay 12-Aug. 18
CLASSES END M onday, M ay 12
Emergency makeup days

$\qquad$
.Tues.-Wed., M ay 13-14COMMENCEMENT. Friday, M ay 16

## Summer 2008

SESSION I

CLASSES BEGIN . . . . . . . . . . . . . . . . . . . . . M onday, M ay 19

C hange of Registration. . . . . . . . . . . . M on.-Tues., M ay 19-20

Memorial Day Holiday, College Closed. . . M onday, M ay 26

CLASSES END . . . . . . . . . . . . . . . . . . . . . Thursday, June 26

SESSION II

CLASSES BEGIN . . . . . . . . . . . . . . . . . . . . M onday, June 30

C hange of Registration. . . . . . . . . M on.-Tues., June 30, July 1

CLASSES END. . . . . . . . . . . . . . . . . . . . Wednesday, Aug. 6

# BERGEN COMMUNITY COLLEGE STRATEGIC PRIORITIES 

## Strategi c Planning

## SUPPORT STUDENT SUCCESS:

Promoting a Positive Climate for Learning

- A ddress needs of diverse student population
- C reate proactive strategies to assist underprepared students
- Ensure instructional responsiveness to job market
- Review career and transfer programs so students accomplish their educational goals
- Increase graduation rates of minority and low-income students


## VALUE AND EM POWER FACULTY AND STAFF:

Supporting our Human Resources

- Establish clear college governance processes
- R evitalize faculty and staff development
- Clarify and, where absent, create evaluation and promotion processes
- Ensure that hiring and recruitment practices meet college needs


## PROM OTE COMMUNICATION:

Building an Informed Community

- Build processes for inclusive dialogue
- Respect diverse viewpoints
- Develop and publicize clearly written policies and procedures across the institution
- Structure avenues of communication and coordination of effort
- M arket the competitive value of the college's tuition and fee structure


## INCREASE CAPACITY:

Planning for the Impact of our Growth

- Increase enrollment capacity and ensure that college services and facilities support enrollment growth
- R efurbish existing brick and mortar facilities
- O ptimize use of technological and physical resources
- Expand partnerships with high schools and institutions of higher education
- Increase effort to secure public and private funding


## IN ST IT UTIONALIZE ASSESSM ENT AND PLANNING:

Reflecting on What We Do

- A ssess institutional effectiveness in order to renew institutional processes
- Use student learning outcomes assessment for curriculum revision
- Implement shared decision-making in planning
- A ssess the strategic planning process


## G eneral Information


#### Abstract

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


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

The C ollege receives funding from the Bergen C ounty Board of C hosen Freeholders and from the State of New Jersey. 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 obligations of 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 propel the student toward self-discovery and personal selfrealization. High academic standards are maintained so that the student can easily transfer to a four-year college or university 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 such as those in N ew York City 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 are 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 students 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 guide 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.

The College offers a wide variety of athletic activities such as basketball, baseball, tennis, soccer, golf and intermural sports.

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

## History

The emergence of Bergen Community College as the county's first public two-year institution of higher learning was due to the dedicated efforts of many people to expand the 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 twoyear county college in Bergen County.

In O ctober 1963, the "County CollegeStudy Committee" submitted its final report which stated: "The subcommittee of the county college study committee concludes that there is an immediate need for a two-year public county college in Bergen County." On A pril 7, 1965, the Bergen County Board of Chosen Frecholders submitted a petition to the State Board of Education requesting permission to establish a county college in Bergen County and requesting that the Commissioner of Education 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 N ew 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 providefinancial 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 O ctober 20, 1965, be finally adopted, and that theclerk 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 long-range educational needs of the citizens of the community. The 167 -acre site of the Orchard Hills Country Club in Paramus was selected for the home of Bergen Community College.

Dr. Sidney Silverman was named as the first president of the C ollege and consultant to the Board of Trustees in August 1966. He served as president from February 1, 1967, until his retirement on June 30, 1977. Dr. Alban E. Reid was 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. Dr. G. Jeremiah Ryan became the fifth president on July 1, 2007. 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. The M aster 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. In 1987, the Board of Trustees approved a Facilities M aster Plan, which called for the construction of the Student Center, the Theatre, and the C-wing of the Pitkin Education Center, which provides classrooms for technology enhanced instruction. The plan included the expansion of the Sidney Silverman Library and barrier-free access for disabled students. With the completion of the Technology Education Center, which opened September 2003, the 1987 Facilities M aster Plan was completed.

The Philip Ciarco Jr. Learning Center was founded by the College in 1970 primarily to provide educational and counseling services for adults who had not completed a formal high school education, as well as for adults who wereinterested in studying English as a Second Language. The newly renovated facility at the corner of $M$ ain and Passaic Streets, H ackensack, was opened on October 14, 1999. The Center houses spacious seminar rooms, classrooms, computer laboratories, and student lounge areas.

The most recent addition to Bergen Community College's campus facilities was West Hall, home to Bergen's Educational Broadcast Center and M edia Technologies. O pened on M ay 10, 2007, West H all is a state-of-the-art facility containing television studios, a radio studio, and a video conference center. It also serves as the fine and graphic arts facility for the College which features computer graphics and animation laboratories, exhibition rooms, artist's studios and classrooms. Themusic arts instructional areas in thebuilding include rehearsal rooms, piano labs, a M usical Instrument Digital Interface (M IDI) lab, a recital hall, and recording studios.

## Accreditations

Bergen Community College is accredited by the Commission on Higher Education of the M iddle States Association of Colleges and Schools, 3624 M arket Street, Philadelphia, PA 19104; 215-662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation.
In addition, four programs are accredited by the Commission on Accreditation of Allied H ealth Education Programs (CAAH EP):

## - Diagnostic M edical Sonography <br> - M edical Office Assistant <br> - Respiratory T herapy <br> - Surgical Technology

The Nursing Program is approved by the N ew Jersey State Board of N ursing and is also accredited by the N ational League for N ursing A ccrediting Commission, 61 Broadway, 33rd Floor, New York, NY 10006; 212-363-5555.

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 Paralegal Studies and the Legal N urse Consultant Program are approved by the American Bar Association.
The Veterinary Technology Program is accredited by the American Veterinary M edical Association.

## Bergen C ommunity C ollege maintains

 an open door policy for degree and non-degree-seeking students.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.


## About Bergen

Since its founding in 1965, Bergen Community College has been proud of its mix of tradition and innovation in the process of challenging students to raise questions, examine evidence, validate opinions, make decisions, and communicate ideas effectively. Whether experienced through engaging classroom teaching or through an independent online class, Bergen's faculty and technological resources are top-notch. Bergen's extensive fiber-optic and wireless networks covering the library, the classrooms, the Information Commons and Smart Classrooms permit e-mail and the Internet to be incorporated into all facets of our curriculum and daily activities.

At Bergen, the 14,600 students from around the world are united in their common pursuit of knowledge and in their participation in and enjoyment of sports, the arts and fun. Bergen is a place where students are encouraged to reach for levels of achievement that they have never attempted before. This is a personal process that can often have profound results because Bergen instills in students the knowledge and the professionalism needed to succeed in the workplace or to go on to earn their bachelor's degree. Applicants-both degree-seeking and non-degree-seeking-must apply for admissions to the College.

All applicants are encouraged to apply online at http://admissions.bergen.edu, and then click on apply online.

## Non-Degree-Seeking Students

- Students must have graduated from high school or be over the age of 18.
- The Basic Skills Placement Test need not be completed before registering for class; however, it must be completed before registering for the 12th credit or before registering for an English or M athematics course.
- Financial aid is not available to non-degree-seeking students.


## Degree-Seeking Students

- Students seeking admission to the Health Professions or N ursing programs should refer to pages 20 and 21 for minimum entrance requirements and application deadlines. Space in these programs is limited.
- Students seeking admission on an F-1 visa must apply no later than M ay 1 for fall admissions or October 15 for spring admissions.
- Official high school transcripts are required for: Health Professions, N ursing, Veterinary Technology, International F-1 visa-holders, those with foreign credentials and NJ STARS applicants.
- Applicants applying for A.A. and A.S. programs are encouraged to submit official high school transcripts for advisement purposes. Applicants seeking to qualify for scholarships are strongly encouraged to submit official high school transcripts.
- Students with foreign secondary school credentials must submit officially translated copies.
- Prior to registering for classes, students must complete the Basic Skills Placement Test requirement. Additionally, students who have attended other colleges or universities must have their transcripts sent to the O ffice of Admissions and Registration. Those with foreign post-secondary credentials should submit course-by-course evaluations.

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

## General Educational Development (GED) Diploma

Students 16 years of age or older who do not have a high school diploma may qualify for a GED diploma by:

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

Call the Bergen Community College Ciarco Learning Center, Office of Testing Services at 201-968-9472 x272 for more information

## Second Bergen Community College Degree

Students who have completed a certificate or degree program at Bergen Community College and wish to pursue another certificate or degree at the College must complete and submit a new application for admission. Credits earned tow ard 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 (A.A.) and one Associate in Science (A.S.) degree at Bergen Community College. Two or more Associate in Applied Science (A.A.S.) degrees and certificates are permissible if in different majors.

## Visiting Students

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

## 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 international student status ( $\mathrm{F}-1$ ) with the United States Citizenship and Immigration Services (USCIS). 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 unless previously authorized. Depending upon the applicant's present immigration status, certain USCIS forms need to be completed. Check off listings highlighting the required papers and forms are available in the Admissions $O$ ffice. Sponsorship, either from the individual stu-
dent or from someone else, needs to be provided in order to document the fact that the applicant 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 cover the information required to apply, application procedures and USCIS forms and immigration problems. The workshops will be conducted by the International Admissions Counselor. To sign up for an international admissions workshop please call 201-447-7196. 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 M UST report to the International Admissions Counselor's office with their passports and approved I-20 form within the first few days of arriving in the United States. Deadline dates for submitting all documents are strictly enforced and are as follows: for the fall semester (September) the deadline is M ay 1st; for the spring semester (J anuary) the deadline is 0 ctober 15th. These dates are subject to any changes that might be implemented by the United States Citizenship and Immigration Services.

Please note that effective J anuary 2003, mandatory Student and Exchange Visitor Information System (SEVIS) guidelines have been implemented by the U nited States Government through the Homeland Security Department for all licensed and approved college, universities and institutions issuing I-20 forms. Under these new regulations some applicants who are requesting a change of visa status with USCIS M UST receive official authorization from Immigration prior to being officially admitted or registering for any classes at Bergen Community College. A SEVIS fee that is payable prior to receiving approved F-1 status is required. Please see the appropriate Web site on the Internet for information related to the payment of this fee and to see if this is a necessary requirement for you to obtain an I-20 form at https://www.fmjfee.com/index.jhtml. Additionally, for more information regarding international admissions, please visit: http://admissions.bergen.edu/admissions/internationalstudents.

O nce you are admitted, there are international student counselors at Bergen to help you to adjust to life in the United States.

## Special Notes

International applicants cannot apply for H ealth Professions and/or N ursing upon initial application to the college. They can later apply for these programs once they are enrolled at Bergen Community College through a change of curriculum. There are some prerequisites that must be completed prior to admissions to these curricula.

Students placed in the A merican Language Program (ESL courses) cannot take collegelevel courses until they have successfully completed all the required levels of the program as well as having passed the required exit examination. These students upon completion of required ESL (American Language Program) courses must take a mathematics placement test or be granted a waiver.

## Counseling for International Students

Counselors are available to advise students from other countries on their special issues, and to assist them in participating fully in student life. For more information regarding student life as an admitted international student at Bergen Community College, please visit: http://ww w.bergen.edu/internationalcounseling. For questions about Bergen Community College, United States Immigration, courses, personal matters, or anything else, call the Counseling Center at 201-447-7211 to make an appointment with an international counselor.

## Students with Disabilities

Bergen Community College is fortunate to be an educational institution that is accessible to students with disabilities. The Office of Specialized Services (OSS) serves students with physical, visual, learning, hearing, emotional and other documented disabilities. Continuous utilization of academic support services should be maintained throughout a student's college experience in order to assist the student in attaining the desired academic goals.

A student with a disability who plans to attend Bergen Community College should provide documentation of the disability to the Office of Specialized Services as soon as possible. T he deadlines for submitting disability documentation are: August 1 for Fall Semesters and December 1 for Spring Semesters. For more information about documentation and appropriate deadlines to receive academic support services please go to: http://www.bergen.edu/oss. Students should indicate that they have a disability on the postcard insert in the paper application to the College or on the Web application. Disclosure on the application is voluntary but will ensure a timely response when seeking academic support services.

These services can include sign language interpreters, adaptive technology, C-Print Captioning, print enlargers and Braille printers, scribes, N ote takers, tutors, alternative testing arrangements, counseling and support groups. Students are strongly encouraged to visit the OSS Web site at: http://www.bergen.edu/oss.

## TESTING SERVICES

In support of the mission of Bergen Community College, the Office of Testing Services offers a variety of testing services. The Bergen Community College Office of Testing Services (OTS), 201-447-7202, is located in Room S-127. The O ffice of Testing Services serves the college community by identifying, developing, procuring, administering, processing, and/or evaluating examinations which meet a variety of administrative and instructional needs.

## General Test Taking Requirements

The Office of Testing Services will not administer examinations to test takers unless they provide the following:

- Valid Identification. Acceptable identification is either a Bergen Community College student identification card, a driver's license with photo, a Bergen County photo identification card or a valid U.S. passport.
- Student Identification $\mathbf{N}$ umber. A student identification number is either a social security number or a Bergen Community College student identification number issued by the Office of Admissions and Registration, Room A-129.


## Basic Skills Placement Testing

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 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 $M$ athematics. Under specific conditions, a student may have the 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 Services, Room S-127. There is no fee for this examination.

## Levels of English Proficiency Testing

International students or students for whom English is not their native language may be required to take the Levels of English Proficiency Test (LOEP). This test measures proficiency in reading, writing, and listening and may place students in the A merican 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 LOEP are then required to take the mathematics portion of the Basic Skills Placement Test. Under specific conditions, a student may have the LOEP and/or mathematics test requirement waived. Further information about waivers, the LOEP, and the ALP is available at the Office of Testing Services, R oom S-127. There is no fee for this examination.

## Challenge Testing

Dueto a variety of circumstances students may not perform to the best of their abilities on the Basic Skills 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 current schedule of test dates may be obtained in person from the Office of Testing Services, R oom S-127.

## Proficiency Testing

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. H owever, a successful proficiency test carries no course credit. Proficiency test registration forms can be obtained from the Office of Testing Services, Room S127. There is a $\$ 30$ fee for each proficiency test taken.

## Credit-by-Examination

The Office of Testing Services administers credit-by-examination (CBE) for several 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 and 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 may be obtained at the Office of Testing Services, Room S-127. There is a $\$ 30$ fee for each test.

## College Level Examination Program

Bergen Community College students may earn college credit for learning achieved outside formal college courses through the College Level Examination Program (CLEP). See Page 18 for more information.

## Advanced Placement Examinations

Bergen Community College students may earn college credit through Advanced Placement examinations (AP). See Page 19 for more information.

## General Educational Development (GED) Test

Bergen serves as a test center for the official GED test. The GED test consists of five parts: W riting, Social Studies, Science, $M$ athematics, and Reading. Advanced registration is required. Registrants are required to:

- Register in person on specific dates
- Pay a $\$ 25$ fee in the form of a M oney Order payable to the Treasurer-State of N ew Jersey
- 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 students 16 and 17 years 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 these students are required to visit the Office of Specialized Services (Room S-131) to obtain accommodations for their classes.

The Office of Testing Services 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 Makeup Testing

The Office of Testing Services administers makeup tests as a service for students who, for compelling and exceptional reasons, have missed a scheduled classroom examination. Students must receive prior permission from and make arrangements with their course instructors to take these examinations under specific conditions in the Office of Testing Services, R oom S-127.

## Testing for Online/Telecourses

The Office of Testing Services (OTS) administers examinations to students who are enrolled in online or telecourses originating at Bergen Community College. Faculty should contact the OTS at 201-447-7202 for information on testing procedures.

Students may take their required examinations during posted testing office hours and must follow the General Testing R equirements.

## World Language Testing

The College awards credit for World Languages through the N ew 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 O ffice of Testing Services at 201-447-7202, Room S-127.

## BASIC MATHEMATICS AND ALGEBRA RETESTS

To support the instructional objectives of the Developmental $M$ athematics program, retests for mathematics and algebra are administered by the Developmental $M$ athematics Center. Students must receive written permission forms from their instructors which they then present to the test administrator, during the hours noted on the permission form.

## TRANSFER TO BERGEN

Students who wish to transfer credits to Bergen Community C ollege need to complete the following steps:

1. All applicants are encouraged to apply online at http://admissions.bergen.edu, and then click on apply online.
2. Fulfill all admission requirements
3. Forward all official high school transcripts (or GED test scores) and official college transcripts from every institution attended to the Admissions and Registration Office, Bergen Community College, 400 Paramus Road, Room A-128, Paramus, NJ 07652.

The Transfer Evaluator will evaluate the college transcript and credit will be posted to the Bergen Community College Transcript. Students will be able to access their records and view their academic record online on WebAdvisor at http://go.bergen.edu > Log In > WebAdvisor for Students > A cademic Profile >Program Evaluation.

Bergen Community College will accept credit for courses taken at fully accredited colleges and universities provided that the course content is compatible and the course is applicable to the specified program of study. Only courses that have received a grade of "C" or above are accepted for transfer. Transfer credits are not included in computing the grade point average and are recorded as a " T " grade.

It is the student's responsibility to provide all the transcripts and documents needed to evaluate any previous educational experience in a timely manner.

No more than 45 transferred credits shall be applied toward an associate degree and no more than 18 transfered credits shall be applied toward a certificate. These credits may be compiled from a prior Bergen Community College degree/certificate, transfer credits from other institutions, proficiency and/or CLEP examinations. The list of approved subject examinations for CLEP credit is on page 18. The balance of credits required for any degree or certificate must be earned through actual course enrollment at Bergen Community College.

## Graduation Residency Policy

Students must be enrolled in the semester in which the degree will be conferred. Exceptions are made on a case by case basis for those students who complete their degree requirements elsewhere for up to 2 courses and up to 5 years from the last date of attendance. Students must abide by the Transfer Admissions Policy as stated above.

## Request to Take Courses at Other Institutions

Degree-seeking students desiring to take a course or courses at another institution must obtain the form entitled "Request Permission to Take a Course at A nother Institution" at the Office of Admissions and Registration, Room A-129, or from the Bergen Community College Web site at http://www.bergen.edu/forms, and have it completed and signed by the appropriateD epartment $H$ ead.

## TRANSFER TO OTHER INSTITUTIONS

What colleges do students attend after Bergen? M any of them transfer to N ew Jersey colleges. Bergen sends the largest number of its students to Montclair State University, William Paterson University, Ramapo College, Rutgers University (all campuses), and the New Jersey Institute of Technology. In addition, Bergen students have been accepted to and attended the following schools:

American University A rizona State University Baruch College (CUNY) Boston College Boston University Brown University
Cornell University East Stroudsburg University Fashion Institute of Technology Florida International University Fordham University Georgetown University Hampton University H arvard University James M adison University John Jay College (CUNY) Johnson and Wales University Lehigh University Long Island University Washington University

M anhattan College
N ew York University Pace University Parsons School of Design Penn State University Rensselaer Polytechnic Institute School of Visual Arts Smith College SUN Y: Albany, Binghamton, N ew Paltz, Stony Brook The N ew School University of Connecticut University of Delaware University of $M$ aryland University of $M$ assachusetts University of $M$ ichigan University of R ochester University of Vermont University of Virginia Yale University

## Transfer Agreements with Other Schools

Bergen Community C ollege has formal transfer agreements for one or more degrees or programs with the following colleges:

Berkeley College
Capella University Columbia University Dominican College
Fairleigh Dickinson University M anhattan College
M ontclair State University
N ew Jersey Institute of Technology
N ew York Institute of Technology
N ew York University -
The Steinhardt School
In addition, Bergen's general education courses and transfer degrees are generally accepted at most colleges without formalized articulation agreements.

For students transferring to four-year $N$ ew Jersey colleges and universities, NJTransfer (http://www.njtransfer.org) is a webbased data information system that allows the student to look up the transferability of our courses to these schools. The site also provides information about admissions, financial aid, scholarships and transfer recruitment events throughout the state.

Palmer College of Chiropractic Ramapo College Rutgers University St. John's University Saint Peter's College Seton H all University SUNY N ew Paltz Thomas Edison State College University of Phoenix William Paterson University

## New Jersey Transfer Articulation Principles

The New Jersey President's Council approved the following principles to govern transfer from associate to baccalaureate programs in N ew Jersey:

Students that graduate from a NJ community college with an A.A. or an A.S. degree, will be given priority for admission to public four-year colleges. O nce admitted, students will have the same status as students who have been attending the four-year college for their first two years (native students).

A s graduates of an approved transfer program, students will be given full credit for their courses, and should be able to begin their third year of study. H owever, if there is a change in major, students may be required to complete additional courses that are required for the new major.

Students may receive credit for courses in which they earned "D" grades, unless native students do not receive credit for "D" grades. "D" grades will not be accepted at Rutgers or NJIT.

Admission to the four-year college is not guaranteed. It may depend on the availability of seats.

Admission to the major of your choice is also not guaranteed, and may depend on your earning a minimum grade point average and completion of specific courses.
These principles do not apply to A.A.S. graduates.

## Scholarships

M any colleges offer scholarships to students who graduate with an A.A. or an A.S. degree. These scholarships vary in terms of grade point averages and the amount of money awarded.

Scholarships are also available for graduates who are members of Phi Theta Kappa (The International Honor Society of the Two-year College). These awards usually cover full tuition. A helpful Web site for the PTK awards is http://www.njccc.org, which lists all of the N ew Jersey colleges offering PTK scholarships and the person to contact.

Transfer counselors will be able to give students more information about the criteria for these awards.

## Transcript Request Forms

Transcript request forms are available in the O ffice of Admissions and Registration and online at http://www.bergen.edu/forms. College policy requires that a student's signature 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. O nly unofficial copies of a transcript will be issued directly to students.

Bergen Community College may award credit to individuals who have received a minimum score of 50 unless otherwise stated (see table below) for the following examinations. Scores must be received directly from the College Entrance Examination Board before credit is awarded. Credit received through CLEP is not necessarily transferable to other colleges and universities.

## SUBJECT EXAMINATION

| American Literature | 50 | 3 | LIT 201 |
| :---: | :---: | :---: | :---: |
| English Literature | 50 | 3 | LIT 206 |
| College French Level I | 50 | 6 | LAN 110 and LAN 200 |
| College French Level II | 62 | 6 | LAN 201 and LAN 202 |
| College German Level I | 50 | 6 | LAN 111 and LAN 210 |
| College German Level II | 63 | 6 | LAN 211 and LAN 212 |
| College Spanish Level I | 50 | 6 | LAN 113 and LAN 230 |
| College Spanish Level II | 66 | 6 | LAN 231 and LAN 232 |
| American Government | 50 | 3 | POL 101 |
| History of the US I: Early Colon. 1877 | 50 | 3 | HIS 111 |
| History of the US II: 1865-Present | 50 | 3 | HIS 112 |
| Introduction to Educational Psychology | 50 | 3 | PSY 103 |
| Introduction to Psychology | 50 | 3 | PSY 101 |
| H uman Growth and Development | 50 | 3 | PSY 106 |
| Principles of M acroeconomics | 50 | 3 | ECO 101 |
| Principles of M icroeconomics | 50 | 3 | ECO 201 |
| Introduction to Sociology | 50 | 3 | SOC 101 |
| Western Civ. I: Anc. N ear East-1648 | 50 | 3 | HIS 101 |
| Western Civ. II: 1648-Present | 50 | 3 | HIS 102 |
| Precalculus | 61 | 4 | M AT 180 |
| Calculus with Elementary Functions | 50 | 4 | M AT 280 |
| General Biology | 50 | 8 | BIO 101 and BIO 203 |
| General Chemistry | 50 | 6 | CHM 140 and CHM 240 |
| Information Systems and Computer Applications | 50 | 3 | INF 101 |
| Principles of Accounting | 50 | 6 | ACC 101 and ACC 201 |
| Principles of M anagement | 50 | 3 | BUS 207 |
| Principles of $M$ arketing | 50 | 3 | BUS 201 |
| Introduction to Business Law | 50 | 3 | BUS 233 |

M inimum Scores Required To Earn Credit Through The General Examinations

| English Composition with Essay | 50 | 3 | M ultiple Choice w/Essay W RT 101 |
| :--- | :---: | :---: | :--- |
| H umanities (choice of 2) | 50 | 6 | M usic Appreciation M US 101 <br> Intro to Art and Visual Culture ART 101 <br> World Literature I LIT 203 |
| M athematics | 50 | 3 | Contemporary M ath M AT 130 |
| N atural Sciences | 50 | 8 | Intro to Physics PH 185 and <br> General Biology BIO 101 |
| Social Sciences and H istory | 50 | 6 | Sociology SOC 101 and <br> Western Civ I HIS 101 |

## ADVANCED PLACEMENT EXAMINATIONS (AP)

Students who have taken one or more of the following advanced placement examinations may receive course credit with a score of three or above (see table below). Scores must be received directly from the C ollege Entrance Examination Board (CEEB) before credit is awarded.

CREDIT

| H istory of Art | $3,4,5$ | ART 102 and 103 | 6 credits |
| :--- | :--- | :--- | :--- |
| Biology | $3,4,5$ | BIO 101 and 203 | 8 credits |
| Calculus AB | $3,4,5$ | M AT 280 and 281 | 8 credits |
| Calculus BC | $3,4,5$ | M AT 280, 281 and 282 | 12 credits |
| Chemistry | $3,4,5$ | CHM 140, 141, 240 and 241 | 8 credits |
| Computer Science A | 4,5 | IN F 153 | 3 credits |
| Computer Science AB | 4,5 | IN F 153 | 3 credits |
| Economics | $3,4,5$ | ECO 101 and 201 | 6 credits |
| Environmental Sciences | $3,4,5$ | BIO 108 | 4 credits |
| History, European | $3,4,5$ | HIS 101 and 102 | 6 credits |
| History, U.S. | $3,4,5$ | HIS 111 and 112 | 6 credits |
| Physics B | $3,4,5$ | PHY 186 and 286 | 8 credits |
| Physics C: M echanics | $3,4,5$ | PHY 280 | 4 credits |
| Physics C: Electricity \& M agnetism | $3,4,5$ | PHY 290 | 4 credits |
| Language and Composition | $3,4,5$ | WRT 101 | 3 credits |
| Literature and Composition | $3,4,5$ | WRT 101 and 201 | 6 credits |
| Spanish | 4,5 | LAN 113, 230, 231, 232 | 12 credits |
| French | 4,5 | LAN 110, 200, 201, 202 | 12 credits |
| German | 4,5 | LAN 111, 210, 211, 212 | 12 credits |

## ENTRANCE REQUIREMENTS 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 by the availability of faculty, college laboratory, and clinical agency resources. To insure that all applicants 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.

All candidates for admission to the Dental Hygiene and N ursing programs are required to take a national standardized entrance examination. There is a $\$ 15$ fee.

If students have not taken the necessary high school prerequisites, the courses can be made up by substituting courses taken at Bergen. These courses must be taken before students 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. A pplicable college science courses taken more than ten years ago are not transferable. Students who hold a visa of any type may apply for a health career program after attending the College for a minimum of one semester.

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 certain 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 or Coordinator of their specific health career program during progression through required remediation. Applicants to Dental Hygiene, Diagnostic Medical Sonography, Nursing and Radiography programs must complete remediation prior to acceptance into the program.

Full and part-time students in Health Professions programs must carry personal medical health insurance.

N ursing students must carry personal medical health insurance, malpractice insurance, and be certified in cardio-pulmonary resuscitation (CPR) by the American Red Cross (Health Provider Certificate or Professional Rescue Certification). In addition, all nursing students are required to complete health examination forms upon admission to the program and fulfill the requirement for a yearly M antoux skin test for tuberculosis.

Students seeking admission to N ursing (D ay), Dental Hygiene, Diagnostic M edical Sonography, and Radiography must submit complete applications by M arch 1 for fall (September) admission. N ursing (Evening) applications are due by O ctober 1 for spring (January) admission. These deadlines may be extended, if classroom space permits.

## Criminal History Background Check Requirement

Clinical agencies mandate criminal history background checks for all individuals engaged in patient care, and all students must undergo criminal history background checks. These checks are conducted by an external vendor, and the information is sent to the College and to clinical agencies. A gency personnel will evaluate the information they receive and, at their sole discretion, make the final determination as to each student's ability to continue to engage in patient care in their agency. If a student is denied clinical placement by any clinical agency due to criminal history information, that student will be dropped from the program.

# Minimum Entrance Requirements for Health Professions* 

## DENTAL HYGIENE PROGRAM AAS.HP.DENTL

Program length: 24 months
Preadmission Test: Accuplacer
GPA for admissions eligibility: 2.50
High School prerequisite courses:
Chemistry, with lab; Biology, with lab; Algebra
College substitutions:
BIO109; MAT035; CHM 100
Application Deadline: March 1st of the current year.
Please Note: High school Biology is waived if college Biology, preferably BIO
109 is successfully completed. Eligible candidates are invited to sit for the
Dental Hygiene Entrance Examination.

## DIAGNOSTIC MEDICAL SONOGRAPHY AAS.HP.DMS

Program length: 24 months
GPA for admissions eligibility: 2.50
High School prerequisite courses:
AP level science; AP level physics; Algebra
College substitutions:
BIO109 (recommended); PHY185; M AT035
Application Deadline: March 1st of the current year.
Program Admits: Fall semester
Please Note: This is a regional program that utilizes clinical education centers throughout the state of New Jersey. Students might be required to travel to distant sites and provide their own transportation.

MEDICAL OFFICE ASSISTANT PROGRAM AAS.HP.M OA or CERT.M OAA
Program length: 24 months (associate degree program)
GPA for admissions eligibility: 2.00
High School prerequisite courses: None
Application Deadline: There is no deadline date for admissions.
Program Admits: Fall semester only.
RADIOGRAPHY PROGRAM AAS.HP.RAD
Program length: 24 months
GPA for admissions eligibility: 2.50
High School prerequisite courses:
1 year science; 1 year algebra
College substitutions:
BIO109; BIO209; MAT035
Application Deadline: March 1st of the current year.
Program Admits: Fall semester only.
Please Note: High school Biology is waived if college Biology, preferably BIO109 is successfully completed.

## RESPIRATORY THERAPY TECHNOLOGY AAS.HP.RESP

Program length: 24 months
GPA for admissions eligibility: 2.00
High School prerequisite courses:
Chemistry with lab; Biology with lab; Math
College substitutions:
BIO109; CHM 100; MAT035
Application Deadline: March 1st of the current year.
Program Admits: Fall semester
Please Note: High school Biology is waived if college Biology, preferably BIO109 is successfully completed.

## VETERINARY TECHNOLOGY AAS.HP.VET

Program length: 24 months
GPA for admissions eligibility: 3.00
High School prerequisite courses:
No high school prerequisites
College substitutions:
BIO115; VET102; VET103; CHM112; Elective, college level math, preferably Finite M ath
Application Deadline: November 1st of the current year.
Program Admits: Spring semester only.
Please Note: Applicants will only be accepted once the pre-requisites stated above have been successfully completed. Applicants are strongly encouraged to meet with a program official regarding application procedures. Travel is required for all students enrolled in this program.

NURSING AAS.NURS.DAY
Program Length: 2 academic years
Preadmission Test: Accuplacer
GPA Requirement: 3.0
High School prerequisite courses:
Chemistry and biology with Lab; Algebra
College substitutions:
CHM 100, BIO109 and MAT035 or MAT031/032
Application Deadline: March 1st for fall admission
NURSING EVENING PROGRAM AAS.NURS.EVE
Program Length: 2 academic years
Preadmission Test: Accuplacer
GPA Requirement: 3.0
High School prerequisite courses:
Chemistry and biology with Lab; Algebra
College substitutions:
CHM 100, BIO109 and MAT035 or MAT031/032
College prerequisite courses:
BIO109 ,BIO209 and BIO104; WRT101 and 102; PSY101 and 106; SOC101
Application Deadline: October 1st for spring admission
Nursing Program- Mobility LPN to RN- Days AAS.NURS.M BL.DAY
Special Criteria:
Open Only to LPNs with NJ license and one year of work experience
Program Length: 2 academic years
Preadmission Test: Accuplacer
GPA Requirement: 3.0
High School prerequisite courses:
Chemistry and biology with Lab; Algebra
College substitutions:
CHM 100, BIO109 and MAT035 or MAT031/032
College prerequisite courses:
BIO109 ,BIO209 and BIO104; WRT101 and 102; PSY101 and 106; SOC101
Bridge Into Nursing Course- registration per permission of Nursing program director
Application Deadline: March 1st for fall admission

Nursing Program- Mobility LPN to RN- Evenings AAS.NURS.MLB.EVE
Special Criteria:
Open Only to LPNs with NJ license and one year of work experience
Program Length: 2 academic years
Preadmission Test: Accuplacer
GPA Requirement: See college's web-site for current information
High School prerequisite courses:
Chemistry and biology with Lab; Algebra
College substitutions:
CHM 100, BIO109 and MAT035 or MAT031/032
College prerequisite courses:
BIO109,BIO209 and BIO104; WRT101 and 102; PSY101 and 106; SOC101 Bridge Into Nursing Course- registration per permission of Nursing program director
Application Deadline: October 1st for spring admission
RADIATION THERAPY TECHNOLOGY PROGRAM CERT.RAD.THERAPY
Program length: 12 months
GPA for admissions eligibility: 2.50
Prerequisite courses:
Registered or registry eligible Radiologic Technologist; two biology, with labs (BI0109 \& 209); Algebra/ MAT045; General physics, PHY185. In addition to the above stated requirements, candidates cannot be accepted into the program until at least 2 of the 5 general education courses have been completed: MAT180, MAT250, CIS158, WRT210, SPE111. Three of the above listed general education courses may be taken concurrent with the program. Successful completion of all 5 courses is required by the American Registry of Radiologic
Technologists and the NJ Department of Environmental Protection.
Application Deadline: March 1st of the current year.
Program Admits: Fall semester only.
Please Note: Students who are interested in the program should make an appointment to meet with the coordinator regarding admissions.

## SURGICAL TECHNOLOGY PROGRAM CERT.SURG

Program length: 12 months
GPA for admissions eligibility: 2.00
High School prerequisite courses:
High school graduate, or GED
College substitutions: none
Application Deadline: March 1st of the current year.
Program Admits: Fall semester only.

## VASCULAR TECHNOLOGY CERT.VAS.TECH

Program length: 12 months
GPA for admissions eligibility: 2.50
Admissions Requirement:
ARDMS Registry Status
Applicant must be a graduate of a CAAHEP approved sonography program Students with a bachelor's degree are eligible
Application Deadline: March 1st of the current year.
Program Admits: Fall semester
Please Note: This is a regional program that utilizes clinical education centers throughout the state of New Jersey. Students might be required to travel to distant sites and provide their own transportation.

## HEALTH SCIENCE PROGRAM AAS.HP.HLTH.SCI

Program length: 12 months
GPA for admissions eligibility: 2.50
Application Deadline: March 1st of the current year.
Program Admits: Fall and Spring Semester
Please Note: Qualified students will be awarded 30 transfer credits. The credits will be applied to the degree in Health Science upon the completion of the curriculum. It is essential to understand that this program does not entitle the graduate eligibility to advanced certification or licensure within the Health Professions discipline.
Students who enter into this program must be aware of the Bergen Community College policy on the number of credits that must be taken at this college. Students enrolled in the AAS degree in health sciences must satisfy the English, Mathematics and algebra basic skills requirements.
Applicant graduated from a program that has acceptable accreditation agencies that is comparable to our Health Professions disciplines.
Transcripts \& credentials will be evaluated by an appointed admissions committee.

## Special Student Programs

## Bergen C ommunity College has special programs to meet the individual needs of each student. Whether students are recent high school graduates, working professionals returning to college, talented high school students or senior citizens - Bergen has a program to <br> help them reach their goals.

> Participation in the Honors Program, C ooperative Education, Service Learning, E ducational O pportunity Fund, C ollege Experience Program, and Study Abroad can enrich a student's college experience. Check bulletin boards for information about special activities sponsored by these programs during the
academic year.


Educational Opportunity Fund (EOF) Program
The Educational Opportunity Fund Program was instituted by the N ew 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. In addition to the grant, students accepted into the program have access to a number of support services including tutoring and counseling.

Tutoring is offered in Mathematics, English, Science and English as a Second Language. Tutoring in other disciplines may be offered if there is a need. Personal, academic and career counseling is available in both individual and group settings. Each student is required to meet with his or her counselor on a regular basis. Additionally, the counseling staff, working together with the Financial Aid Office, can offer financial aid advice as well as help with the preparation and follow-up of applications.

All students who are deemed eligible for admission to the EOF Program and who are entering college for the first time are encouraged to attend a six-week summer program immediately prior to the fall semester of the freshman year. The summer program helps students smoothly transition to the college environment, and also focuses on academic preparation for the fall semester. The program features orientation presentations and the opportunity to take developmental courses.

To be eligible for an Educational Opportunity Fund grant, a student must:

- Be a United States citizen or have a permanent visa.
- Be a legal resident of the State of N ew Jersey for at least 12 months.
- Enroll or be enrolled as a full-time student (12 or more credits) in a curriculum leading to a degree or certificate.
- Exhibit evidence of financial need and an educational background indicating a need for improvement in basic skills.

D ependent and independent students are financially eligible for an EOF grant based on the following scale:

| H ousehold Size | Gross Income for Previous Year not to Exceed* |
| :---: | :---: |
| 1 person | $\$ 19,600$ |
| 2 people | $\$ 26,400$ |
| 3 people | $\$ 33,200$ |
| 4 people | $\$ 40,000$ |
| 5 people | $\$ 46,800$ |
| 6 people | $\$ 53,600$ |
| 7 people | $\$ 60,400$ |
| 8 people | $\$ 67,200$ |

* Subject to change. Add $\$ 6,800$ for each additional member of the household.

The EOF Program is not an entitlement program. Initial EOF eligibility is determined on the basis of both economic and educational criteria. Because a student or a student's family currently falls within the income criteria does not make the student automatically eligible for EOF. Although students may qualify for the program, admission criteria give priority to first-time, full-time freshmen and to EO F transfer students in good standing from another EOF Program.

Those interested in the Educational Opportunity Fund Program should contact the EOF office in Room A-123, or call 201-447-7139.

## College Experience Program (CEP)

The College Experience Program (CEP) is intended as a mechanism for 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 one course per session.

## Eligibility:

1. High school junior or senior at least 16 years old.
2. O verall average of "B" (3.0) in high school courses.
3. Written approval by parent and high school officials. H ome schooled students must meet all requirements.

Students who participate in the CEP should note that all grades earned as a result of courses attempted or completed serve to establish a permanent record at Bergen. A uditing courses is not permitted in the CEP. A pplication forms for the CEP are found in the back of the registration booklets published each semester. These are available at the Office of Admissions and Registration or by calling 201-447-7218.

College Experience Program applicants must obtain special approval before registering for courses. Applications must be returned to the Office of Admissions and Registration according to the published deadlines.

## Academic Developmental Programs

All degree-seeking students and all non-degree-seeking students who reach their 11th attempted credit must take a Basic Skills Placement Test in both English and $M$ athematics unless they qualify for a waiver. (See Basic Skills Placement Test, page 15). Students placed into English Basic Skills must continue to enroll in these developmental courses until the requirements are completed. Beginning in the Fall 2005, students matriculated in A.S. degree programs must begin their required developmental mathematics courses by their 16th attempted credit. These preparatory courses emphasize the development of basic reading, writing, computation, and algebra skills which will help students perform successfully in college-level courses. Students are urged to seek academic advisement in choosing these and other courses.

English Basic Skills Requirements. Based on the results of the English portion of the Basic Skills Placement Test, a student may be placed into one of four entry-level English courses: Developmental Skills I and Developmental Skills II, English Skills, Directed Studies in Writing and Composition I, or Composition I alone. Students might be 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 Requirements. Based on the results of the $M$ athematics portion of the Basic Skills Placement Test, a student may be placed into developmental math courses: Basic $M$ athematics (M AT-011) or the sequence of Algebra $A$ and $B$ (M AT-031 and M AT-032), or Algebra (M AT-035).

Students are encouraged to begin developmental mathematics as soon as they enroll at the College. Students matriculated in A.A. and A.S. degree programs must begin their developmental math placement sequence of courses by their $16^{\text {th }}$ attempted college credit.

## Academic Intervention and Monitoring System (AIMS)

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

- Special orientation and registration session.
- Preselected program of courses and services, including Basic $M$ athematics (Computation), Developmental Skills I (English), Basic Communications (Speech), Introduction to College Experience course, and tutoring.
- Prescheduled patterns of courses.
- Small classes, averaging 15-18 students.
- A full-time credit limit of 14 institutional credits.
- Individualized attention from both classroom instructors and counselors.

The AIM S program is a joint effort supported by the Division of Arts and $H$ umanities; the Division of Business, $M$ athematics, and Social Sciences; the Division of Student Services; and the Office of the Academic Vice President. To discuss the advantages of the AIM S program in further detail, please contact the AIM S program coordinator, R oom A-333D, at 201-493-3605.

## American Language Program (ALP)

Students whose native language is not English admitted to or planning to attend Bergen Community College will be given the Levels of English Proficiency Test (LOEP). Testing results will be used to place students into American Language Program (ALP) courses at Bergen Community College. Nondegree college credits earned upon successful completion of A merican Language Foundation, Level I, II, or III may not be used to fulfill degree requirements. English Composition I and II "N" sections for international students only fulfill the same college degree requirements as English Composition I and II.

## Courses

American Language Foundations
ALP-004, 005, 006, 007, and SPE-009
A merican Language I
ALP-041, 042, 043, 044, and SPE-001
A merican Language II
ALP-051, 052, 053, 054, and SPE-002
A merican Language III
ALP-061, 062, 063, 064, and SPE-003
Students placed in the ALP may enroll for a maximum of 15 credits per semester. Students who wish to enroll on a part-time basis should seek 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 program and have passed required exit examinations. Upon completion of required ALP courses, students must take a mathematics placement test or be granted a waiver.

## Cooperative Education and Career Development Center

The Cooperative Education and Career Development Center, located in Room C-100, involves students in a process that helps develop their self concept and career decision making skills. As educators, the Center strives to prepare students to meet their individualistic goals by delivering comprehensive services through career development programs, experiential learning and employment services. The Center values its role as a community partner and a link for students to the broad opportunities within and beyond Bergen Community College. For additional information contact the office at 201-447-7171 or http://www.bergen.edu/coop.

Cooperative Education is an academic program that provides students the opportunity to apply classroom learning to practical work experiences. Each year several hundred students and employers participate in this experiential learning program that provides students with meaningful and valuable learning as well as an opportunity to obtain specific skills related to career goals. On campus, students continue their usual academic program and participate in a Co-op seminar in which they explore the relationship betw een academics and day-to-day work situations. Students receive academic credit for successful completion of the Co-op Work Experience.

To be eligible, a student must have fulfilled the prerequisite requirement(s) of the Co-op course. Interested students should contact the Cooperative Education and Career Development Center to meet with a counselor and obtain assistance in locating positions related to their educational and career goals. For information call
201-447-7171, http://www.bergen.edu/coop or visit the Center located in Room C-100.

Service Learning is academically-based community service. W hile studying theory and course content in their classes, students have the opportunity to contribute to the community by working in a community-based organization or nonprofit agency. Students participate in Service Learning by choosing this option offered in a number of academic courses each semester and then select an assignment with a community partner organization which corresponds to their course content. Students have
worked with social service organizations, government agencies, hospitals, mental health centers, schools and many other organizations and agencies. For further information, call 201-4477171 or visit the Center located in R oom C-100.

Career Planning is encouraged at any time during a student's college experience, but is especially effective when students explore career options early in their education. Career counselors help students develop an understanding of themselves and the world of work; they guide students in selecting an academic program, choosing a career path, and preparing for employment. The Center also offers career assessment, vocational inventories, including the computerized career assessment, SIGI Plus, an educational and career planning software program that integrates self-assessment with in-depth and up-to-date career information. It is easy to use and provides students with a realistic view of the best educational and career options for their future success. Throughout the year there are many workshops and special events, hosted by the Cooperative Education and Career Development Center, designed to help students to move forward in career development.

Employment Services are available to students needing a parttime or summer job to pay expenses or a full-time position upon graduation. Students can use the current listing of employment opportunities, attend a job fair, and/or participate in on-campus recruiting. Assistance with resume writing, interviewing skills, and job search strategies on an individual and/or group basis is provided for students.

On Campus Recruitment Employers, offering full-time, parttime, and temporary positions, are available throughout the fall and spring semesters in front of the cafeteria.

Federal Work Study Each year student aides work on-campus in a wide variety of positions such as tutors, computer support, media technicians, laboratory assistants, receptionists, and Student Ambassadors. The College Work Study program is located in the Cooperative Education and Career Development Center (Room C-100) and assists both Federal Work-Study (FWS) students and student aides with departments needing student employees.

Federal Work-Study is a federally funded program. Students who are United States citizens or permanent resident aliens may apply and be awarded federal work-study that is based on financial need. FW S students may then earn up to the award specified by the Financial A id Office in its award letter for the academic year. To be eligible students must file a Free Application For Federal Student Aid (FAFSA). The Financial Aid O ffice will notify all eligible students of FW S award and will monitor their earnings. Students are referred to the College Work Study Program for employment based upon student interests and skills as well as position availability.

Federal Work-Study recipients who can provide their own transportation are invited to explore off-campus opportunities at community service agencies. These positions (up to twenty hours weekly) can prove to be personally enriching while providing exposure to professional contacts that may be beneficial in furthering career goals. Off-campus job opportunities at community service agencies can be arranged by visiting the Cooperative

Education and Career Development Center. For information call 201-447-7171, http://www.bergen.edu/coop or visit the Center located in Room C-100.

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 typically be picked up within 72 hours. Students can visit the "Career Doctor" in the Student Center, Student Cafeteria, and East H all, M onday or Thursday between 10:30 a.m. and 11:30 a.m.

Career Resource Library is available to all students for research on career fields, salaries, resume writing, interviewing techniques, and job search strategies. The Resource Library is open M -F 9:00 a.m. - 5:00 p.m. and Tuesdays 9:00 a.m. -7:00 p.m. There is no need for an appointment to use the library.

## Honors Program

H onors sections of General Education courses are offered during the Fall, Spring, and Summer Semesters. The Honors Program offers courses in the H umanities, the Social Sciences, Business, Science, and $M$ ath. A complete listing of honors courses being offered in a given semester is available in that semester's registration booklet. Students with a strong high school record, SAT scores of 1100 or higher on the old test, 1700 or higher on the new test, or a college GPA of at least 3.4 are eligible for the program and are invited to enroll.

Honors students enjoy smaller and more challenging classes taught by excellent faculty. They have access to an honors advisor each semester, may attend transfer seminars specifically designed for honors students, and have their honors courses designated as such on transcripts. They also have the opportunity for priority registration during each semester when they are eligible to take honors courses. Participation in the H onors Program also enhances students' prospects for transferring to desirable universities, often with scholarships.

For further information, please contact the Director of the College H onors Program at 201/493-3550 or visit the H onors Program Web page at http://www.bergen.edu/honors.

## Study Abroad

Through Bergen Community College's membership in CCIS (C ollege Consortium for International Studies), Bergen students have more than 50 programs in over 30 countries throughout the world from which to choose. Programs are offered in Africa, Asia, Europe, and Latin America. Programs are available in Argentina, Australia, Bulgaria, Canada, Chile, China, Costa Rica, Cyprus, Dominican Republic, Ecuador, England, France, Germany, Greece, Hungary, India, Italy, Jamaica, M exico, Nicaragua, Portugal, Russia, Scotland, Spain, and Switzerland.

Study abroad experiences range from a summer, to a semester or an academic year. The programs are, for the most part, designed for undergraduate credit. Academic studies may include the language and culture of the host country, as well as business, art, the European Union, service-oriented work experiences and more. Study abroad programs are designed for cul-
tural immersion and many sites offer a chance to live with a family in the host country. You must have completed one semester at Bergen, be a full-time student, and be in good academic standing in order to participate. At least a 2.5 cumulative grade point average on a 4.0 scale is required. Certain programs require a 3.0 average.

Financial aid may be used for study abroad programs. It is a good idea to apply early. Early application allows the financial aid office to complete the review of eligibility for financial aid and to get all of the paperwork done. Be sure to apply no later than fifteen weeks prior to departure. Special scholarships are also available for students demonstrating financial need.

To find out more about this opportunity, make an appointment with the Coordinator of World Languages and Cultures at 201-447-7167. A comprehensive explanation of the study abroad program is available on the Web site at:
http://www.bergen.edu/studyabroad.

## Continuing Education

The Division of Continuing Education is the entrepreneurial arm of Bergen Community College. The Division's emphasis revolves around social enterprise which we define as economic development through job training, career enhancement and lifelong learning. The Division serves as a testing ground for new programs, many in partnership with associate degree programs. It also serves as a pathway for adults who seek to pursue higher learning within the institution and beyond. Educational programming for young adults, teens, and children allow for exploration in a number of compelling pre-college options. A wide range of programming is offered for ages 8 to $13,14-17,18$ and older.

Through the Division of Continuing Education, students are able to sample a variety of learning formats. Classes are often hands-on. Students are able to learn in the classroom, through a variety of field trips or online. The Division often brings training to the student's workplace either through the Center for Business and Industry or through a worksite-based open enrollment program. Classes are offered in the evening or on weekends to accommodate working adults and school children. Daytime schedules and asynchronous online courses mean that there is a program to meet almost any schedule.

To ensure the Division remains current with the needs of Bergen County residents, the staff reaches out to create partnerships with industry groups, non-profit organizations and other educational institutions. Course topics are current, with new titles offered continuously based upon labor market and recreational trends. Current topics include: SAS Certification, Web Server $M$ anagement, Web Design and Development, Cisco Certified Network Associate, M acromedia and Desktop Publishing, Project M anagement, eBay Entrepreneurship, Finance, Post Baccalaureate Alternate R oute Teacher Certification, M anagement Development, N ew Jersey Real Estate Sales and Broker's courses, Drug and Alcohol Counseling, Medical and Radiology Billing, Certified Nursing Assistant, Hemodialysis, American Sign Language, Alternative H ealing and Reflexology courses as well as Fashion and Interior Design programs and many courses for those in the Construction trades.

The Center for Business and Industry offers customized organizational development and training programs to businesses in Bergen County. The goal is to offer training which will help employees work smarter and more efficiently. Improving employee skills and employee confidence will help a business improve their bottom line.

The Center recognizes that successful training requires a plan. O ur plan includes: needs assessment, customized training and organizational development solutions, follow-up evaluations and outcome driven recommendations.

Programs offered to our business community include leadership and management skills, project management, presentation and business writing skills, conflict resolution, customer service, as well as all levels of computer training and English as a Second L anguage. Additionally, Continuing Education partners with the N ew Jersey Community College Consortium for Workforce and Economic Development in order to bring the services of our entire network to businesses located throughout the state. The Center also provides assistance with customized training grant applications so that training may be underwritten by funding through the department of Labor and Workforce Development.

For more detailed information on the Division of Continuing Education and a comprehensive course catalog, please contact the Division of Continuing Education at 201-447-7488, menu option \#4, or visit the Registration Office located in the Technology Education Center, Room 115. Office hours are M onday through Thursday 8:30 a.m. to 7:00 p.m., and Friday, 8:30 a.m. to 5:00 p.m. Information may also be viewed online at http://www.bergen.edu/continuinged.

## Institute for Learning in Retirement (ILR)

Senior citizens over 55 years of age participate in Bergen Community College's Institute for Learning in Retirement (ILR). Short courses covering everything from Ancient History to the Theory of Relativity are offered each semester.

The College's ILR is one of 250 institutes, affiliated with Elderhostel, established to meet the needs and interests of adults who share a love of learning. Dues are $\$ 85$ a year. M embership includes pool and library privileges and other benefits. There are no prerequisites, exams, or grades for participants. For further information or to be placed on the mailing list, call 201-612-5464 and leave name, address, and telephone number.

## Small Business Development Center (SBDC)

The Small Business Development Center (SBDC) at Bergen Community College is one of eleven regional centers statewide with headquarters at the Rutgers University Graduate School of $M$ anagement ( N JSBDC) and is part of a national network of over 1,000 centers nationwide. These centers offer comprehensive management consultations and technical assistance to the small business community. The SBDC is partially funded by the U.S. Small Business Administration, NJ Commerce and Economic Growth Commission, as well as the private sector. Expert advice is provided at no cost, on a confidential one-onone basis by SBDC professional staff and private consultants.

A reas of counseling include, but are not limited to:

- A ccounting/Recordkeeping
- Advertising
- Business Planning
- Cash Flow M anagement
- Employment Issues
- Financial M anagement
- Government Procurement
- International Trade
- M arketing Strategies
- Start-up/A cquisition Sales

The SBDC regularly conducts low-cost workshops covering entrepreneurial subjects such as start-up issues, marketing, financing, and the business plan. The College's state-of-the-art technology, library, and research resources are available.
For further information, visit the SBDC, located in the Philip Ciarco Jr. Learning Center (see description below), or call 201-489-8670. C onsult the Continuing Education catalog for more information.

## Philip Ciarco Jr. Learning Center

The Philip Ciarco Jr. Learning Center, located at 355 M ain Street in H ackensack, was founded by the C ollege in 1970 primarily to provide educational and counseling services for adults who have not completed a formal high school education and for adults who are interested in studying English as a Second Language. Since then, many thousands of adults have enrolled at the Center. A significant number of these adults have gone on to college and other post-secondary training, while many others have enrolled to improve their quality of life through language acquisition or through the development of workplace skills for employment or job advancement.

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

Adults seeking to earn a Bergen Community College associate degree can also begin their program at the Ciarco Learning Center. The facility houses spacious seminar rooms, computer laboratories, and student lounge areas. The Center provides a welcoming and supportive environment for adult learners. For further information, call the Ciarco Learning Center at 201-489-1551 or visit our Web site at: http://www.bergen.edu/CiarcoC enter.

The following programs and services are offered through the C iarco Learning C enter:

- Adult Basic Skills
- Community Counseling Services
- NJ Public Information Job Search N etw ork Site (http://www.wnjpin.state.nj.us)
- Workplace Employability Skills
- High School Equivalency (GED) preparation courses
- SIGI (System Information Guidance Interaction) Career Information
- English as a Second Language (ESL)
- Citizenship Preparation
- College-Level Courses
- Inmate Education (Bergen County Sheriff's Department)
- Work First N ew Jersey Programs
- On-site Corporate Training
- On-site Workforce D evelopment
- Cisco N etworking A cademy
- Small Business Development C enter
- Official State of $N$ ew Jersey GED Testing Site
- NJ Department of Labor Workforce Learning Link
- IBM Adult Literacy Reading Recognition Program
- NJ Department of Labor Basic Skills Program; GED ESL \& Civics Program


## Community Counseling Services.

Free counseling services for adults include:

- Guidance for making decisions about jobs/careers
- Guidance for developing employability skills
- Counseling for completing high school education
- Planning college education
- Locating special educational and training programs
- Referrals to agencies providing specialization in personal issues
- A cademic counseling for enrolled students

Links with Business and Industry. The Ciarco Learning Center extends its scope of services by providing customized training programs for business and industry that stress the attainment of measurable objectives by the student. Specific components of these programs focus on Basic Skills development (reading, math, and critical thinking skills); English as a Second Language, which includes work-related communication skills and general communications; Work Place M aturity Skills, together with basic computer literacy and software applications; and GED preparation. These programs can be sponsored solely by the company, labor union, or through collaborative ventures with the Department of Labor and the federal TRA Program.

Additional partnerships for Workforce Economic Development are provided through linkages with the Bergen County Workforce Investment Board (WIB), The Bergen County One-Stop Career Center, and the N ew Jersey Community College Consortium.

The Helen L. Haber Scholarship offers a $\$ 500$ scholarship awarded annually to a qualified woman on the basis of financial need and educational commitment.


Bergen Community C ollege provides the option of registering in person or online. WebAdvisor accounts are available for all students enrolled in credit programs. Sign up for a WebAdvisor account by visiting
http://go.bergen.edu and selecting WebAdvisor for Students. Registration books, containing the course schedules, are published each semester.

## Academic Advisement

Student course advisement is provided by faculty throughout the year on a drop-in basis in the Academic Advising Center, Room A-101, in the Student Center, and at Late Registration. Counselors are available by appointment in the Counseling C enter, R oom A-118.

## New Student Orientation

Prior to the start of classes, an orientation program is held to provide an opportunity for new students to become acquainted with college objectives, facilities, and programs. Students also tour the campus and attend various social functions. Information pertaining to the orientation program is mailed to all entering students.

## Registration

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

Priority Registration. Currently enrolled students are given priority over all new students at the start of each semester's registration period. Students who have earned the most credits will beinvited to register first. Returning students may call the Office of Admissions and Registration to request a priority registration date based on their completed credits.

Early Registration. After the Priority Registration period, all students will be permitted to register.

Ongoing Registration. Two to three weeks before the semester starts, students may encounter long registration lines and a high proportion of closed course sections. Payment of tuition and fees in full is expected at the time of registration.

Special Registration. Waivers will be accepted and applied only if the student registers on the designated date(s). If a student registers prior to the designated date(s), waivers will not be accepted; in these instances, the student will be responsible for all tuition/fees. For more information please see pages 29-30.

Late and/or Change of Registration. Through the first week of classes late and change of registration will be accepted. There is a \$10 fee for each occurence, if applicable.

## Web Registration via WebAdvisor

WebA dvisor is a Web interface that allows students to register online and access their records at the College. WebAdvisor accounts are availablefor all students enrolled in credit programs. M ost students have already been issued a WebAdvisor user name and password and may begin using WebAdvisor immediately by logging in. Otherwise, eligible students may sign up for a WebAdvisor account online by visiting http://go.bergen.edu and selecting WebA dvisor for Students >I'm new to WebAdvisor. For more information, please go to http://go.bergen.edu. A valid e-mail address on file with the college is required to use WebAdvisor.

## 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, and tuition refunds. 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 referring to the official academic calendar and complying with the dates and procedures contained therein. The calendar is published in each semester's registration booklet.

## SPECIAL REGISTRATION

Waivers will be acccepted and applied only if the student registers on the desingated date(s). If a student registers prior to the designated date(s), waivers will not be accepted; in these instances, the student will be responsible for all tuition/fees.

## 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 is available following the registration of all other students. All applicable fees must be paid. Senior Citizens Registration will occur in person on the specific dates and times designated. All prerequisites and basic skills testing requirements must be met. Persons participating in the Senior Citizens program must have established residency within New Jersey for a period of 12 months prior to enrollment at Bergen Community College.

## Veterans

Students planning to receive Veterans Administration educational benefits should report to the $O$ ffice of Admissions and Registration, Room A-129, 201-447-7218, before the beginning of each semester of attendance, including summer session. Applications 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 Jersey National Guard

A $N$ ew Jersey resident who is currently an active member of the N ew Jersey N ational Guard or a child or spouse of an active member killed in the performance of military duty is entitled to enroll in a maximum of 16 credits per semester without paying tuition. Tuition-free enrollment is permitted only to the extent that federal and state financial aid does not cover tuition costs; however the appropriate financial aid forms must be filed and reviewed by a

Financial Aid advisor. Applicable fees must be paid by the student. Additionally, any child or surviving spouse of a member of the New Jersey National Guard who has completed Initial Active Duty Training and was killed in the performance of military duties while on Active Duty Training shall be permitted to attend regu-larly-scheduled courses and receive up to 15 credits per semester tuition-free as per the "H igher Education Incentive Funding Act."

## New Jersey World Trade Center Scholarship Program

Scholarships are available to eligible students enrolled in an institution of higher education. This program also includes a dependent child or surviving spouse who must be enrolled on a full-time basis. Students who are in possession of a bachelor's degree are not eligible. Scholarships shall be awarded annually for the cost of a degreefor dependent children or surviving spouses of persons who were N ew Jersey residents on September 11, 2001 who were killed in the terrorist attack on September 11, 2001, or who subsequently died as a result of injuries received in this attack, or who were missing and officially presumed dead as a direct result of the attack. This tuition-free program shall include the hijackings of American Airlines Flight 11, American Airlines Flight 77, United Airlines Flight 175 and the crashes at the World Trade Center in N ew York City, the Pentagon in Washington, D.C. and in Somerset County, Pennsylvania. In order to be granted this award, those students must be deemed to have financial need. In order to apply for the New Jersey World Trade Center Scholarship, the student must complete a scholarship program application and submit it to the Higher Education Student Assistance Authority. The Authority will determine the student's eligibility for the scholarship and obtain verification from the N ew Jersey Department of Law and Public Safety concerning the relationship of the dependent child or surviving spouse to the terrorist attack of September 11, 2001.

Before payment may be made to an eligible student, the institution must first certify that the student has registered full time for an academic term and that the student is meeting the minimum standards for academic performance and academic progress at the institution in accordance with NJCAC 9A9-210.

## Law Enforcement Officer Memorial Scholarship Program

The Law Enforcement Officer M emorial Scholarship Program - administered by the New Jersey Higher Education Student A ssistance Authority - applies to a surviving spouse and/or to a dependent spouse of a law enforcement officer killed in the line of duty during the September 11, 2001 attack. Enrollment must occur within eight years of the death of the law enforcement officer following graduation from high school. These scholarships shall be awarded annually to the dependent children of $N$ ew Jersey law enforcement officers who were killed in the line of duty for the costs of their undergraduate study. The dependent child must be enrolled or plan to be enrolled as a full-time student in good standing in a curriculum leading to a valid degree at an institution of higher learning in $N$ ew Jersey in order to be eligible to receive a Law Enforcement Officer M emorial Scholarship. Students who already possess a Baccalaureate D egree are not eligible. Before payment may be made to an eligible student, the institution must certify that the student has registered on a full-time basis.

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

N ew 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 and be eligible to receive tuition credit in an amount not to exceed $\$ 2400$. Students will be eligible for this tuition credit provided that available classroom space permits and those tuition-paying students constitute the minimum number required for the course. Registration must occur on designated days only. A letter from the municipality must accompany the registration to the Financial Aid Office.

The forms needed to apply for this tuition-credit program are available at local municipal offices.

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. Upon completion of each semester, the volunteer shall submit a transcript to the municipality to be maintained in a permanent record. The volunteer or the dependent child or spouse shall maintain a "C" grade average in order to continue eligibility for the tuition credit program. Students should contact the Financial Aid $O$ ffice at 201-447-7148 for additional information.

## Unemployed Persons

Bergen County residents who have been in the labor market (full-time employment or active pursuit of full-time employment, or a combination of the two) 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 tuition-free 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; therefore, you must file the Free Application for Federal Student Aid (FAFSA) by June 1 for the fall semester waiver; O ctober 1 for the spring semester waiver; and A pril 1 for the summer sessions waiver. The student must pay applicable fees. All registrations under this program are on a space available basis at time of registration.

To be eligible for the tuition waiver, you must submit to Bergen Community College the New Jersey Department of Labor's Unemployed Person Training Form (Tuition Waiver Program). You must submit this statement each semester or session, and it must be dated within 30 days of the tuition waiver registration date for that semester or session.

For additional information, see http://www.bergen.edu $>$ Student Services > Financial Aid > Unemployment Tuition Waiver.

## Bergen County Employee Registration

Persons employed by the county of Bergen may register for six credits without payment of tuition, provided space is available. County employees are responsible for payment of all applicable fees. This registration is conducted in person only on the date(s) and time so designated in the college calendar. County employees must bring a letter from their employer. All prerequisites and Basic Skills Testing requirements must be met.


## Tuition and Fees

## Bergen C ommunity College is the affordable solution to higher-cost higher education. At Bergen, students enjoy all the learning advantages of a big-name school at a fraction of the cost.

In all respects, starting an education at Bergen is a smart move.


Tuition and fees are payable at the Bursar's office, located in Room A-229. Checks and money orders must be made payable to Bergen Community College and have student's College ID number on the face. Visa, M asterCard, and Discover are also accepted via WebAdvisor, in person, or via fax. Cash payments are accepted in person at the Bursar's Office, Room A-229.

Students who register in person will be given 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. Students who register using WebAdvisor may view their account balance and pay online immediately after registering by going to Account Balance on the Student M enu or Make a Payment. Students may also take advantage of the College's deferred payment plan by calling A cademic M anagement Services (AM S) at 800-635-0120.

Scholarships and other financial aid must be presented at the Financial Aid Office in order to be considered for payment of tuition and fees.

No student may be enrolled in classes until all outstanding charges have been paid. Tuition and fees are applicable only to the semester for which they are paid.

## Admission Fees

R einstatement Fee ( N onrefundable) \$25.00
Tuition Deposit for N ursing and H ealth Professions Admitted Students
(N onrefundable and nontransferable)
A nonrefundable tuition deposit is required of full-time and parttime first-year N ursing and H ealth Professions students at the time of their acceptance. The Acceptance Form will contain a specific due date for payment of the deposit and the return of the form. An accepted student may submit a written request for an extension until $M$ ay 1 . Written requests for extensions will be granted and will not jeopardize a student's admission to the College.

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

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

## Technology Fee

Payable by all students each semester or session. The technology fee partially defrays the cost of the development and replacement of instructional technology including expanding and improving internet access, maintenance of academic computing labs and networks, maintenance of desktop computers and multimedia labs, and expanding distance learning opportunities for students. This technology fee is non-refundable and payable each semester or session on a per credit basis.

Special Registration Fee: $\$ 10.00$ per student per semester. The special registration fee covers the cost of transcripts, parking permits, student ID cards, and readmission fees.

Add/Drop Fee. Any student who adds and/or drops a course section during Change of Registration will incur the fee of $\$ 10.00$ per occurrence. Change of Registration takes place during the first week of the semester. The actual dates are published in the Registration booklet each semester. "Weeks" are figured based on the starting date of the semester. For, example if the semester starts on a Wednesday, the first week of classes ends on the following Tuesday. Appeals for a refund of the drop/add fee may be made by filing the appropriate form located at the Office of Admissions and Registration, Bursar's Office or online. Forms may be mailed to the Office of Admissions and Registration or faxed to 201-670-7973.

## Applicable Course Fees

In courses where additional instructional cost factors are incurred, the student will be charged a course fee ranging from $\$ 60.00$ to $\$ 420.00$. Schedules and bills will indicate which courses have an additional cost factor.

The tuition and fees are subject to change.

|  | Tuition | Per-Credit Rate <br> General Fee | Technology Fee |
| :--- | :---: | :---: | :---: |
| Bergen County <br> Resident | $\$ 98.40$ | $\$ 17.00$ | $\$ 8.00$ |
| O ut-of-County <br> R esident | $\$ 203.00$ | $\$ 17.00$ | $\$ 8.00$ |
| O ut-of-State <br> Resident | $\$ 213.00$ | $\$ 17.00$ | $\$ 8.00$ |
| Students on <br> N on-Immigrant <br> Visas | $\$ 203.00$ | $\$ 17.00$ | $\$ 8.00$ |

Non-Credit Tuition. The maximum non-credit tuition charge for state fundable courses will be $\$ 9.50$ per contact hour. The maximum laboratory fees for these courses are $\$ 14.25$ per contact hour.

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.

## Returned Check Fee $\mathbf{\$ 3 0 . 0 0}$

A ny check 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.

## Stop Payment

Students who issue stop-payment authorization against checks paid to the C ollege for tuition, fees, and other services are held responsible for such payment. A returned 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, students are eligible to withdraw from classes according to the guidelines indicated under WITHDRAWAL FROM CLASSES (in this chapter) and the posted college deadlines for withdrawal from classes.

## Students with Outstanding Charges

Students who have outstanding financial obligations to the College or those who fail to return college materials on loan or assignment to them will have a hold placed on their record. Such students 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.

## Student Accident and Sickness Insurance

Students ( 12 credits or more) will be automatically billed for medical insurance coverage. Any student who changes status from full-time ( 12 credits or more) to part-time (less than 12 credits) by September 28 for the Fall semester and J anuary 31 for the Spring semester, will not be billed for medical insurance coverage, and any fee collected will be refunded to the student. The plan is specifically designed for students and is offered at a reasonable premium. If students already have health/hospital insurance and do not wish this coverage, they must request a waiver of the insurance fee. A waiver form will be available at the time of registration. Students must complete the form and provide their insurance carrier's name, address and policy number. Upon receipt of the form, the fee will be waived and/or the payment refunded.

The deadline for submitting waivers for the Fall Semester is September 28, and January 31, for those students enrolling for the Spring Semester. Students may wish to retain this coverage regardless of other insurance since it may help to cover part or all of your medical/hospitalization costs. Part-time students (less than 12 credits) are offered the option of purchasing a medical benefit plan through the College. Specific information is available in a brochure which may be obtained at the Bursar's Office, Room A-229, or the H ealth Services Office, Room H S-100.

## RESIDENCY REQUIREMENTS

According to regulations of the State of $N$ ew Jersey (N.J.A.C. 9A:5), tuition charges are determined by the student's permanent place of residency, or domicile. A residence 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 N ew Jersey for one day 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 Admissions and Registration 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, students 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. Tuition charges will not be adjusted for the current or previous semesters/sessions.

## How Do You Prove Residency?

U.S. citizens or permanent residents should submit to the Office of Admissions and Registration:

O ne of the following in the student's name:

- A copy of a 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, which can be obtained at the County Clerk's Office in Hackensack, O ne Bergen Plaza, Room 120; 201-336-7000 (follow menu instructions).


## AND

If an independent student: A copy of the most current and previous year's $N$ ew Jersey 1040 Income Tax form.

## 0 R

If a dependent student: A copy of the parents' or legal guardian's current and previous year's N ew 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.

O nline applicants who cannot bring required proof in person may fax a copy of required documents to the Admissions and Registration Office. The fax number is 201-670-7973. N ame, address, telephone number and student's college ID number should be included on all faxes. The College reserves the right to request to see original documents.

## Out-of-County

O ut-of-county residents who areenrolled in a program or course not offered by their home county community college may pay incounty rates if they present a completed out-of-county chargeback form with their tuition payment. The forms and instruc-
tions for a chargeback are available at the Admissions and Registration Office (Room A-128). Depending upon home county requirements, a new chargeback will be needed for each academic year, or in some cases, for each semester.

## WITHDRAWAL FROM CLASSES

Students may officially withdraw from courses either via WebA dvisor or in person (see below). Refunds are based on the date that the drop or withdrawal form was filed. See the R efunds section in this chapter for more information. Students are responsible for being aware of refund and last-day-to-withdraw deadlines, which are published in the Registration booklet.

- Failureto officially withdraw from a course a student is no longer attending will result in a grade of " $E$ " or " $F$ " that will be calculated into the student's grade point average as a failing grade.
- Students are required to initiate the official withdrawal process from the College or from an individual course-instructors cannot initiate the process for students.
- Once students file the request, students will be given a receipt, either a bill/schedule showing the drop or withdrawal, or a copy of the withdrawal form. Students should keep this for future records. Students withdrawing via WebAdvisor should confirm that the process was completed by checking and printing the page, M y Class Schedule.
- The liability for tuition and fees is based on the refund schedule and the date that the withdrawal request was submitted.

An "E" grade impacts negatively on a student's GPA; therefore, instructors should always encourage the student to officially withdraw if the student indicates he/she can no longer attend class. An "E" grade is given when a student is enrolled but neglected to officially withdraw prior to the deadline. The "E" grade is intended to designate an unearned failure and should not beissued to a student whose performance while attending the course would ordinarily have resulted in an "F" grade.

- A student whose name appears on the roster but has never attended a class is to be assigned an " $E$ " grade, as he/she is not eligible for any other grade.
- A student who has been attending class sporadically from thebeginning of the semester and who has discontinued attendance completely during the final weeks of class should be assigned an "E".


## Withdrawal Offices

| Student Status |  |  |
| :--- | :--- | :--- |
| AIM S students | Place | Room |
| EOF students | English Dept. | A-333 |
| International students on F-1 student visas | Counseling Center | A-118 |
| H ealth Professions \& N ursing students <br> withdrawing from one or more courses | Counseling Center | A-118 |
| Full-time degree-seeking students <br> withdrawing from all courses | Counseling Center | A-118 |
| OSS students | OSS Office | S-131 |
| All other students | Office of Admissions <br> and Registration | A-129 |
|  | WebAdvisor <br> http://go.bergen.edu |  |

## REFUNDS

Refunds are based on the date that the drop or withdrawal form was filed (see Withdrawal from Classes), and are figured according to the following schedule:

| Withdrawal Schedule | Fall/Spring | Summer |
| :--- | :--- | ---: |
| Withdrawal before scheduled <br> opening day of the semester or session* | $100 \%$ | $100 \%$ |
| Withdrawal before the start of <br> the second week of classes* | $100 \%$ | $50 \%$ |
| Withdrawal before the start of <br> the third week of classes* | $50 \%$ | $25 \%$ |
| Withdrawal before the start of <br> the fourth week of classes* | $25 \%$ | $0 \%$ |
| Withdrawal after the end of <br> the fourth week of classes* | $0 \%$ | $0 \%$ |

* The actual dates are published in the R egistration booklet each semester. "Weeks" are figured based on the starting date of the semester. For example, if the semester starts on a Wednesday, the first week of classes ends on the following Tuesday. Due to the compressed nature of Summer semesters please refer to the Registration booklet for specific dates.


## Method of Refund

Refund will be made by college check in the name of the student and mailed to the address of record unless directed in writing by the student to do otherw ise. Credit card refunds will be processed to the account originally charged, upon request by the student. At least four weeks after the semester has started or four weeks after completion of the withdrawal process should be allow ed before receipt of the refund check. Students on scholarship or other tuition assistance who withdraw in time for a refund may receive the refund based on the stipulation of the grantor. Refunds for special sessions conducted by the College are paid in accordance with the calendar covering that specific session and within the framework and guidelines spelled out here.

## Refund Guidelines

The following fees and deposits are not refundable:
Tuition Deposit
for H ealth Professions Admitted Students
R einstatement Fee
\$ 100.00
General Fee (per credit)
\$ 25.00
Technology Fee (per credit)
\$17.00
Special Registration Fee (per semester)
\$ 10.00

## Return of Federal Student Financial Aid Funds when a Student Withdraws from All Classes During a Semester

The new federal requirements for return of Student Financial Aid Awards prescribe a statutory schedule to determine the amount of Student Financial Aid Program funds a student has earned when the student ceases attendance based on the period of time the student was in attendance.

Up through the 60\% point in each payment period (semester) a pro rata schedule is used to determine how much Student Financial Aid Program funds the student has earned at the time of withdrawal. After the 60\% point in the payment period, a student has earned 100\% of the Student Financial Aid Program funds. If a student receiving federal financial aid withdraws from all classes before completing $60 \%$ of the semester, a calculation is performed to determine if a portion of the financial aid received must be returned.

The amount of Student Financial Aid Program assistance earned is the percentage of Student Financial Aid Program assistance that has been earned multiplied by the total amount of Student Financial Aid Program assistance that was disbursed (and that could have been disbursed) for the payment period as of the day the student withdrew.

The percentage earned is one of the following:

- If the day the student withdrew occurs after the student has completed $60 \%$ of the payment period, the percentage earned is $100 \%$.
- If the day the student withdrew occurs on or before the student completed $60 \%$ of the payment period for which the assistance was awarded, the percentage earned is equal to the percentage of the payment period for which assistance was awarded that was completed. That is, if a student completed $30 \%$ of the semester, the student earned $30 \%$ of the assistance he or she was originally scheduled to receive.

The percentage of the payment period completed is the total number of calendar days in the payment period for which the assistance is awarded divided into the number of calendar days completed in that period as of the day the student withdrew. If the student receives less Student Financial Aid Program assistance than the amount earned, the school must comply with the procedures for late disbursement specified by the U.S. Department of Education in regulations.

## Refunds for Military Service

Students who are called to active duty in the Reserve or National Guard or who are inducted into other branches of the military may apply for a full refund of tuition and fees or reenroll in thecourse upon the completion of military service. Students must be actively attending the course to within seven days of departure. Application for refund must be processed before the end of the semester in which the withdrawal occurs. In those cases where the instructor agrees to assign a grade because the student has completed most of the work for the course, there will be no entitlement to a refund of tuition and fees.

## Financial Aid Refund Policy

If the student receives more Student Financial Aid Program assistance than the amount earned, the school, or the student, or both, must return to the Student Financial Aid Program the unearned funds as required below. The school must return the lesser of:

- The amount of Student Financial Aid Program funds that the student does not earn; or
- The amount of institutional costs that the student incurred for the payment period multiplied by the percentage of funds that was not earned.

The student (or parent, if a Federal PLUS loan) must return or repay, as appropriate, the remaining unearned Student Financial Aid Program grant and loan funds.

## Method of Return of Funds by the Student

The student (or parent, if a Federal PLUS loan) must return the unearned funds for which they are responsible to loan programs in accordance with the terms of the loan, and to grant programs as an overpayment. Grant overpayments are subject to repayment arrangements satisfactory to the school, or overpayment collection procedures prescribed by the Secretary of the U.S. Department of Education.

## FINANCIAL AID

The College is committed to counseling and aiding current and prospective students with financial need through the Financial Aid Office which is located in R oom L-123. The office may be reached at 201-447-7148, or by e-mail at financial.aid@bergen.edu.

## Types of Financial Aid

Grants and Scholarships are gift aid that do not have to be repaid and are the most desirable form of aid. Information regarding scholarships for Bergen Community College students may be obtained through the Office of the Vice President for Student Services located in Room A-128B, or by calling 201-447-7491.

Financial Aid programs available for eligible students include:

- Federal Pell Grant
- A cademic Competitiveness Grant
- Federal Supplemental Educational Opportunity Grant
- Federal Work/Study
- Federal Family Education Loan Program (Stafford \& Plus)
- N ew Jersey Class Loan
- N ew Jersey Distinguished Scholars
- N ew Jersey Educational Opportunity Fund
- N ew Jersey Garden State Scholars
- N ew Jersey Pilot (Part-Time Tuition Aid Grant)
- NJ STARS (Student Tuition A ssistance Reward Scholarship)
- N ew Jersey Tuition Aid Grant
- N ew Jersey Urban Scholars
- Private and Institutional Scholarships
- Veterans' Administration Educational Benefits

Work/Study is money paid to a student for work performed.
Loans are money given to a student that must be repaid.

## NJ STARS

NJ STARS (The N ew Jersey Student Tuition Assistance Reward Scholarship) is a state-sponsored program that provides New Jersey's brightest students with free tuition at their local community college regardless of their financial need. The program covers up to five semesters of tuition and approved fees at a local N ew Jersey community college. Students must first apply for all need-based federal (FAFSA) and merit-based state financial aid grants. NJ STARS will cover up to 15 credits per semester of approved tuition and fees less other need and merit-based aid.

To qualify for NJ STARS Scholarships, students must be U.S. citizens or have permanent resident status in the State of N ew Jersey. Students and parents must be residents of the State of New Jersey as per the guidelines established by the State. Students must also have attended their full senior year at a N ew Jersey high school and have graduated in the top 20 percent of their class.

O ther requirements are:

- NJ STARS students must be enrolled in a minimum of 12 college-level credits each semester.
- NJ STARS students have up to two years after graduating high school to enroll at a New Jersey community college.
- NJ STARS students must be enrolled in an associate degree program at a New Jersey community college.
- NJ STARS students must maintain continuous full-time enrollment at a N ew Jersey community college.
- NJ STARS students must maintain a 3.0 grade point average by the beginning of their second year to be eligible for scholarship renewal for
 the second year.

M ore information about NJ STARS is available by calling 1-800-334-N JCC, by e-mailing info@njccc.org, or on the Bergen Web site at http://www.bergen.edu/N JSTARS.

## Qualifications for Financial Aid

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

1. Be accepted as a degree-seeking student by the Office of Admissions and Registration.
2. Complete and submit the Free Application for Federal Student Aid (FA FSA). 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?" Students can complete a FAFSA online and submit their data over the Internet. FAFSA on the Web can be found at http://www.fafsa.ed.gov. Because electronic signatures hold the same legal status as written signatures, students and parents applying for aid may sign their FAFSA on the Web applications by using their PIN N umbers, allowing the process to be completed totally online. If students or their parents do not have a PIN N umber, they can be requested at http://www.pin.ed.gov before you complete the FAFSA. PIN numbers can be requested as early as the student's senior year in high school.
3. M eet the standards of Academic Progress as set by the College to conform with federal and state regulations. A copy of the standards is available at the Financial Aid Office or online at http://www.bergen.edu/pages/2363.asp. These standards are in addition to the Satisfactory or Conditional Academic Standing Regulations. (See the chapter on Academic Regulations in this catalog.)
4. Register for classes and meet the required enrollment status for each financial aid program. M ost state and federal financial aid programs require a minimum of 6 college credits for eligibility. Enrollment status is determined by the students' official enrollment after the change of registration period is over during the first week of classes for each semester.* Please refer to the following table for enrollment status:
```
Full Time 12 credits or more
Three Q uarter Time
H alf Time
Less than H alf Time
1-5 credits
```

5. Eligible non-citizens must submit a copy of their Alien Registration card.
6. Provide any other documents as requested.

## Application Deadlines for Financial Aid

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**
M ay 1
Fall Applicants, N ew Students July 1
Spring Only Applicants
N ovember 15

* L oan recipients must be enrolled in at least 6 credits before loan funds will be disbursed.
** For Continuing Students applying for State of N ew Jersey Aid, the State requires the FAFSA form to be submitted prior to June 1.

Once a student's financial aid file is complete, it will be review ed by a financial aid counselor. An aw ard notice will be sent to the student indicating what aid programs have been awarded. If a student wishes to use financial aid funds for 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.

## Satisfactory Academic Progress Standards

The College is required to establish satisfactory academic progress standards for its federal and state financial aid recipients in accordance with the U.S. Department of Education regulations. These standards ensure that only those recipients demonstrating satisfactory progress toward the completion of their educational program continue to receive financial aid.

W hether a student is considered to be making satisfactory academic progress depends on successful completion of courses (credit hours), cumulative grade point average (GPA), and maximum time limits to complete his or her course of study. Students must meet all of the requirements shown below.

## - C ompletion Requirement for students in a Degree program:

Total number of credits attempted Completion requirement
1 - 28 credits 60\%
29 or more credits $70 \%$

- Completion Requirements for students in a Certificate program:

Total number of credits attempted Completion requirement
$1-14$ credits 60\%

15 or more credits $70 \%$
Attempted hours are defined as the hours for which the student is enrolled and charged on the census date (the 10th day of enrollment) of the semester. Earned or completed hours are defined as the hours for which the student has earned a grade of A, B, C or D. Withdrawals, incompletes, audits and failures are not considered earned hours. Remedial courses and repeated courses are included in the calculation of attempted and earned hours. N ote that a student may repeat a course only twice.

- Grade Point Average Requirements - Financial aid recipients must maintain the following cumulative GPAs in order to meet satisfactory academic progress requirements.

C umulative G PA credits
G PA required
12-23 credits
1.70
$24-35$ credits 1.80
$36-47$ credits $\quad 1.90$
48 or more credits 2.00

- M aximum Time Limit Requirements - In addition to meeting the above requirements, students must complete their coursework within a reasonable period of time. A student's eligibility for financial aid will be terminated in accordance with the following:


## For all A.A., A.S., A.A.S. Degrees:

The maximum number of credits that may be attempted equals 85 (plus $1.33 x$ the number of required remedial credits).

## For all Certificate programs:

The maximum number of credits that may be attempted equals 43 (plus $1.33 \times$ the number of required remedial credits). H ours attempted are the sum of all Bergen Community C ollege hours for which tuition was charged (10th day of enrollment) whether or not financial aid was received plus all transfer hours accepted for credit. If a student changes his or her course of study, the hours attempted under all courses are included in the calculation of attempted and earned hours.

- Evaluation of Academic Progress - A financial aid recipient's academic progress is evaluated after the end of the academic year. At that time, a student will either be in good standing, be placed on financial aid probation, or suspended from the federal student aid programs. To remain in good standing, the student must meet all three progress requirements (completion rate, GPA, and maximum time frame). Students who are placed on probation or suspension will be notified by the Financial Aid Office.
- Probation status - If students fail to meet satisfactory academic progress requirements, they will be placed on financial aid probation for the subsequent semester. To avoid having their aid suspended, students must resolve any and all deficiencies by the end of that semester. Probation status will not prevent the students from receiving financial aid. The probationary semester is intended to inform students of potential academic problems and provide time for corrective action.
- Suspension status - During periods of suspension, students are not eligible to receive federal student aid. To regain eligibility, all deficiencies must be resolved.
- Appeals and Reinstatement - Students may appeal their suspension status by submitting an appeal form to the Financial Aid Appeals Committee. An appeal form may be picked up and submitted to the Financial Aid Office at the end of the semester. Extenuating circumstances that may be considered include medical problems and illness or death in the family as well as certain other types of catastrophic events. The Committee will review the appeal and contact the student within 15 days. If the student finds the Committee's decision unsatisfactory, the student may appeal to the Vice President of Administrative Services for further review. The decision of the Vice President of Administrative Services will be final. Please note that failure to meet Financial Aid Satisfactory Academic Progress standards does not preclude a student from enrolling in subsequent semesters provided the student meets the academic requirements of the College.


## 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 afford college. The 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 $\$ 1,650$ 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 half-time at an eligible educational institution and not have completed his or her first two years of study. The credit is $100 \%$ of the first $\$ 1,100$ of payments for qualified tuition and fees and $50 \%$ of the second $\$ 1,100$. The goal of Hope is to make it possible for all A mericans to afford the cost of the first two years of a college education. In most states, the H ope 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.

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 $\$ 2,000$. A taxpayer 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 H ope credit is claimed. There is no limit, however, on the number of years a taxpayer may claim the Lifetime Learning Tax Credit.

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 H elp Line at 1-800-829-1040, read IRS publication 970 or visit the Treasury Department's Web site at http:// www.irs.gov.

The 0 ffice of Admissions and Registration
of Bergen Community C ollege maintains the academic records of all students. Students are responsible for personal academic progress. Academic advisors, tutors, and counselors are available to help students achieve academic success. Attaining an associate degree is the first step toward realizing academic goals.


## Academic Records

The Office of Admissions and Registration maintains an academic record for 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 W indow, Room A-129, of Admissions and Registration by filling out a Verification Authorization form, or by mailing or faxing a request to the Admissions and Registration Office 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. D ocuments requiring the C ollege Seal cannot be returned to the student; they must be mailed directly to the requesting agency or organization.

## GRADING

Students are responsible for their individual academic progress and standing, for preparing and participating in those classes in which they are enrolled, and for attaining the best possible academic 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 individual academic performance. Formal mid-semester grades are not issued.

## Final Grades

Final grades are assigned by instructors at the end of each semester or session. Final grades may be viewed through WebA dvisor at http://go.bergen.edu. Students may also request an academic report reflecting their final grades from the $O$ ffice of Admissions and Registration.

## 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 "IN C" 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 "IN C" 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 Admissions and Registration and the degree aw arded if appropriate.

## Repeating of Courses

1. A student shall have the option to repeat once any course in which a grade of D, C, C + , B or B+was earned, and only the higher earned grade shall be computed in the grade point average (GPA). The lower grade will be marked with an " R " and will be excluded from the GPA calculation.
2. A student shall have the option to repeat an "F" or "E" grade earned once. If the student fails to complete the course after two attempts, the student may appeal, in writing, to the appropriate department head, 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 GPA. The "F" or "E" grade will be marked with an " $R$ " and will be excluded from the GPA calculation. N ote: 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 $H$ ealth Professions 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 "IN C" (incomplete) was received.

## Course Grade Appeal Policy

1. A student raising a complaint or concern about a course grade may 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 may 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 may 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. A grade appeal is 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 A cademic 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 a grade or credit for them may do so as auditors.

- An application for audit status must be obtained from the Office of Admissions and Registration.
- 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 tow ards the student's load for financial aid or sports eligibility purposes.


GRADES
THE FOLLOWING GRADES MAY BE ASSIGNED BY INSTRUCTORS:

| Grade | Point Value | Description | Included in <br> Attempted Credits | Included in <br> Earned Credits |
| :--- | :--- | :--- | :--- | :--- | | Included in |
| :---: |
| Cumulative Average |

N ote: An " @" preceding any of these grades indicate that A cademic Forgiveness has been granted, in which case the grade will be excluded from the GPA calculation.


Grades of $A, I N C$, TR, and CBE cannot be repeated. Grades of $B, C, D, E, A U$, and $F$ may be repeated only once. The higher grade is retained and the low er grade is marked " $R$ " and is not figured in the GPA.

## HOW TO CALCULATE GRADE POINT AVERAGE (GPA):

Grades of $A, B, C, D, E$, and $F$ are assigned a point value $(A=4$ points, $B+=3.5$ points, $B=3$ points, $C+=2.5$ points, $C=2$ points, $D=1$ point, $\mathrm{E}=0$ points, $\mathrm{F}=0$ points). GPA is calculated by multiplying the point value of the grade received in each course by the number of credits offered for the course. The resulting number is called "quality points." Next, add up the total quality points and divide by the number of graded credits. Include only the grades of A, B, C, D, E, and F; other grades do not affect the GPA.

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

## Grade



Credits
for Course

Total
Quality Points

## Semester I

| U.S. History | C | 2 | $\times$ | 3 | $=$ | 6 |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Foundations of Phys. Ed. | B | 3 | $\times$ | 2 | $=$ | 6 |  |
| Speech Communication | A | 4 | $\times$ | 3 | $=$ | 12 |  |
| Statistics | C | 2 | $\times$ | 3 | $=$ | 6 |  |
| English Composition I | D | 1 | $\times$ | 3 |  | $=$ | 3 |

This student earned a semester GPA of 2.36 for Semester I. This was arrived at by dividing the total quality points (33) by the total GPA credits (14). The student's semester GPA was 2.36.

## Semester II

English Composition
U.S. History II

General Biology I
M usic A ppreciation

| F | 0 | 5 |
| :--- | :--- | :--- |
| B | 3 | 5 |
| A | 4 | 5 |
| C | 2 | 5 |


| 3 |  |  | 0 |
| :---: | :---: | :---: | :---: |
| 3 | $=$ | 9 |  |
| 4 | $=$ | 16 |  |
| 3 |  | $=$ | 6 |
|  |  |  |  |
| 13 | Total GPA Credits | 31 | Total Quality Points |

The student earned a semester GPA of 2.38 for Semester II (31 divided by 13).
A "Cumulative GPA" for this student is arrived at by adding the "Semester I Total Q uality Points" (33) to the "Semester II Total Q uality Points" (31). The resulting figure is called the "Cumulative Q uality Points." In our example, the Cumulative Q uality Points add up to " 64 ."

Add the Semester I Total GPA Credits (14) to the Semester II Total GPA Credits (13). The resulting figure is called "Cumulative GPA Credits."
Divide the Cumulative Quality Points by the Cumulative GPA Credits. The resulting figure is called the "Cumulative GPA" as it reflects all of the grades earned at Bergen. Therefore, for the purpose of our example, this student has a Cumulative GPA of 2.37: 64 Cumulative Quality Points divided by 27 Cumulative Credits $=2.37$ Cumulative GPA.

Students w ishing further assistance in understanding their grade point average should contact the A cademic Advising Center in R oom A-101.


## ACADEMIC HONORS

## Dean's List

The Dean's List is official recognition by the faculty of outstanding academic accomplishment. Any degree-seeking student who has maintained a cumulative scholastic average of 3.5 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 "IN C" 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 degree-seeking student who has attained a scholastic average of 3.5 or better (minimum 12 credits) qualifies for this honor. The H onors List is compiled each semester several weeks after grades are processed. (Students with unresolved "IN C" grades at the time of compilation are ineligible.)

## Chi Alpha Epsilon

M embership in Chi Alpha Epsilon is offered through local campus chapters to eligible students and alumni. Students who hold a 3.0 cumulative GPA for two consecutive full-time semesters and who were admitted to the college through the Educational Opportunity Fund Program are eligible for membership. Alumni who graduate with a 3.0 or better cumulative average prior to the formation of a campus chapter may, once a chapter is founded, be organized into graduate chapters.

The first 14 members of Chi Alpha Epsilon were inducted at Bergen Community College in 2003. This honor society recognizes the academic achievements of students admitted to the College through non-traditional criteria. Its purposes are to promote continued high academic standards, to foster increased communication among its members, and to honor academic excellence achieved by students admitted to college via developmental programs.

## Phi Theta Kappa

Phi Theta K appa (PTK ), the International H onor Society of the Two-Year College recognized by the A merican 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: A.A. Degree, A.S. Degree, A.A.S. Degree.

## B. M embership Requirements

1. N ew M embers. Q ualified students are selected from those who are registered for the fall or spring semesters. M embership is not open during the summer session.
Students must be invited to join by the C ollege President. Students will receive a letter in the mail if they qualify.
2. C ontinued M embership. Q ualified students will retain membership as long as they are actively registered in the fall and spring semester between induction and graduation. PTK members are not required to attend summer sessions.

## C. Grade Point Average

1. N ew M embers. Students must achieve the following cumulative GPA based on degree credits attempted or earned:

| C redits <br> C ategory | Qualifying <br> GPA* | Credits <br> Attempted** | Credits <br> Earned** |
| :---: | :---: | :---: | :---: |
| 1 | 4.0 | $12-15$ | $12-15$ |
| 2 | $3.9-4.0$ | $16-31$ | $16-31$ |
| 3 | $3.8-4.0$ | $32-47$ | $32-47$ |
| 4 | $3.65-4.0$ | $48+$ | $48+$ |

* The qualifying GPA includes grades in all degree as well as nondegree courses.
** Attempted and/or earned credits in non-degree credits courses are not used to determine minimum credits in these categories.

2. 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.
3. Continued Membership. Students must maintain a cumulative GPA of at least 3.5. Students who fall below a 3.5 cumulative grade point average will lose their membership in the Alpha Epsilon Phi Chapter.
4. All Grades are Considered. Grades in all degree and non-degree 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.
5. Transfer Students. Students who have transferred to Bergen Community College may apply for consideration for membership using the "D egree Credit Earned" category. Each student must be assessed on a case-bycase basis and must make an appointment with the Phi Theta Kappa advisor or co-advisor.
6. Leave of A bsence. Students who take a leave of absence must notify the Phi Theta K appa advisor in writing on their return to reactivate member status.

## D. The Society

Alpha Epsilon Phi is an active society on campus. To maintain enhanced membership within the Chapter, attendance at meetings and/or service is necessary. Participation equates to approximately eight hours per year, and the type of service changes from year to year depending on the chapter's executive committee. Independent community service will not be considered as service to the Chapter. During the past ten years, the annual time devoted to Phi Theta K appa by a member is approximately 15 hours.

## Alpha Mu Gamma - The National Collegiate Foreign Language Honor Society

Alpha Mu Gamma is a nationally recognized, collegiate, world language honor society with more than 300 chapters in both state and private universities and colleges across the United States and Puerto Rico. The purpose is to honor students for outstanding achievement during their first year of world language study in college. H owever, students may be admitted into Alpha M u Gamma at any stage in their college careers.

Nu Pi is Bergen Community College's chapter of Alpha Mu Gamma. It was chartered in the Spring Semester of 2006.

Students are eligible to join Nu Pi as full members or as associate members depending on the requirements they meet. To qualify for full membership, students need to have a minimum cumulative GPA of 3.0 in college level work and have earned a Final Grade of "A" in two college level courses of the same world language. $M$ embership dues are also required. For additional information, please contact the A cademic Coordinator, World Languages and Cultures.

## DEGREE REQUIREMENTS

Bergen Community College offers degree programs leading to Associate in Arts (A.A.), A ssociate in Science (A.S.), and Associate in Applied Science (A.A.S.) 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.

Students may be required to take courses in English, M athematics, and/or Elementary A Igebra which are not part of their curricula to remove deficiencies or to upgrade skills as indicated by the results of the Basic Skills Placement Test. Students in all A.A. and A.S. degree programs and in certain A.A.S. and Certificate programs are required to successfully complete a course in basic algebra if indicated by the placement test. Students in A.A.S. and Certificate programs should refer to the catalog curriculum guides for their specific programs to determine whether they must successfully complete a course in basic algebra.

To be eligible for an Associate D egree (A.A., A.S., A.A.S.) or a certificate, a student must be degree-seeking and in good standing, and have completed the number of degree credits specified for the particular curriculum with a 2.0 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 degree-seeking at the College during the regular semester or summer session in which the degree will be conferred.

## Catalog Under Which a Student Graduates

Students maintaining continuous enrollment at Bergen Community College may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single catalog in effect during subsequent terms of continuous enrollment.

## Application for Degree and Graduation

It is the responsibility of the student to apply for a degree or certificate by completing an Application for Degree, which can be obtained from the Registration section of the College's Web site at http://www.bergen.edu/registration or the O ffice of Admissions and Registration window, Room A-129.
Degrees are conferred in accordance with the calendar shown:

## If completing requirements by: <br> D ecember (Fall Semester) <br> M ay (Spring Semester) <br> August (Summer I/Summer II)

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 Admissions and Registration 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 three times during the academic year, there is only one Commencement ceremony, which takes place in M ay (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 M ay Commencement ceremony must notify the Director of Student Life and Judicial Affairs by M arch 3 . Lists for graduation are compiled as of this date.

## Allocation of Credit Hours to Courses

Bergen Community College operates on a semester credit hour basis. Generally, one credit hour is assigned for each 800 minutes of lecture-discussion or for each 1,600 to 2,400 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.

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 summer sessions I and II. Credits for eleven-week summer courses count into the 8-credit limit for each summer session.

## Change of Curriculum

A student desiring a curriculum change should discuss the possibilities with the academic 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

Curriculum changes requested after the completion of 32 credits may require the approval of the Office of the Vice President of Student Services.

## ACADEMIC REGULATIONS

## Academic Integrity/Discipline

Bergen Community College is committed to academic integrity - the honest, fair, and continuing pursuit of knowledge, free from fraud or deception.

Students are responsible for their own work. Faculty and academic support services staff will take appropriate measures to discourage academic dishonesty.

The C ollege recognizes the following general categories of violations of academic integrity. Academic integrity is violated whenever a student does one or more of the following:
A. Uses unauthorized assistance in any academic work.

- copies from another student's exam
- uses notes, books, electronic devices or other aids of any kind during an exam when doing so is prohibited
- steals an exam or possesses a stolen copy of any exam
B. Gives unauthorized assistance to another student
- completes a graded academic activity or takes an exam for someone else
- gives answers to or shares answers with another student before or during an exam or other graded academic activity
- shares answers during an exam by using a system of signals
C. Fabricates data in support of an academic assignment
- cites sources that do not exist
- cites sources that were not used
- submits any academic assignment which contains falsified or fabricated data or results
D. Inappropriately or unethically uses technological means to gain academic advantage
- inappropriately or unethically acquires material via the Internet or by any other means
- uses any devices (electronic or hidden) for communication or unauthorized retrieval of information during an exam


## Plagiarism

Plagiarism is a form of academic dishonesty and may be a vioIation of U.S. Copyright laws. Plagiarism is defined as the act of taking someone else's words, opinions, or ideas and claiming them as one's own.

Examples of plagiarism include instances in which a student:

- knowingly represents the work of others as his/her own
- represents previously completed academic work as current
- submits a paper or other academic work for credit which includes words, ideas, data or creative work of others without acknowledging the source
- uses another author's exact words without enclosing them in quotation marks and citing them appropriately
- paraphrases or summarizes another author's words without citing the source appropriately

N ote: An instructor may establish other guidelines regarding academic integrity consistent with the College policy.

## Sanctions Against a Student for a Classroom Violation

1. The faculty member must report all incidents to the C hair of the Department.
2. The faculty member in consultation with the Chair will determine the course of action to be followed. This may include:

- assigning a failing grade on the assignment
- assigning a lower final course grade
- failing the student in the course
- other penalties appropriate to the violation

3. The faculty member, after making a decision, must notify the Director of Student Life and Judicial Affairs and Vice President of Student Services of the violation and the penalty imposed.
4. The student has the right to appeal the decision of the faculty member by writing to the appropriate D epartment H ead and then to the Academic Vice President.

N ote: An instructor may establish other guidelines regarding academic integrity consistent with the College policy.

## 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 G PA <br> G PA C redits  |  |
| :--- | :--- |
| $12-23$ credits | 1.7 |
| $24-35$ credits | 1.8 |
| $36-47$ credits | 1.9 |
| $48+$ | 2.0 |

## Academic Probation

Any degree-seeking or non-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 on academic probation and will be sent a letter to that effect by the $O$ ffice of Admissions and Registration.

Academic probation 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 academic probation will not be permitted to register until they meet with a counselor in the Counseling Center. Students registered with the EOF Office or Specialized Service $O$ ffice should meet with their appropriate counselor.

## Removal of Academic Probation 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 and Registration.

## Academic Suspension

A student with conditional academic standing who fails to achieve the required grade point average at the end of the students' conditional academic standing semester will be placed on academic suspension. Suspended students will be reclassified with 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. N otification of academic suspension will be sent to the student by the Office of Admissions and Registration 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 Academic 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 meet with a counselor before registration.

A request for reinstatement can only be initiated by a written application to the Committee on A cademic Standing in accordance with the posted college deadline. The Committee on A cademic Standing shall review the reinstatement application and render a decision or delegate the authority for reinstatement to C ounseling faculty. There is a $\mathbf{\$ 2 5}$ 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. Students registered with the EOF or Specialized Services Office should meet with their appropriate counselor.

## Academic Forgiveness Policy

A cademic Forgiveness is designed to allow students who have gotten off to a bad start a chance to get poor grades removed from their GPA. The A cademic Forgiveness Policy at Bergen Community College contains two options:

Option I-Academic Forgiveness based upon past academic performance
O ption II - A cademic Forgiveness based upon change of curriculum

A student may request Academic Forgiveness once under Option I and once under Option II.

## 0 ption I: Past Performance

A fter three consecutive years of non-attendance, a student may request Academic Forgiveness based upon past academic performance. The request will be reviewed after the student has completed at least one semester. The student must complete 9 credits and earn a GPA of 2.5 for the request to be approved. When the student's request is approved, grades of " $F$," " $E$," " $R$," and optionally " $D$ " for the courses from the prior attendance period will be removed from the student's GPA. H owever, the courses will remain on the student's official transcript designated with a special code for Academic Forgiveness.

## 0 ption II: C hange of $\mathbf{C}$ urriculum

A student may request Academic Forgiveness based upon a change of curriculum at any time after matriculation and after credits have been attempted. If a student's request is approved, grades of "F," "E," "R," and optionally "D" in courses that were required by the student's former program but are not required by the new program will be removed from the student's GPA. H owever, the courses will remain on the student's official transcript designated with a special code for A cademic Forgiveness.

## Committee on Academic Standing

The Committee on Academic Standing is comprised of faculty members from each of thedivisions 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. A ppeals 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. The committee also takes responsibility for reviewing and recommending policies and procedures pertaining to the overall academic regulations of the College.

## 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 or check Bergen's Web site at http://www.bergen.edu 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 9:00 a.m. and 5:00 p.m. or to the evening office if before 9:00 a.m. or after 5:00 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. A meeting 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 A cademic Vice President in writing.

ACCEPTABLE USE OF INFORMATION

## TECHNOLOGY RESOURCES

Bergen Community College provides a rich information technology environment to support its educational activities and administrative functions. These resources, including computing systems and software, as well as internal and external data, voice, and video networks, are shared resources. To preserve them for the common good, the College expects all users, including students, faculty, staff, administrators, other employees, and members of the general public using the College's information technology resources to comply in all respects to institutional and external standards for their appropriate use. Although incidental personal use is permitted, these resources should be used primarily for College educational and administrative purposes, and such incidental personal use must conform to these same standards of appropriate use. By using College information technology resources, users agree to abide by all College acceptable use and related policies and procedures, as well as applicable federal, state, and local laws. The College reserves the right to bar access to its network or other information technology resources to those who violate its acceptable use and related policies and procedures. Further, violations may result in disciplinary action, including suspension, dismissal, and legal proceedings.

The College's AcceptableUse policy, administrative guidelines, and procedures may be found at http://www.bergen.edu/acceptableuse.

## Administrative Guidelines, Regulations, and Procedures

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, and to ensure compliance with all acceptable use and related policies and procedures. To this end, the College reserves the right to inspect any and all computer systems or data that reside on its telecommunications network for violations of any acceptable use and related policies and procedures.

## Acceptable and Unacceptable Use

Because of the richness of the Internet and the College's information technology resources, it is not possible to catalog exhaustively all acceptable and unacceptable uses. The lists below are meant to be illustrative. Employees and students should consult with their supervisors or classroom instructors, respectively, about the appropriateness of other uses. In free time areas, users should address questions to lab supervisors or other responsible parties.

In deciding what is and is not an acceptable use, there are two overriding principles: (1) the College's information technology and telecommunication resources exist to support the College's mission, and (2) the College is committed to ensuring a positive learning environment for all members of its community. Thus, all users are obliged to demonstrate civility in any and all exchanges and postings, including the content of Web pages, both official and unofficial. The College reserves the right to remove from its telecommunications networks any content judged to be racist, pornographic, or designed to denigrate members of the College community.

## Acceptable Use

1. Gathering and providing research material and data
2. A nalyzing research data
3. Preparing course materials
4. Completing class and homework assignments
5. Enhancing coursework
6. Enhancing educational approaches and teaching methods
7. Obtaining and disseminating college related knowledge
8. Developing and administering targeted demographic surveys
9. Using WebAdvisor to register online for courses or to access information about one's own academic performance
10. Using Datatel's Colleague or other institutional software within the scope of one's normal duties

## Unacceptable Use

1. Using the network for gambling, any other illegal activity, or any activity prohibited by the College's acceptable use and related policies and procedures, 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 hacking in any form
4. Gaining unauthorized access to resource entities, including 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 protocols (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. Creating and using individual Web pages not primarily focused on the mission of the College
11. Using WebAdvisor to access information about someone other than oneself
12. Accessing data or making use of data in Datatel's C olleague or other administrative systems software not relevant to the scope of one's job responsibilities

## Security Breaches

Attempts to alter system software, to bypass security protocols, to introduce viruses, worms, or other malicious or destructive programs, or otherwise "to hack" are expressly forbidden. A ny member of the College community, including a student, who intentionally breaches security, will be subject to disciplinary action, including suspension and dismissal.

## E-MAIL

E-mail is defined as all technologies used to transfer messages, including e-mail, instant messaging and peer to peer file exchange. E-mail is a tool for business purposes. Users have a responsibility to use this resource in an efficient, effective, ethical and lawful manner. In general, e-mail communications should follow the same standards expected in written business communications and public meetings.

## Accounts

It is the intention of the College to have on file e-mail addresses for all full-time faculty, administrators, adjuncts, and students. E-mail accounts are also provided for staff whose job responsibilities include regular computer access. Generally, e-mail accounts are closed when employment ends. The College may choose to extend e-mail privileges to adjuncts during periods of stop-out. Upon request, the College will keep active e-mail accounts for Professors Emeriti and retired full-time faculty.

## Students

All students enrolled in credit courses are required to have a valid e-mail address on file in Colleague. Students are required to enter a preferred e-mail address in Colleague using WebAdvisor. This e-mail address is required to allow the student to administer their WebA dvisor password.

## Broadcast E-mail

Authority to send e-mail to all students using the Colleague system rests with the Executive Vice President and the Vice President of Student Services. Such e-mail is strictly limited to the official conduct of College business, and is not to be used for promotion or marketing purposes. All C olleague broadcast e-mail must include the following footer: "You have received this e-mail because you are or have been a student at Bergen Community College. If you do not wish to be contacted by email, please reply to noemail@bergen.edu."

Student Clubs and other groups wishing to use e-mail to promote events or other activities should maintain separate distribution lists, targeting only those who have indicated interest in receiving such communication.

## Strictly Prohibited

The following use of e-mail is strictly prohibited. Employees receiving such material should immediately report it to their immediate supervisor. Students with Bergen e-mail accounts should contact the Coordinator of Judicial Affairs.

- The creation and exchange of messages that are offensive, harassing, obscene or threatening.
- The exchange of privileged, confidential or sensitive information to inappropriate persons.
- The creation and exchange of advertisements, solicitations, chain letters, or other spam.
- Use of e-mail for commercial purposes.
- The creation, storage or exchange of information in violation of copyright laws.
- R eading or sending messages from another person's account, except under proper delegate arrangements.
- Copying or forwarding messages belonging to another user which have been altered in such a way as to change the intent of the author.


## Guidelines

Users should follow these guidelines and conventions:

- Ensure that messages are addressed to the appropriate recipient(s).
- Do not subscribe to list servers or other distribution lists that are not college related. Such lists tend to overload and affect the performance of the e-mail system.
- Users must not compromise the privacy of their passwords by giving them to others or exposing them to public view. Passwords should be changed on a regular basis.
- R etain messages only if relevant to the work or an anticipated litigation. The College's e-mail system is set to retain messages for no more than six months. M essages having a legitimate business purpose greater than six months should be archived to a desktop folder or printed and filed.
- Address messages to recipients who "need to know." $M$ essages sent unnecessarily to a long list of recipients low ers system performance, and may annoy recipients.
- Avoid opening messages or attachments received from unknown senders or responding to instant messages or other peer to peer technologies from strangers. M essages and attachments can carry viruses, and IM and peer to peer technologies are often used by intruders with malicious intent.
- Construct messages professionally (spelling and grammar) and efficiently (subject field, attachments).


## Account Log-ons and Passwords

A ccount log-ons and passwords, including e-mail, are issued to individuals for their sole use and are non-transferable. O wners are responsible for all usage of their assigned accounts, logons, and passwords.

## WebAdvisor

WebAdvisor is a Web interface that allows students to access information contained in Datatel's Colleague, the administrative database used by Bergen Community College. Students may use WebAdvisor to register for classes, to pay tuition and fees, to view their class schedules, to check grades, to check on progress toward degree requirements, etc. The C ollege expects to add additional features to WebAdvisor in the future.

WebA dvisor accounts are available for all students enrolled in credit programs. (At the moment, however, students with outstanding English Basic Skills or ALP placements may not use WebA dvisor to register for classes. Students may, however, use WebAdvisor to view their class schedules and other functions). N ew students are strongly encouraged to attend an in-person registration or advisement session before using a WebAdvisor account. Eligible students without WebAdvisor user names and passwords may access their WebAdvisor account by going to http://go.bergen.edu and selecting "I'm new to WebAdvisor." Then, follow the on-screen directions. Check the WebAdvisor FAQ for answers to common questions, such as how to reset your password. Students must have a valid e-mail address on file with the college to use WebAdvisor.

## Violations of Acceptable Use and Related Policies and Procedures

Users are expected to notify the Office of Information Technology, classroom instructor, free time lab supervisor, or other responsible party, as appropriate, of intentional or unintentional breaches in access and data security of which they become aware. In addition, employees aware of serious violations of acceptable use or related policies and procedures (including malicious tampering, virus infection, or "hacking") are required to report such activity to their immediate supervisors. In the case of complaints about materials believed to be offensive or otherwise inappropriate, users are encouraged to express their concerns
directly to those believed to be misusing the systems and/or to lab supervisors. If the situation persists, users should bring the matter to the attention of Public Safety or other responsible parties. Individuals who violate acceptable use and related policies and procedures will be subject to appropriate sanctions, including suspension, dismissal, and legal proceedings.

According to the US Copyright Act, illegal reproduction of software or other material is an offense which will subject the violating individual to civil and monetary damages. The use of e-mail or any college system for harassment or criminal activity may result in criminal penalties, including fines and imprisonment.

## BERGEN WEB SITE GUIDELINES

Bergen 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 Bergen servers. All Web page developers are expected to act responsibly and to adhere to both the Bergen Acceptable Technology Use Guidelines and to the procedures established by the College for Web pages at http://www.bergen.edu/acceptableuse. 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 use 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 Bergen Web site, and all pages contained within it, is accessible to students with disabilities. 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.


## Bergen 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. Bergen Web Page

The Bergen Web page (http://www.bergen.edu) 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 Web page and other official pages. Any information to be included on the official College Web site is to be approved by and routed through this office.

## 2. Division and Department Web pages

Each division, department, and curriculum is expected to have its own Web page. These Web pages are to have a designated Web site content manager who is identified on the Web site by name, office, and e-mail 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 Bergen logo, fonts, and overall layout; verify and update all links regularly; and be approved initially by the Office of Public Relations before being uploaded to the college servers. Division, Department, and Curriculum Web pages will be limited by the resources available. Subsequent alterations and additions to the Division, Department, and Curriculum Web pages are subject to periodic review by the Office of Public Relations.

## 'Unofficial' Web Pages

## 1. Faculty and C ourse Web Pages

Full-time and adjunct faculty members are encouraged to have their own Web pages. Faculty may register their course pages and students can search for faculty course pages in the Faculty and Course Web site Directory located at http://w ww.bergen.edu/facultyw ebdirectory.

W hen developing Web pages, faculty members 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 member, giving name, position, office location, office telephone number, and e-mail 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 Web page, the faculty member is responsible for the appropriateness of the information on the personal Web 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 Web pages is to be timely and relevant. Pages should be updated regularly and links checked for accuracy.

Faculty are 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 Web site should consult the Center for Instructional Technology.

## 2. Student O rganization H ome Pages

Official student organizations, that is, those recognized by the Office of Student Activities, may have Web pages on a Bergen server. Student organizations that wish to have a page loaded on the servers are to have approval from the Director of Student Life; 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; abide by the College's Acceptable Use Policy and Administrative Guidelines, 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; and verify regularly that all links from their page are active. Club Web pages will be limited by available resources.

## 3. Individual Student H ome Pages

Individual students may only have Web pages on the Bergen 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 Bergen servers. Student Web pages will be limited by available resources.

## Wireless Access

Wireless access is available in many areas of the campus including the library, Ender H all, the Student C enter, C afeteria, West H all, and the TEC Building, as well as outdoors in front of the Pitkin Education Center to allow students and faculty to access Bergen's collection of computers, software, and their Internet Connections. The Bergen OIT Web site provides details on the continually expanding wireless coverage. All wireless users are required to authenticate and are subject to the College's A cceptable Use Policy.

The Office of Student Life strives to provide a comprehensive college experience- one that extends beyond the classroom. Student life is enhanced and enriched through a wealth of programs extending from educational to extracurricular and cultural programs that reflect the interests and strengths of both the students and faculty advisors. All Bergen Community College students are encouraged to become involved in club activities and organizations, and to develop their leadership skills through participation in clubs and organizations, the Academic Honors C lub, Academic Club O rganizations, Leadership Weekend and Diversity Weekend.

O ne of the best ways for students to achieve success at Bergen Community College is to learn how to balance their academic and non-academic pursuits. There should be a good balance of giving and receiving in a student's life at Bergen Community College. This balance can be shown as a simple equation:

W hat a student gets out = what a student puts in!
This equation works equally well in the classroom, in social life and in club activities. The O ffice of Student Life is here to help students become involved in one of the many student-run organizations on campus so that they will get the most out of their college experience. One of the greatest benefits of being involved in a college activity is the opportunity to learn to effectively communicate with others. Also, involvement in student leadership results in the development of leadership skills. Give it a try! Stop by the Office of Student Life, Room A-115, or call the $O$ ffice at 201-447-7215 and ask about student clubs. Don't worry about being inexperienced. The staff will guide students and teach them how to become effective leaders-skills that are useful no matter what path a student chooses to follow. The Office of Student Life can also help students start new clubs if the desired club is not already on the list below.

## Student Government Council (SGC)

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 Bergen students.

## Student Activities Board (SAB)

The Student Activities Board (SAB) plans and provides programming for an active social environment for Bergen students. Programs offered include musical events, lectures, dances, 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 M onth, and Black History M onth. Students wishing to participate on the SAB should contact the Student A ctivities Board $O$ ffice at 201-612-5296 or stop by Room A-110

## CLUBS

N ote: All clubs may not be active every semester.

## African Student Coalition

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

## American Sign Language (A.S.L.) Club

This club was formed to raise the aw areness of the college campus regarding the language and culture of the Deaf and H ard of H earing communities.

## Anime Club

A nime is a student club that focuses on learning more about the Anime style of drawing 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.

## Asian Indian Student Association

Students interested in Indian culture or of Indian descent are encouraged to become involved with this association. The main purpose of the association is to promote activities at the College, which increase awareness of Indian culture.

## Bergen Honors Association

The Bergen Honors Association is Bergen's fastest-growing, most dynamic student organization. As part of an exciting community of students who share common academic goals, members can: serve as part of a student advisory board for Honors faculty; plan and participate in Honors events throughout the year; and learn about transfer agreements, scholarships, and the benefits of graduating with an Honors Degree. All Bergen students interested in the H onors Program are eligible for membership.

## 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 African-American people. The club also promotes political awareness with visits from local government officials.

## Buehler Columbia Amateur Astronomers Association

The Buehler Columbia A mateur A stronomers A ssociation was formed on February 8, 2003, to be responsible for the ordering and maintenance of the equipment of the Emil Buehler Trust Observatory, located in the Technology Education Center. The club also conducts "public nights," on most Saturday nights, for the observation of celestial objects, and other special events in conjunction with the observatory.

## 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 Bergen and the club participates in collegiate tournaments.

## Chinese Club

The Chinese Club brings students together to share traditions and celebrate the Chinese culture through meetings and events.

## Christian Fellowship

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

## Creative Writing Club

The club is intended for students with an interest in creative writing and reading. Students meet to read and critique each other's work.

## Criminal Justice 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 Bergen student.

## Dance Club

Students studying or interested in pursuing the art of dance are welcome to join this club, which meets in the rehearsal studio Room C-106D. Free dance lessons in a variety of dance styles are offered throughout the year, culminating in a Summer D ance Intensive.

## Dental Hygiene Club

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

## Early Childhood Education Club

The Early Childhood Education Club meets to discuss issues in childcare. 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 Bergen's more active organizations. Students interested in preserving the environment, recycling, environmental issues and concerns are welcome.

## Filipino-American Association

The Filipino-American Association promotes the Philippine heritage through its various cultural and social events, workshops, and lectures. It is open to all students of Filipino descent and also to those interested in the rich history and culture of the Philippines.

## Floetry Foundation

The Floetry Foundation is comprised of students who enjoy expressing themselves through song, poems, and improvised performance. The club performs and sponsors many events on campus.

## Franco-Italian Club

This club is for any student interested in learning about both the French and Italian cultures. M embers celebrate these cultures through food, music, film, and art.

## Gay/Lesbian/Bisexual/Transsexual Alliance (GLBT)

The organization strives to create an environment conducive to the personal and social development of individuals who identify as gay, lesbian, bisexual, and trans-gendered, and to advance awareness and unity among the entire Bergen community.

## Hillel

The purpose of Hillel at 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.

## Horticulture Club

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

## 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.

## Into Action Club

Fostering exploration and understanding of human behavior and social problems, the Into Action 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.

## Korean Student Association

Students get together to share their culture and experiences. The club also sponsors activities to promote awareness of K orean culture at Bergen Community College.

## 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 A ssociation 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 M usic Interactive Club.

## Muslim Student Association (MSA)

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 M SA invites all members of the college community to participate.

## Native American Heritage Club

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

## Nursing Student Association

The N ursing Student Association strives to contribute to nursing education in order to providethe 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 N ew Jersey N ursing Students Association Convention.

## Paralegal/Legal Nurse Consultant Council

The Paralegal/Legal N urse Consultant Council is open to any students studying or interested in the Legal A ssistant field.

## 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.

## Polish Cultural Club

The Polish Cultural Club brings students together to share in their culture and hosts events that celebrate Polish 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.

## R.E.B.E.L. University

R.E.B.E.L. (Reaching Everyone By Exposing Lies) is the antitobacco organization on campus.

## 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 O ut day, and visits a New York hospital.

## Russian Club

This club is for students with an interest in Russian language and culture. The club brings various speakers, artists, and performers to the college to give the entire Bergen community a chance to share in Russian culture.

## Sci-Fi Club

The focus of this club is science fiction movies, television, books, and video games. The club frequently shows films, which are open to all of Bergen Community College.

## Speech and Debate Club

This organization focuses on public speaking, and the development of logical arguments. The members participate in several debate tournaments throughout the year.

## Staff and Student Club

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

## S.T.A.R. Club

The goal of the Student Team Ability Resource Club is to motivate Bergen students to help each other to achieve their goals and to develop a sense of altruism among the student body.

## Technology Club

This club deals with the interaction of people and technology in modern society. The club also sponsors various activities on campus, including technology workshops and computer repair clinics.

## Theatre Club

Students interested in performing or participating in any area of theatrical productions are invited to join the Bergen Community College Theatre Club. During the fall and spring semesters, the Theatre Club presents 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 Bergen Community College student newspaper, The Torch keeps the college community informed about on-campus events, student activities, student and faculty achievements, and other news of interest to the student body. Journalism experience is not alw ays necessary for staff writers and all students are encouraged to join the staff of the newspaper.

## Veterans Club

Comprised primarily of veterans, reservists, and members of the $N$ ational Guard, the Veterans Club is involved in a series of activities focusing on the observance of holidays which commemorate American veterans. M embers have visited the Vietnam M emorial in Washington, DC, 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.

## Vet Tech Club

The objective of this organization is to expose students of the N orthern New Jersey Consortium for Veterinary Technician Education to the field of veterinary technology and to join together to promote animal welfare.

## FOUNDATION ALUMNI NETWORK

The Bergen Community College Foundation Alumni N etwork advances the mission of the College by promoting ideas, leadership, and personal relationships among alumni, current students, faculty, staff, and administration. The Alumni N etwork links Bergen graduates to the past, present, and future for College benefits and services.

The $\mathbf{N}$ etwork offers members extensive benefits and services:

- Use of College facilities including Library resources, pool, computer labs, and athletic facilities
- Special Career services including employment skills workshops, job listings, and assistance with resume writing
- A variety of social activities including seminars, receptions, and special trips

For more information, call or write the Foundation Alumni N etwork at the College, c/o Scoskie H all, 201-447-7117 or by e-mail at AlumniN etwork@Bergen.edu.


## ATHLEICS

At Bergen Community College we believe that athletics is an integral part of the educational experience. The A thletics D epartment offers programs that provide students with the opportunity to participate in intercollegiate and intramural athletics in a wide variety of sports including basketball, baseball, track and field, soccer, golf, softball, cross country, and volleyball. The Bergen Community C ollege Bulldogs (colors - purple, white and orange) regularly place athletes on All-A merican, All-Region, and AllConference athletic and scholastic teams.

Bergen believes that athletics is an important way in which students can maintain good health, learn, and grow. In order to benefit from the athletic experience, the A thletics Department is committed to the following concepts and principles:

The Student-Athlete - At Bergen, we firmly believe that each participant is a student first, then an athlete. Bergen provides each stu-dent-athlete with the best educational opportunities and support programs to help them grow and succeed in the classroom as well as on the playing field. Bergen values competitive athletic and academic experiences that build self-esteem, a sense of responsibility, civility and an understanding of how to interact with others.

Integrity - Positive attitude and good sportsmanship characterizes every aspect of policy, performance, and competition in athletics at Bergen. All participants are expected to exemplify honesty and integrity whether they are athletes, coaches, fans, administrators, or support staff of the Athletics Department.

Respect for the Individual - Bergen reinforces and enhances the climate of mutual respect as outlined in the Student-A thlete Code of Conduct. Bergen values the contribution of individuals in all the organized team sports and encourages open communication and participation for all.

A Tradition of Leadership - In all aspects of athletics, Bergen strives to nurture the inherent opportunities for leadership that come from playing a competitive sport. We believe the qualities of leadership and goal setting reside within each individual athlete and strive to create the environment needed to allow these qualities to develop.



Bergen Community College is a Division III (non-scholarship) member of the Garden State Athletic Conference (GSAC) and Region XIX (comprised of two-year colleges in New Jersey, Delaware, and eastern Pennsylvania) of the $N$ ational Junior College Athletic Association (NJCAA). Individual teams also occasionally schedule games with two-year colleges from other states and Canada. All students interested in participating are required to undergo a physical examination before any type of activity. M ore information is available from the A thletic O ffice at 201-447-7182, or online at http://www.bergen.edu/athletics.

The Bergen Athletics Department offers varsity intercollegiate programs in the following 12 sports:

## Fall Sports

M en's Soccer Women's Soccer Cross Country (M en \& Women) Women's Volleyball

## Winter Sports

M en's Basketball Women's Basketball W restling

## Spring Sports

Baseball
Softball
Track and Field (M en \& Women) Tennis Golf


Intramural sports are available to those students who enjoy competition with a less rigorous schedule. The A thletic 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 coed 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. Students interested in getting involved in intramurals, please call 201-447-7182.

## RULESAND RECULATIONS GOVERNING CONDUCT

At the beginning of the academic semester, each incoming student is expected to obtain a copy of the Student $H$ andbook. The handbook 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 Student H andbook.

The handbook will be available in the Office of Student Life, the Welcome Center and the evening office. Students attending orientation will be informed of the availability. The handbook is also available on the Web site and to each student attending the Introduction to College Experience course.

## Code of Student Conduct

The Board of Trustees authorizes the President of the College to employ a disciplinary process to administer 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.

All students are governed by college rules and regulations. 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. A breach of college rules and regulations;
3. Disobedience to local, state or federal laws;
4. A disruption of the College's regularly planned programs and activities;
5. A cademic 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.

## Sanctions

1. The following sanctions may be imposed upon any student found to have violated the Student Code:
a. Warning - A notice in writing to the student stating that the student is violating or has violated institutional regulations.
b. Probation - A written reprimand for violation of specified regulations.
Probation lasts for a designated period of time and includes the probability of a period of more severe disciplinary sanctions if the student is found to violate any institutional regulations(s) during the probationary period.
c. Loss of privileges - Denial of specific privileges for a designated period of time.
d. Fines - Previously established and published fines may be imposed.
e. Restitution - Compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material assignments.
f. Discretionary Sanctions - Work Assignments, essays, service to the College or other related discretionary assignments.
g. College Suspension - Separation of the student from the college for a designated period of time, after which the student is eligible to return.
h. College Expulsion - Permanent separation of the student from the College.
i. Revocation of Admission and/or Degree - Admission to or a degree awarded from the College may be revoked for fraud, misrepresentation or other violations of College standards in obtaining the degree or for other serious violations committed by a student prior to graduation.
j. Withholding Degree - Bergen Community College may withhold awarding a degree earned until the completion of the process of all sanctions imposed, if any.
2. M ore than one of the sanctions listed above may be imposed for any single violation.
3. Other than expulsion, revocation, or withholding of a degree, disciplinary sanctions shall not be made part of the student's academic record but shall be part of the student's disciplinary record.

## Interim Suspensions

In certain circumstances the Director of Student Life and Judicial Affairs or a designee may impose a College suspension prior to the Student Code of Conduct Board hearing.

1. Interim suspension may be imposed only:

- To ensure the safety and well-being of members of the College community or preservation of property
- To ensure the student's own physical or emotional safety and well being
- If the student poses an ongoing threat of disruption to, or interference with, the normal operations of the C ollege.

2. During the interim suspension, a student shall be denied access to the campus (including classes) and/or all other College activities or privileges for which the student might otherwise be eligible, as the Director of Student Life and Judicial Affairs may determine to be appropriate.
3. The interim suspension does not replace the regular process, which shall proceed on the normal schedule up to and through a student conduct Board hearing, if required.

## Appeals

A Decision Reached by the Student Conduct Board

1. A decision reached by the Student Conduct Board or a sanction imposed by the Student Conduct Administrator may be appealed by the A ccused Student to the Vice President within five (5) school days of the decision. Such appeals shall be in writing.
2. Except as required to explain the basis of new information, an appeal shall be limited to a review of the verbatim record of the Student Conduct Board hearing and supporting documents for one or more of the following purposes:
a. To determine whether the Student Conduct Board hearing was conducted fairly in light of the charges and information presented, and in conformity with prescribed procedures giving the complaining party a reasonable opportunity to prepare and to present information that the student code was violated and giving the Accused Student a reasonable opportunity to prepare and to present a response to those allegations. Deviations from the designated procedures will not be a basis for sustaining an appeal unless significant prejudice results.
b. To determine whether the decisions reached regarding the Accused Student was based on substantial information, that is, whether there were facts in the case that, if believed by the fact finder, were sufficient to establish that a violation of the Student Code occurred.
c. To determine whether the sanctions were appropriate for the violation of the Student Code which the student was found to have committed.
d. To consider new information sufficient to alter a decision, or other relevant facts not brought out in the original hearing, because such information and/or facts were not known to the person appealing at the time of the original Student Conduct Board hearing.
3. If an appeal is upheld by the Vice President, the matter shall be returned to the original Student Conduct Board and Student Conduct Administrator for reopening of a Student Conduct Board hearing to allow reconsideration of the original determination and/or sanctions. If an appeal is not upheld, the matter shall be considered final and binding upon all involved.

## 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 on College property or as part of any of its activities.

The College alcohol policy prohibits possession or consumption of alcoholic beverages on the Bergen Community College campus, with the exception of special, approved receptions in the $M$ oses Family M eeting and Training Center. 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.

Local, state and federal laws that 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 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 college-connected activity.
2. The Executive Vice President and Vice President of Student

Services shall submit to the College President all information they 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 College-connected 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 judgment of the counselor, there exists a clear and imminent danger to life, limb, or property.

Students should refer their questions concerning drug and alcohol abuse and treatment to Health Services in Room H S-100 (201-447-9257) or to one of the Personal Counselors in Room A-118 (201-447-7211).

## Club and Student Organization 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 Bergen Community College 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. These funds are approved in the Spring Semester. 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 O ffice of Student Life.
2. The Office of Student Life 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 offcampus 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 Vice President 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 Office of Student Life;
j. Each club or other student organization to be considered must register each semester by submitting a list bearing the names, home addresses, and telephone numbers of its officers to the Office of Student Life.
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 $O$ ffice of Student Life.

## Financial responsibilities

- The president of the organization, the chairman of the function, and the club advisor 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.
- All contracts must be signed by the Vice President of Student Services, or his designee. Copies of the contract must be filed in the Office of Student Life.
- The College Controller in the Office of the Vice President of Administrative Services is to act in an advisory capacity to any organization in need of assistance in regard to Internal R evenue taxes or any other financial matter.
- A financial report must be completed and filed with the Office of Student Life no later than two weeks after the function.
- A detailed and documented list of expenses must be retained as a permanent record by the organization.


## Club Event Chaperones

O ne chaperone is required at all events, although it is recommended that two serve at social functions. O ne of the chaperones must be a member of the college faculty or administration. The duties of the chaperones shall be as follows:

## On C ampus Events

- To supervise the activity and assure adherence to College polices and regulations
- To enforce Bergen's policy on ZERO alcohol consumption.
- To cooperate with the committee chairperson in seeing that good taste and proper standards of conduct are maintained.
- To submit a brief summary report/evaluation to the Office of Student Life after the event.


## Off C ampus Events

- To abide by the duties listed above.
- To present the Office of Student Life with a list of all students attending the event, as well as an Emergency Contact Form for each attendee.
- If it is an overnight event (conference, seminar, etc.), the O ffice of Student Life needs to be provided with all information regarding the trip. This includes transportation, hotel and conference information.
- To have all emergency numbers.

In the event of an emergency the chaperone must contact the Director of Student Life and Judicial Affairs and the Vice President of Student Services.

TheChaperonemust beat each event from thebeginning to the end.

## Club Event Guest Speaker Program Policy

1. The Office of Student Life is to be notified one month in advance of the purpose, time, place, speaker(s), topic(s), and other preparations as necessary.
2. When such notification has been received, the Office of Student Life 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 theVicePresident 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 view points 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 hasaccepted theinvitation.
5. Literature may be posted on authorized bulletin boards only; nothing may be posted on the exterior of College buildings or elsew here on the campus.
6 . The program sponsors are responsible for assuring proper compliance with all the rules and regulations.

## 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 Public Relations.

## Demonstrations

The philosophy of Bergen Community College is to encouragefree dom in the expression of ideas presented in a scholarly and lawabiding 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. The demonstration must be conducted without harassment and without detaining any individual on or off campus.
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 the demonstration, approximate number of participants, type of activity involved (e.g., picket-
ing, 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, the indoor swimming pool, 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 Office of Public Safety or the H ealth Services Office 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: WCBS/880, W OR/710, 1010 WINS, WVNJ 1160, and Cablevision/N ews 12 NJ , or log on to the College's Web site, http://www.bergen.edu.

Students may also wish to log on to http://www.1010W IN S.com to sign up for e-mail notification of college closings.

## Please do not call the school.

## Emergency Telephone Calls/Messages

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 Center for Institutional Effectiveness and Research, Student Center, Library, Financial Aid, the Office of Admissions and Registration or the A thletic Department.

## Family Educational Rights and Privacy Act (FERPA)

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

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

Students should submit to the Director of Enrollment Services, Dean of the division, $H$ ead of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The C ollege 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 record that the student believes is 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 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 FERPA authorizes disclosure without consent.

O ne exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is defined as a person employed by the College in an administrative, supervisory, academic, research, or support staff position (including Public Safety 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; a student serving on an official committee, such as a disciplinary or grievance committee; or a person assisting another College official in performing his or her tasks. A College official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the College discloses education records without consent to officials of another school in which a student seeks or intends to enroll.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U. S. Department of Education

400 Independence Avenue, SW
Washington, D.C. 20202-4605

## FIRPA-DIRECTORY INFORMATION PUBUC NOTICE

The confidentiality of students' education records is protected by FERPA as outlined in the notice above. However, FER PA allows the College to release student "directory information" without a student's consent unless the student has requested such information be kept confidential. Bergen Community College defines "directory information" as the following:
name, address, date of birth, dates of attendance, enrollment status, degree(s) received, honors and awards received, field of study, current credit load, credit hours earned, date of degree, and participation in officially recognized activities and sports.

The most common purpose for releasing student directory information is to verify that a student is enrolled in the College in response to requests for this information from potential employers, credit agencies and others. All requests for student directory information are forwarded to the Office of the Executive Vice President for review and response.

The College offers students the option to keep directory information confidential. However, please be advised that doing so will make this information unavailable to all, including prospective employers, credit agencies, and others to whom you may want this information known or verified. Submitting a request to the O ffice of Enrollment Services (forms are available in Room A-129) to have your directory information withheld will make this information confidential until you request in writing to the Office of Enrollment Services that this restriction be lifted. As with all confidential student records, the College will release information to specific individuals or entities only with the express written consent of the student or as otherwise required by law.

For questions about compliance with FERPA, please call the $M$ anager of Training and Compliance at 201-612-5331.

## 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 close to the College. Students are cautioned not to trespass on the neighboring golf courses; offenders will be subject to disciplinary action by the College.

## Availability of 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 or obtained in the Center for Institutional Effectiveness and Research, the Library, and the Office of Admissions and Registration.

## ADA \& Section 504 Grievance Procedures

Bergen Community College has adopted an internal grievance procedure to provide 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 A mericans 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 any such entity."

Complaints should be addressed to the $M$ anager of Training and Compliance (Office of the Executive Vice President, Room A-330, 201-612-5331) who has been designated to coordinate section 504/A DA compliance efforts.

Complaints should be made in writing and should contain the name and address of the complainant and a brief description of the alleged violation of the regulations. Complaints should be filed not more than 30 days after the complainant becomes aware of the alleged violation.

Complaints shall be investigated by the $M$ anager of Training and Compliance if such an investigation is warranted. Investigations shall be thorough and shall afford all interested persons and their representatives, if any, the opportunity to submit information relevant to the complaint and its resolution. A written determination as to the validity of the complaint and a description of the resolution, if any, shall be prepared by the $M$ anager of Training and Compliance and a copy forwarded to the complainant no later than 25 working days after its filing. The Section 504/ADA coordinator shall maintain files relating to the complaints filed.

The right of a complainant to a prompt and equitable resolution of a complaint filed hereunder shall not be impaired by the complainant's pursuit of other remedies, which could include the filing of a section 504/AD A complaint with the responsible federal department or agency. Utilization of this grievance procedure is not a prerequisite to the pursuit of other remedies. 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/ADA and implementing regulations.

## Social and Educational Functions Policy

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 Office of Student Life.

## 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 Office of Student Life.

## Special Equipment

- The public address system: To use any of the P.A. systems on campus, permission must be obtained from the Office of Student Life.
- O ther equipment: Requests for other types of equipment for students' functions are generally directed toward the Office of Student Life.


## Notifications

Supervisor of Public Safety should be notified of all on-campus social or academic functions.

## 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. N oise 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. This includes the entire property, parking lots and gym facilities.

## Off-Campus Trips

An officially registered college club or organization that wishes to sponsor an off-campus trip must file a written application and receive approval through the Office of Student Life at least one month 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 approved by the Office of Student Life. Each copy must bear the words "Bergen Community College," the name of the group or groups sponsoring the petition, and the petition itself. The Office of Student Life will provide guidelines for this activity to the individual organizing the event.

## Policy for On-Campus Activity by NonCollege Organizations/Vendors Distribution of Materials on Campus

External groups or members of the campus community wishing to distribute or post flyers, circulars, or any other material on campus must apply for permission to do so at the Office of Student Life, Room A-115, at least three business days prior to any planned distribution. A copy of materials to be distributed must be submitted along with application for permission to distribute. The College will identify locations on campus where materials may be distributed or posted to ensure that normal College operations or traffic are not adversely affected. Pressure is not to be exerted upon individuals to accept materials. Generally, these materials may not be distributed to faculty to be read in class. Any request to do so must be explicitly approved by the Vice President of Student Services. Placing flyers or other materials on car windows or in bathrooms is prohibited.

## Policy and Procedures for Displaying Flags on Campus

The main campus flag pole is located at the entrance of the College (near Paramus Road) and is reserved solely for displaying the United States, State of New Jersey, and Bergen Community College flags. The U.S. flag will be lowered to half staff at the direction of the President of the United States or the State flag at the direction of the Governor of the State of N ew Jersey. In special circumstances, the College flag will be lowered to half staff at the direction of the President's Office.

Flags of countries will be displayed throughout the Bergen Community College campus as a symbol of Bergen's commitment to diversity and international understanding. Flags are symbols that identify people belonging to a group. The flags, especially those of a nation, embody the honor and pride of the people they represent and need to be treated with respect.

It is very important that the display of country flags be treated with consistency so as not to offend the very groups we intend to honor by displaying the flag. Flags are to be the same size. If possible, flags are to be hung or displayed horizontally. If flags must be hung vertically, they must all be hung in the same orientation.

Given that many international members of the college community are interested in displaying on campus the flags of their home countries, the following procedures have been established by the College:

1. The flags of countries that are recognized by the U.N. (i.e., those countries that are listed by the U.N. as member states, non-member states with permanent observer status, or national "entities" with permanent observer missions) will be displayed in the hallways of the school. Determination of the flags to be displayed will be made by the Vice President of Student Services.
2. The flags of countries that are recognized by the U.N. (as defined above) may be displayed at campus events to recognize and represent international students studying at the college. Flags of $N$ ative A merican nations will be recognized as sovereign entities.

Flags representing groups, cultures, or nations not specified above may not be displayed unless prior written approval is obtained from the Vice President of Student Services or the President's designee whose decision shall be final. Inquiries about the Flag Policy should be directed to the Office of the Director of Student Life and Judicial Affairs, Room A-115.

## 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. Students are instructed to take their personal belongings with them and immediately leave the building by the nearest stairway. Do not use the elevators. Only authorized individuals may be in the building during a fire alarm.

## Policy Prohibiting Sexual Harassment

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 may be 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 N ew Jersey Law A gainst Discrimination, established case law or State policies. The policy applies to all persons: administrators, faculty, staff, students, guests and visitors are all covered.

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. The College will enforce this policy and expects all employees and students to be diligent in preventing, detecting, and reporting any incidents of sexual harassment. Every employee and student is expected to avoid any act or statement 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 $H$ arassment 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. C oercion 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 Section A, Paragraphs 1-3 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. Student-on-student harassment is a violation of the Policy Prohibiting Sexual $H$ arassment and must be reported to the $M$ anager of Training and Compliance, Room A-330, telephone number 201-612-5331. Unwelcome sexual conduct by one student that disrupts another student's ability to learn, or conduct that creates a hostile learning environment, will be handled through the College's policies that address student conduct and not the Complaint Process for resolving Sexual H arassment Complaints.
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 and correct such behavior, and if necessary, take disciplinary action against an individual whose behavior 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 providing an intellectually stimulating environment where a diversity of ideas is valued. Its rules must be promulgated for the purpose of furthering and protecting the rights of all members of the College 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 is 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 N ew 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 N ew 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 off-campus sexual assault.


## Human Dignity Rights

- To be free from any suggestion that victims must report the crimes in order 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:
- Report crimes if the victim does not wish to do so.
- R eport crimes as lesser offenses than the victim perceives the crime to be.
- 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 med-
ical, 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:
- Any rights to confidential or anonymous testing for sexually transmitted diseases, human immunodeficiency virus, and/or pregnancy.
- Any rights that may be provided by law to compel and disclose the results of testing of sexual assault suspects for communicable diseases.


## Campus Judicial 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 reasonably available.


## Statutory Mandates

- 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. - N othing 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 edu-
cation in the State from reporting any suspected crime or offense to the appropriate law enforcement authorities.


## Smoking Policy

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 are in full 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 Office of Public Safety for record keeping.
2. A second 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 M ay 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.

## 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 Life one month 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. 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 M otor Vehicle Regulation booklet.

## A cademic \& Student Facilities

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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 entrance is located on the 2 nd level of the Pitkin Education C enter. The library is open seven days a week during the fall and spring semesters, and weekdays during the summer.


## THE SIDNEY SILVERMAN LIBRARY AND LEARNING RESOURCE CENTER

## Reference Network/Computer Services

The Library's R eference $N$ etwork consists of clusters of computers with high-speed Internet access. Priority on Library computers is given to Bergen Community College students engaged in course-related work.

## Help for Students

Experienced library staff are available during regularly scheduled hours to help students and to offer guidance in using the Library's extensive collection of print and electronic resources.

## Library Instruction

The Library works in partnership with classroom faculty to provide students with instruction in basic research techniques and database searching.

## Library Collection

The Library materials are selected with consideration for the varied interests and educational needs of students and faculty and include books, newspapers, magazines, and extensive electronic holdings available $24 / 7$ via the Library Web site. The resources of other libraries in N ew Jersey, and the nation are available to Bergen Community College students through interlibrary loan.

## Media Services

Library M edia Services provides a full range of multi media services. The collection includes videotapes, audiotapes, DVDs, and CDs on a wide variety of subjects to meet educational goals. Students are encouraged to use this collection for selfinstruction, review, enrichment, and to use equipment for classroom presentations.

## Other Services

Photocopiers and microfilm reader-printers are available in the Library for student use.

A daptive equipment is available for students with special needs and includes text magnifiers and workstations equipped with screen magnification and screen reading software. The Library also has an extensive collection of closed-captioned videos.

Library Web Page http://www.bergen.edu/library
The Library Web page is the gateway to Library information and services. Please check it for current information.

## INSTRUCTIONAL FACILTIIES AND SERVICES

## Academic Advising Center

The A cademic A dvising Center, located in the Pitkin Education Center (Room A-101; 201-612-5480) assists students with information about Basic Skills Tests results and required courses, degree program requirements, selecting courses and developing a schedule of classes, and other important information regarding academic progress and College policies and procedures. The Faculty Advisors are available on a drop-in basis and help students interpret the Program Evaluation, which is available on WebAdvisor (http://go.bergen.edu).

## Adaptive Technology Laboratory

The Adaptive Technology Laboratory provides adaptive technology to aid students who are hard of hearing or deaf, have visual disabilities and/or learning disabilities. The laboratory contains computer software that enables students to have full access to information, electronic readers, print enlargers and Braille printers. To take advantage of these services please submit your disability documentation to the Office of Specialized Services (OSS) as soon as possible. The deadlines for submitting disability documentation are: August 1 for Fall Semesters and December 1 for Spring Semesters. For more information please visit the OSS Web site at: http://w ww.bergen.edu/oss.

## Health Professions and Nursing Facilities

Each H ealth Care curriculum is supported by extensive facilities including $X$-ray and ultrasound units, hospital laboratory equipment, a dental hygiene clinic, a surgical technology laboratory, and the Veterinary Technology Surgical N ursing Center.

## Anna Maria Ciccone Theatre

The Anna M aria Ciccone Theatre accommodates an audience of 300 and serves a wide range of performing arts. M ost importantly, the theatre serves as an environment where students develop their skills in a full range of theatre crafts. The Ciccone 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.

The Ciccone 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.

W hile the primary purpose of the theatre is to meet the educational needs of Bergen 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, for Bergen student productions and for the performing arts series. Season brochures may be obtained from the Community and Cultural Affairs Office in Room A-315, or by calling 201-447-7428.

## Applied Music Studios

The music program maintains a complete applied music program, where traditional private music lessons for all instruments are taught in West H all R ooms 228, 229, 230, and 231.

The applied music studios are fully equipped and acoustically sound proof.

## Art Facilities

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

## Center for Collegiate Deaf Education

The $N$ ew 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. H oused within the Office of Specialized Services, the center provides access through the provision of note takers, tutors, assisting devices, and sign language interpreters. Please call 201-612-5270 or 201-447-7845 TTY for more information or visit the center in Room S-152.

## Child Development Center

The Child Development Center in Ender H all 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 A ssociate 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. All labs are equipped with state-of-the-art computers loaded with the M icrosoft Office Suite and curriculum specific software, as appropriate.

M any students choose majors or courses where computer hardware or software is the topic being studied. M any more students make use of computers in learning topics like M ath, English, World Languages, Visual Arts, Engineering, Drafting, Culinary Arts, Communication, Nursing, and Sociology. M ultimedia 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 50 networked computer labs and classrooms designed with a computer workstation for each student. There are additional specialized and smaller facilities for specific disciplines. Also, over 110 classrooms are equipped with projection systems, and most with a computer workstation at the presenter's podium. All classrooms are Internet accessible. The Library makes extensive use of computers, both to support patron services such as circulation of traditional print materials and to access electronic documents.

M any classes meet regularly in computer-equipped facilities. There are also free-time computing labs open up to 14 hours a day available to all currently enrolled Bergen students. In addition, the College hosts course-related Web pages for students enrolled in certain Web development courses.

The Information Commons, located in the Technology Education Center (TEC-114), provides computer, network, and Internet access in a relaxed, comfortable setting. Study carrels and informal seating allow students to work individually or in small groups. Wireless access to the Internet is also available to students throughout the Technology Education Center.

## Computer Graphics Lab

The Computer Graphics Lab in Room W-319 is equipped with 25 new iM acs ${ }^{\circledR}$ for instruction in computer print and Web graphics and design. Each workstation has the Adobe Creative Suite, M acromedia Studio 8, QuarkX Press, and Corel Painter. The lab is also equipped for high-volume color network printing and flatbed scanning. Additionally, iM acs® are available in Free Time Lab W-215 to support Apple software-based applications.

## Educational Broadcast Center

The Educational Broadcast Center (EBC) 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 produces educational television programs, programs for the community, and provides the facilities for commercial television productions.

## The Emil Buehler Trust Observatory

The Emil Buehler Trust O bservatory, located in the Technology Education Center, is equipped with two permanent 16 -inch reflecting telescopes and a third 16 -inch portable telescope for disabled students. The new observatory is made available to the community at large and supplements the outstanding resources of the Buehler Challenger Space and Science Center, also located on the College campus.

## Fine Arts Studio

The N atural M edia Lab in Room W-326 is a spacious fine arts studio with skylight for the Art Program's courses in drawing, life drawing, and painting.

## Greenhouse

A new 2500-square foot Greenhouse Complex in Ender H all features four different computer controlled environments, simulating conditions ranging from hot, dry desert sands to the tropical rain forest. The Greenhouse displays the diversity of plant life around the world. The complex includes a propagation room for cuttings and grafts and a large work area for class projects. The Greenhouse serves students in botany, plant science, interior plantscaping, greenhouse management, and plant propagation. Students studying in greenhouse production courses have the opportunity to grow a variety of flower and vegetable crops. The H otel/R estaurant program uses a section of the Greenhouse to grow fresh herbs for culinary use.

## Hotel/Restaurant Labs

Two fully equipped kitchens and a cafeteria permit students in the Hotel/R estaurant/H ospitality Program to gain experience in the culinary arts and food preparation. The newly renovated kitchen contains full-size Garland convection ovens, professional six-burner ranges, a professional pressure-steamer, a dry room and walk-in, six- and four-door commercial refrigerators
and freezers. It is also equipped with professional steam tables, restaurant stainless steel worktables and a restaurant size icemaking machine.

## Video Conference Centers

The interactive classrooms in West H all and in the Technology Education Center electronically link Bergen to classrooms in area high schools, colleges, and to satellite down-links. Through these facilities the College participates in national teleconferences and offers multi-college classes in areas such as Veterinary Technology.

## Laboratory Theatre

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

## Developmental Math Center

The Developmental $M$ ath Center offers tutorial services for students enrolled in Developmental $M$ athematics courses. Students who need assistance with homework or with preparation for developmental math tests may use the services of the Developmental $M$ ath Center. $M$ any students find it helpful to have a math faculty member available to answer questions which may arise. The Center is the primary location for D evelopmental $M$ ath retests. The Developmental $M$ ath Center is located in Rooms L-127 and L-128. The Center's hours are posted on its window.

## Multimedia Labs

The West H all M ultimedia Labs located in Rooms W-211 and W317, are high-tech multimedia centers for teaching computer animation, video editing, electronic music, audio mixing and orchestration, and video game design. The M ultimedia Labs provide art, music and broadcasting students with exciting opportunities for cutting-edge experimentation in 2D and 3D computer animation, video post production, DVD authoring, and in all areas of computer generated music composition and performance. The H P xw 8400 workstations are loaded with Avid Softimage X SI, Avid Media Composer, Adobe Video Production Studio, M acromedia Flash, Corel Painter, Avid Pro Tools, Sound Forge, Reason, and Cakewalk Sonar. Each station is connected to the college's Avid ISIS media server and has access to Avid M ojo and M -Powered equipment. The labs each contain synthesizers/samplers in which music students create their own compositions using the latest technology involving sequencing, editing, and mixing, to a final CD of their own music.

## Online Writing Lab (OWL)

The Bergen O nline Writing Lab (OWL) is a Web site designed to help students with all aspects of the writing process. It contains 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. It can be accessed at http://www.bergen.edu/O WL

## Photography Labs

The Art Program offers both traditional and digital

Photography. The Photography Lab maintains a black and white traditional darkroom with 15 enlargers in Rooms S-258 and S-256. The Digital Photography Lab in S-258 includes nine M acintosh computer stations which serve as digital darkrooms and large format color inkjet photo printers.

## Piano Labs

The Piano Lab, located in Room W-210, is the C ollege Center of Piano Pedagogy. In this lab, beginning to advanced-level group piano courses are taught on 13 piano synthesizers. The lab also features a grand piano for master classes and pedagogical demonstration. The Piano Lab is also equipped with a number of computers loaded with softw are for music printing, theory, and ear-training. A second Piano Lab (W-211) with 17 new synthesizers is also available for student practice.

## Recital Hall

The Recital Hall, located in Room W-226, accommodates an audience of 100 and serves as a music and lecture/performance hall. The hall, which features a concert grand piano, is also equipped with the latest in recording equipment and lighting systems.

## Recording Studio

The West Hall Recording Studio is the primary live tracking facility incorporating all aspects of digital recording, composition, sound design, M IDI, and audio editing. It features a fully automated console, digital mixer, Pro Tools HD system, and various outboard processing devices, samplers and synthesizers. The studio utilizes the adjoining R ecital H all for "live" studio recording as well as the recording of all concert events during the course of the year. The multimedia labs along with the recording suite offer students the maximum flexibility for creative activity, while simultaneously serving as learning laboratories in applying continuously changing technology to the art of music. Projects in film, audio, video post-production, and integration with animation, radio, and the new game design programs are finalized in the recording studio.

## Stryker Manufacturing Lab

Located in the Technology Education Center, the Stryker M anufacturing Lab, adjoined by two Computer Aided Drafting and Design labs, houses computerized milling and turning equipment, a model shop, and a meteorology station. In this simulated manufacturing laboratory, students are able to follow a high-tech manufacturing workflow, from developing a design through crafting and testing the prototype to actual manufacture of the commodity.

## Surgical Technology Laboratory

A \$573,300 High-Tech Workforce Excellence Grant awarded by the N ew Jersey Commission on Higher Education provided funding to create and equip a simulated high technology operating room, used to train students in the Surgical Technology Certificate Program on the equipment and instruments used in medical facilities. The laboratory is located in Room S-240.

## Technology Education Center

Thetwo-story, 50,000-squarefoot Technology Education Center features the stateof-the-art M oses Family M eeting and Training Center, a simulated manufacturing lab, six computer labs, two computer-
aided drafting and design (CADD) labs, an interactive television and videoconference classroom, an electronic library, and a two-domed observatory. Wireless technologies are used throughout the center.

## Testing Services

The Office of Testing Services (OTS) located in Room S-127, offers a variety of testing services. Among the tests administered are the English and M athematics Basic Skills Tests; the Levels of English Proficiency Test; challenge, proficiency, and credit-byexamination tests in a number of subject areas; instructional make-up tests; online course tests; and special accommodation tests (see pages $15 \& 16$ for details) Please note that developmental math retests take place in L-127/L-128.

## West Hall

The latest addition to Bergen Community College's campus facilities is West H all, home to Bergen's Educational Broadcast Center and $M$ edia Technologies. O pened in M ay 2007, West H all is a state-of-the-art facility containing television studios, a radio studio, and a video conference center. It also serves as the fine and graphic arts facility for the College which features computer graphics and animation laboratories, exhibition rooms, artist's studios and classrooms. The music arts instructional areas in the building include rehearsal rooms, piano labs, a M usical Instrument Digital Interface (M IDI) lab, a recital hall, and recording studios.

## The Henry and Edith Cerullo Learning Assistance Center

The Tutoring Center, English Language Resource Center, and Writing Center are collectively known as the H enry and Edith Cerullo Learning Assistance Center. The Cerullo Learning Assistance Center is located in the Pitkin Education Center, Room L-125; the telephone number is 201-447-7489.

## English Language Resource Center

The English Language Resource Center, located in Ender H all, Room 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 English as a Second Language (ESL) conversation groups and specialized language skill workshops. The center is open when classes are in session for day and evening hours. The telephone number is 201-612-5292.

## Tutoring Center

The Tutoring Center, staffed with peer and professional tutors, offers free individual and group tutoring, supplemental instruction, and online tutoring for subjects offered at the College. The Tutoring Center provides alternative approaches to problem solving and organizational skills. Tutors help clarify classroom lectures and textbooks and help students prepare for exams. These services build student self-confidence and reduce fear of failure. The Tutoring Center is equipped with the latest technology and software, including tapes, books, review sheets, exercises, and software programs.

SM ARTHINKING, an online tutoring program, is available free for all Bergen Community College students. Students apply for a SM ARTHINKIN G account by submitting an online application form at http://www.bergen.edu/smarthinking or by fill-
ing out a paper application at the Learning Assistance C enter.
The Tutoring Center's success is due to the team collaboration of Tutoring Center staff members, tutors, faculty, counselors and administrators. The Tutoring Center is located in the Pitkin Education Center, Room L-125; the telephone number is 201-447-7489.

## Writing Center

The Writing Center, located in the Learning Assistance Center L-125, is designed to help students improve their writing. Individualized tutorials in all facets of the writing process including the development of ideas, organization, editing, and proofreading are available to all students enrolled in collegelevel 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 for their own 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. The telephone number for the Writing Center is 201-447-7489. See also, the Online Writing Lab (OWL), an extension of the Writing Center.

## 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 fields, 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 there is a Fitness Center in Room S-128.

## Auditorium

The auditorium is located in the Student Center in Room A-104 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 Pitkin Education Center. The bookstore will buy back most 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 telephone number is 201-445-7174.

The bookstore accepts personal checks, with two forms of matching ID. Both forms of ID must have the same address that is imprinted on the check. Checks must be imprinted; starter checks are not accepted. There is a $\$ 25$ charge for any check returned to the bookstore by the bank. Visa, M asterCard, A merican Express, Discover, and money orders are accepted for payment.

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 one week
of the beginning of the semester/session. All other returns must be made within seven days of purchase. Books must be in original purchase condition (new, unmarked, and unwrapped). All returns must be accompanied by the book receipt. There will be no refunds on study aids, such as Cliff $N$ otes, dissection kits, calculators, and office supplies. Refunds on purchases by check will be given after ten business days, allowing for the check to clear.

Students may find out the cost of textbooks and order books online at http://www.efollett.com. The books will be shipped directly to the student. Students should allow seven to ten business days for their books to be delivered, especially during the beginning of each semester when book purchases are at their peak.

Bookstore Hours (Subject to change)

## Fall and Spring

M on-Thurs 9:00 a.m.-7:00 p.m.
M on-Thurs (no classes in session) 9:00 a.m.-5:00 p.m.
Friday (if the building is open)
Friday (if the building is closed)
9:00 a.m.-3:00 p.m.
CLOSED

## Bookstore Summer Hours

M on-Thurs (Summer Sessions) 9:00 a.m.-6:00 p.m. M on-Thurs (no classes in session) 9:00 a.m.-5:00 p.m. Friday (if the building is open) 9:00 a.m.-3:00 p.m. Friday (if the building is closed)

## Career Development

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

## Child Development Center

The Child Development Center, in Ender H all, is available to Bergen 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 N ew 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 (Pitkin Education Center, Room A-118; 201-447-7211) has a staff of Professional Counselors who offer a wide variety of services for students.

Academic Counselors assist students in selecting programs of study that are appropriate for their personal and professional goals. Students and counselors work together to choose a program of study that is suitable to the student's needs based on factors such as academic status and history, professional goals, and educational backgrounds. Workshops and literature are provided in the areas of study skills, time management, and test taking.

Personal Counselors provide students with a safe and confidential atmosphere where they have an opportunity to talk about their individual concerns. The Personal Counselors will help students understand themselves, explore alternatives, reach a
decision, or feel better about coping with problems. When appropriate, a student may be referred to outside agencies.

International Counselors provide services and programs to international students. Following international student admission to Bergen, the International Counselors are available to help students with adjustments to this country and to help students take part fully in student life.

Transfer Counselors assist students by providing information about the transferability of courses taken at Bergen, articulation agree ments with four-year colleges, and the transfer process. In addition, they lead Transfer Workshops, organize Transfer Fairs, and provide transfer resources for the students. Transfer counselors are available by appointment in the Counseling Center, Room A-118.

Students are advised to attend a Transfer Information Session early in their academic career. These sessions are offered four times each semester and deal with the basics of choosing courses and how courses will transfer to other institutions.

Two Transfer Fairs are held each year. In the fall, representatives from over 50 colleges-both in-state and out-of-state-attend, and in the spring, representatives from local N ew Y ork and N ew Jersey colleges attend. Throughout the year, representatives from many colleges are on-campus for individual visits and several colleges hold individual information sessions for students.

Transfer information and resources are available to students both online and at the Counseling Center. Available materials include the "Transfer Guide," the "Transfer Connection" (a checklist of procedures for the actual application), "ARTIFACTS" (a list of all of Bergen's agreements with other colleges and the benefits for students), and "Best Bets" - guidelines which help students select the proper classes for transferring to specific colleges and universities. Also available are guidelines for specific majors detailing course and GPA requirements for direct transfer to the same major at another institution.

Applications and course catalogs for other colleges are available on their Web sites.

## All information about Transfer is available online at http://www.bergen.edu/ transfer.

Alcohol and Drug Resources and Services. The Counseling and H ealth 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, nonjudgmental 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 acknow ledging 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.

## Services for Students with Disabilities

A wide variety of academic support services are available to students with documented disabilities through the Office of Specialized Services (OSS). If a student has been classified in high
school or had a 504 plan, it is highly recommended that the student contact OSS during the college application process. The deadlines for submitting disability documentation are: August 1 for Fall Semesters and December 1 for Spring Semesters. For further information, please visit the OSS Web site at http://www.bergen.edu/oss. Personal information is kept confidential.

Accommodations are provided only through the Office of Specialized Services and must be planned as early as possible. The following academic support services (accommodations) may be provided based on a student's disability documentation:

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\begin{aligned}
& \text { Extended test taking time } \\
& \text { Tutoring } \\
& \text { A cademic Counseling } \\
& \text { A daptive Equipment Computer Labs } \\
& \text { R eferrals for off campus services } \\
& \text { Student Support Groups } \\
& \text { Career Counseling } \\
& \text { Sign Language Interpreters } \\
& \text { N ote takers } \\
& \text { Educational Support Strategies }
\end{aligned}
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O ngoing psychotherapy or personal attendant services are not provided by the College.

## Dental Hygiene Clinic

The Dental Hygiene Clinic in Room S-327 is open to Bergen students and the public, and provides preventative dental care services. The clinic is operated by students in the Dental H ygiene 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 an appointment or information, call 201-447-7180.

## Fitness Center

The Fitness Center for student use is located in Room 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

Beginning with the Fall Semester through the Spring Semester the cafeteria provides a variety of menu options including a Subway Station, a Nathan's Station, a Hershey Station, a Bakery Concept Station, a Jersey Farm Fresh Station, and a Vegan/Vegetarian Station. Food Service is available in four locations at the College. The main cafeteria is located on the second floor of the Pitkin Education Center. Dunkin Donuts and the Pizzeria are located on the first floor adjacent to the Student Center. There is another small snack bar area in Ender H all. Hours of operation are detailed below:

## Main Cafeteria:

| M onday - Thursday | 7:30 a.m. to 8:30 p.m. |
| :--- | :--- |
| Friday | 7:30 a.m. to 3:00 p.m. |
| Saturday | Closed |

## Dunkin Donuts:

M onday - Friday $\quad$ 7:30 a.m. to 8:30 p.m.
Saturday

7:30 a.m. to 2:00 p.m.

## Pizzeria:

M onday - Friday $\quad$ 7:30 a.m. to 8:30 p.m.
Saturday
7:30 a.m. to 2:00 p.m.

## Ender Hall:

M onday - Thursday
Friday
Saturday

7:30 a.m. to 8:30 p.m.
7:30 a.m. to 3:00 p.m. Closed

During Summer Sessions and when classes are not in session, all food service outlets observe reduced hours of operation and offerings. Additionally, when the College is closed on Fridays during the summer, there will be no food service on Fridays.

## Office of Health Services

The Office of Health Services, located in Room HS-100, 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 telephone number is 201-447-9257 and fax number is 201-447-0327. M ore information about the H ealth Services can be obtained from the Bergen Web site at: http://www.bergen.edu/sservices/health.asp.

Students, at the time of admission, will be asked to supply pertinent health and immunization information. All students admitted to Health Professions, 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 sustained on campus, or during a college-connected activity, must be reported immediately to the College N urse or Office of Public Safety. If it is not possible to make an immediate report, a report must be made before 48 hours have elapsed.

## Office of Public Safety

The O ffice of Public Safety is located in Room L-154 and open for emergencies 24 hours a day; its telephone number is 201-4479200. 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.

## Housing

The College has no housing available.

## Office of Specialized Services

The Office of Specialized Services (R oom S-131) serves students with physical, visual, learning, hearing, and emotional disabilities. The A daptive 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 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 A ssociation (SGA) sponsor throughout the year: daytime musicians, film festivals, entertainment, and other social activities. These activities give all members of the Bergen community a chance to come together and interact.

## Veterans Services

Information and advice concerning veterans affairs and military service is available through the Office of Admissions and Registration, R oom A-129; 201-447-7997.

## Welcome Center

The Welcome Center, located in the Student Center, offers weekly tours of the Pitkin Education Center, and has a variety of brochures and pamphlets available about the College; it also has bus schedules and information about the diverse activities available at the College.

## Wellness Center

The primary function of the Bergen Community College Wellness Center (Rooms L-121B and L-122; wellness@bergen.edu; 201-612-5365) is to identify ongoing wellness needs and resources. The purpose of the Wellness Center is to promote total wellness in the College community of students, staff and faculty. It combines all the health aspects-physical, social, emotional, spiritual, and mental. The Wellness Center Committee is composed of interested students, staff, and faculty who meet to develop and present programs on current topical issues.

## COMMUNITY 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 H ackensack for public events and programs sponsored by nonprofit community groups and professional organizations. The Office of Community and Cultural Affairs, 201-447-7428, processes requests for community use of the facilities.


## Programs by D egree

Bergen Community College offers three types of degree programs: Associate in Arts (A.A.),
Associate in Science (A.S.), and
Associate in Applied Science (A.A.S.).
The academic programs at Bergen Community College are classified as transfer or career programs.

## TRANSFER (A.A.) and (A.S.) PROGRAMS

Transfer programs include a course of study that 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, Bergen has worked to simplify the transfer process by signing articulation agreements with colleges and universities in N ew Jersey and throughout the United States.

## Associate in Arts (A.A.) Degree <br> Liberal Arts

O ptions:

General Curriculum
Cinema Studies
Communication Arts
Economics
History
Literature
Philosophy

Political Science Psychology Religion
Social Sciences Sociology Women's Studies World Languages and Cultures

## Associate in Arts (A.A.) Degree

Fine and Performing Arts

```
O ptions:
    Art
    M usic Arts
    General
    Computer-Based Recording
    Theatre A rts
    General
    A cting
```

    Electronic M usic
    M usic Business
    Dance
    Technical Production
    Associate in Science (A.S.) Degree Natural Sciences or Mathematics

O ptions:
General Curriculum
Biology
M athematics
Physics

Biotechnology
Chemistry
Computer Science

## Associate in Science (A.S.) Option in Engineering Science <br> Associate in Science (A.S.) Degree <br> Professional Studies <br> Options:

General Curriculum
Broadcasting
Business Administration
Business Administration-A ccounting
Business Administration-International Trade
Business Administration- $M$ anagement
Business A dministration-M arketing
Criminal Justice
Education
Exercise Science
Information Technology
Journalism
Social Work

## CAREER (A.A.S.) PROGRAMS

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

Note: Under some circumstances, students can transfer from these programs to four-year colleges and universities.

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

Art
Computer Animation
Graphic Design/Computer Graphics

## Business Administration

A ccounting
Banking and Finance
Legal Nurse Consultant
Paralegal Studies

## Business Technologies

H otel/R estaurant/H ospitality
C atering/Banquet M anagement
H ospitality M anagement
Information Technology
N etw orking Administration
O ffice Technology
Web Development and $M$ anagement

## Health Professions

Dental Hygiene
Diagnostic M edical
M edical Office A ssistant Radiography Respiratory Therapy Veterinary Technology

## Human Services

Correctional Studies
Early Childhood Education
Law Enforcement Studies

## Industrial and design technologies

Drafting and Design Technology
Electronics Technology
General Engineering Technology
$M$ anufacturing Technology

## Nursing

Day and Evening Sequences
LPN /ADN Career M obility Track

## Science Technology

Environmental Technology
H orticulture
Science Laboratory Technology

## ONE-YEAR CERTIFICATE PROGRAMS

## Computer Aided Drafting

 (CAD)Computer Animation
Computer Graphics
Computer Science
Computer Technical
Support
Culinary Arts
Database Programming and Administration
E-Commerce:
Business Emphasis
Environmental Technology
Exercise Science
Floral Design
Grounds M anagement

Hospitality $M$ anagement
Landscaping
M edical Office Administrative A ssistant
M usic Business
M usic Technology
Office Technology
Piano Instruction/Pedagogy
Radiation Therapy Technology
Small Business M anagement
Surgical Technology
Transfer Studies: Liberal Arts
Transfer Studies: Science, Technology, and Professional Studies
U.S. Studies

Vascular Technology

## CERTIFICATES OF ACHIEVEMENT

Biotechnology
Commercial M usic Production
Environmental Technology
Finance
Geographic Information Systems (GIS)
$M$ achine Tooling
M anufacturing Design
Professional Cooking
Quality Assurance
Real Estate
Special Imaging for Radiologic Technologists
Certificates of Achievement award recognition to students who successfully complete a program of specialized courses in a specific discipline. These courses prepare a student for a specific occupation or job responsibility or encompass a specialized body of knowledge in the arts or sciences.

Certificate of Achievement programs must be betw een 12 and 18 credit hours, excluding 0 -level courses. Students are required to demonstrate proficiency in English and $M$ athematics Basic Skills according to current college policy for matriculated students. Students required to take English Basic Skills courses must enroll in the required course in their first semester. Required $M$ athematics courses must be taken only if designated as prerequisites by courses in the certificate program. Other prerequisites for specific Certificate of A chievement programs may be established by the appropriate academic disciplines.

## 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 twoyear, four-semester sequence. H ow ever, students may attend Bergen 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

M ost curricula contain general education electives that must be selected from the list on page 73. (Please refer to Courses Approved For General Education).

## 4. Course prerequisites

Some courses require prerequisites. R efer to the course descriptions 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

Bergen Community College uses Internet technologies and related media to provide more flexible ways to attend the College. All distance learning courses are the equivalent of their traditional on-campus counterparts. They cover the same subject matter, carry the same credit, and require the same degree of student effort. Students taking distance learning courses will have ready access to the faculty member by phone, e-mail, and through scheduled office hours.

## O nline courses via the Internet

Students in online courses access all course information and materials and participate in class activities online via the Internet. Online courses require that students have regular access to a computer and the Internet, are organized, and have the discipline to work independently. O nline courses may have either online or proctored tests. Proctored tests require that students come either to the Office of Testing Services on campus or to another acceptable site at which proctoring can be arranged. Individual discussions with instructors can be arranged online or during office hours on campus. Bergen has a large online program with many courses. Students can earn almost all of the credits necessary for general education requirements, nine associate degree programs, and one certificate program online. For more information and a current listing of Bergen's online courses, go to:
http://w ww.bergen.edu/dlearning.

## Partially O nline (Hybrid) C ourses

Partially online (hybrid) courses combine a mixture of campus classroom sessions with coursew ork done online via the Internet. Like online courses, these courses require that students have access to computers, are organized, and have the discipline to complete some course work independently. Students attend classes at least one session per week on campus, and, because face-toface class sessions are required, an attendance policy may be enforced. For computer requirements and other useful information, go to http://www.bergen.edu/dlearning and click on "getting started."

## Web-enhanced courses

Web-enhanced courses meet for regularly scheduled class meetings on campus. H ow ever, Web-enhanced courses provide access to some course materials and activities on the Internet. A ccess to a computer and the Internet are required for these courses, but students may obtain this access by using Bergen's student computer labs if needed.

## TeleWeb courses

TeleWeb courses enable students to earn college credits at home by viewing course videotapes, completing reading and writing assignments, and by engaging in various online learning activities. TeleW eb courses typically have three on-campus meetings. Exams may also be given on campus. A computer and access to the Internet are required for the online component of these courses. TeleW eb sections are available for a limited number of courses.

## Interactive Television (ITV) courses

Interactive television courses require regular attendance in classes taught via interactive classrooms that connect Bergen to area colleges. These classrooms are connected live via video and audio to enable students from many sites to participate in a course with the same instructor. These courses are offered through our Veterinary Technology program.

## Programs at a Glance

A.A. . . . . . . . . . Associate in Arts Cert ...Certificate
A.S. Associate in Science C.O.A. . . .Certificate of Achievement
Associate in Applied Science A.A.S.
PROGRAM .DEGREE ...CODE ..... PAGE
Art, Computer Animation A.A.S . . . . . . . . .AAS.IDT.ANIM ..... 104
Art, Graphic Design/Computer Graphics A.A.S . . . . . . . . .AAS.IDT.GRPH ..... 104
Biotechnology C.O.A ...........COA.BIO.TECH ..... 131
Business Administration, Accounting A.A.S . . . . . . . .AAS.BUS.ACCT .....  105
Business Administration, Banking and Finance A.A.S ..........AAS.BUS.BANK ..... 105
Business Administration, Legal Nurse Consultant A.A.S ..........AAS.BUS.LGL.NUR ..... 106
Business Administration, Paralegal Studies A.A.S .........AAS.BUS.PARALGL ..... 106
Business Technology, Hotel/Restaurant - Catering \& Banquet M anagement A.A.S ..........AAS.BT.HR.CATER ..... 107
Business Technology, Hotel/Restaurant - Hospitality M anagement A.A.S. .........AAS.BT.HR.HOSP .....  107
Business Technology, Information Technology A.A.S ..........AAS.BT.INFO ..... 108
Business Technology, Netw orking Administration A.A.S .............AAS.BT.NET.ADM ..... 109
Business Technology, Office Technology A.A.S .........AAS.BT.OFF.TECH ..... 109
Business Technology, Web Development and Management A.A.S. .........AAS.BT.WEB.MGMT .....  110
Commercial Music Production COA.MUSC.COMM.PROD. ..... 131
Computer Aided Drafting (CAD) Cert . . . . . . . . . .CERT.CAD ..... 123
Computer Animation *** CERT.COM P.ANIM .....  124
Computer Graphics*** Cert .............CERT.COMP.GRAPH .....  124
Computer Science ..... 123
CERT.COMP.SCI
Computer Technical Support $\downarrow$ .....  125
CERT.COMP.SUPPORT
Culinary Arts .....  125
Database Programming and Administration CERT.DB ..... 125
E-Commerce: Business Emphasis CERT.ECOMM.BUS ..... 125
Engineering Science AS.ENGIN.SCI ..... 94
Environmental Technology CERTENV.TECH ..... 126
Environmental Technology COA.ENV ..... 131
Exercise Science CERT.EXER.SC ..... 126
Finance COA.FINANCE .....  131
Fine and Performing Arts, Art AA.FPA.ART ..... 83
Fine and Performing Arts, Music Arts - General Music Arts AA.FPA.MUSC ..... 83
Fine and Performing Arts, Music Arts - Computer-Based Recording AA.FPA.MUSC.COMP ..... 84
Fine and Performing Arts, Music Arts - Electronic Music AA.FPA.MUSC.ELEC ..... 84
Fine and Performing Arts, M usic Arts - Music Business AA.FPA.MUSC.BUS ..... 85
Fine and Performing Arts, Theatre - General .AA.FPA.THTR ..... 85
Fine and Performing Arts, Theatre - Acting AA.FPA.THTR.ACT ..... 86
Fine and Performing Arts, Theatre - Dance AA.FPA.THTR.DAN ..... 86
Fine and Performing Arts, Theatre - Technical Production AA.FPA.THTR.TECH ..... 87
Floral Design CERT.FLORAL ..... 126
Geographic Information Systems COA.GIS ..... 131
Grounds Management CERT.GRND.MGT ..... 126
Health Professions, Dental Hygiene § AAS.HP.DENTL ..... 111
Health Professions, Diagnostic Medical Sonography § A.S. ..... 111
Health Professions, Health Science $\dagger$ ..... 112
Health Professions, M edical Office Assistant § A.A.S . . . . . . . . AAS.HP.M OA ..... 113
Health Professions, Radiography § A.A.S ..........AAS.HP.RAD ..... 113
Health Professions, Respiratory Therapy § A.A.S. ........AAS.HP.RESP ..... 114
Health Professions, Veterinary Technology A.A.S .......... AAS.HP.VET ..... 114
Hospitality M anagement Cert . . . . . . . . . CERT.HOSP.M GMT ..... 127
Human Services, Correctional Studies A.A.S .........AAS.HS.CORR ..... 115
Human Services, Early Childhood Education A.A.S. .........AAS.HS.EARLY.CHILD ..... 115
Human Services, Law Enforcement Studies A.A.S. ........AAS.HS.LAWENF ..... 116
Industrial and Design Technology, Drafting and Design Technology A.A.S . ........AAS.IDT.DRFT. ..... 117
Industrial and Design Technology, Electronics Technology A.A.S. . ........AAS.IDT.ELECT.TECH ..... 117
Industrial and Design Technology, General Engineering Technology A.A.S. .........AAS.IDT.ET.GEN ..... 118
Industrial and Design Technology, Manufacturing Technology A.A.S .........AAS.IDT.MFG.TECH ..... 118
Landscaping Cert . . . . . . . . . .CERT.LAND ..... 127Liberal Arts - General
§ In order to be considered for admission, you must submit the following documents: Health Professions 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 one year of study in a two-year program.

## Programs at a Glance

PROGRAM DEGREE .CODE ..... PAGE
Liberal Arts - Cinema Studies .A.A. . . . . . . . . . .AA.LA.CINST ..... 75
Liberal Arts - Communication Arts .A.A. ..............AA.LA.COM M ..... 76
Liberal Arts - Economics .A.A. . . . . . . . . . AA.LA.ECON ..... 76
Liberal Arts - History *** A.A. . . . . . . . . . .AA.LA.HIST ..... 77
Liberal Arts - Literature .A.A. . . . . . . . . . .AA.LA.LIT ..... 77
Liberal Arts - Philosophy *** .A.A. . . . . . . . . . .AA.LA.PHIL ..... 78
Liberal Arts - Political Science .A.A. . . . . . . . . . AA.LA.POLI.SCI ..... 78
Liberal Arts - Psychology .A.A. ..... 79
Liberal Arts - Religion *** A.A. . . . . . . . . . .AA.LA.REL ..... 79
Liberal Arts - Social Sciences *** .A.A. . . . . . . . . . .AA.LA.SOC.SCI ..... 80
Liberal Arts - Sociology *** .A.A. ..... 80
Liberal Arts - Women's Studies . A.A. . . . . . . . . . .AA.LA.WMST ..... 81
Liberal Arts - World Languages and Cultures .A.A. . . . . . . . . . .AA.LA.FORGN.LANG
M achine Tooling ..... C.O.A.
81
81
.COA.MACH.TOOL
.COA.MACH.TOOL ..... 131 ..... 131
M anufacturing Design C.O.A. . . . . . . . . .COA.M FTG.DESIGN ..... 132
M edical Office Administrative Assistant Cert . . . . . . . . . . CERT.M OAA ..... 127
Music Business ..... Cert
CERT.M US.BUS ..... 127
Music Technology ..... Cert
Natural Sciences or Math - General A.S. Natural Science or Math Gioral ..... 128A.S.
A.
Natural Sciences or M ath - BiotechnologyA.S
A.S
Natural Sciences or M ath - Chemistry ..... A.S.
Natural Sciences or Math - Computer ScienceA.S
Natural Sciences or M ath - M athematics
A.S
AAS
Natural Sciences or M ath - Physics
Natural Sciences or M ath - Physics
.A.A.S. . . . . . . . AAS.NURS.DAY ..... 119
89
89
.AS.NSM.GEN
.AS.NSM.GEN
89
89
.AS.NSM.BIO
.AS.NSM.BIO ..... 90
.AS.NSM.CHEM ..... 91
.AS.NSM.COM P.SCI ..... 91
Nursing - Evening $\S^{* * *}$
Nursing - Evening $\S^{* * *}$ .A.A.S. ..........AAS.NURS.EVENursing-Evening ${ }^{\text {d }}$92
A.A.S. . . . . . . AAS.NURS.M BL.DAY Nursing - LPN/ADN Career Mobility Track- Day §* $\dagger \dagger$ ..... 120Nursing - LPN/ADN Career M obility Track- Evening $\S^{* *} \dagger \dagger$A.A.S. . ........AAS.NURS.M BL.EVE
120Office TechnologyCert. ............. CERT.OFF.TECH
Piano Instruction/Pedagogy Cert. . . . . . . . . . . . . . ..... 128128
Professional Cooking C.O.A. . . . . . . . .COA.PROF.COOK
Professional Studies - General .A.S. . . . . . . . . . AS.PS.GEN ..... 96132
Professional Studies - Broadcasting .A.S. .............AS.PS.BRCAST ..... 96
Professional Studies - Business Administration *** .A.S. .............AS.PS.BUS.ADM
Professional Studies - Business Administration - Accounting .A.S . ............ AS.PS.BUS.ACCT ..... 9797
Professional Studies - Business Administration - International Trade .A.S. . . . . . . . . . AS.PS.BUS.INTL ..... 98
Professional Studies - Business Administration - M anagement *** A.S. ............AS.PS.BUS.MGMT
Professional Studies - Business Administration - Marketing *** .A.S. . . . . . . . . . .AS.PS.BUS.M KTG ..... 9998Professional Studies - Criminal Justice
Professional Studies - Education ***
.AS.PS.CRIMJ ..... 99A
A.S. . . . . . . . . AS.PS.EDUC
A.S. . . . . . . . AS.PS.EXER Professional Studies - Exercise Science ..... 100100
Professional Studies - Information Technology .AS.PS.INFO ..... 101
Professional Studies - Journalism A.S. ..............AS.PS.JOUR ..... 101
Professional Studies - Social Work ..... A.S ..... 102Quality Assurance
Radiation Therapy TechnologyC.A. ............COA.QACert . . . . . . . . . .CERT.RAD.THERAPY132
Real Estate C.O.A. . . . . . . . .COA.REAL.EST ..... 132128
Science
Science Technology - Environmental Technology .A.A.S. .........AAS.ST.ENV.TECH ..... 121
Science Technology - Horticulture .A.A.S. ...........AAS.ST.HORT ..... 122
Science Technology - Science Laboratory Technology .A.A.S. . . . . . . . AAS. . ..... 122
Small Business M anagement Cert . . . . . . . . . . .CERT.SM.BUS.M GM T ..... 129
Special Imaging for Radiologic Technologists C.O.A. . . . . . . . .COA.SPEC.IMAG.RAD ..... 132
Surgical Technology ..... Cert
.CERT.SURG
Cert Transfer Studies: Liberal Arts ..... 129
.Cert . . . . . . . . . . . .CERT.TRAN.STP.GEN Transfer Studies: Science, Technology and Professional Studies ..... 129
Cert
United States Studies *** CERT.US .....  130
.Cert Vascular Technology CERT.VAS.TECH ..... 130

- 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 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
* The day Nursing programs admit only for the fall semester.
** The evening Nursing programs admit only for the spring semester.
*** This program can also be completed online.
These programs are for practicing professionals whose experience in the field has gained them the equivalent of one year of study in a two-year program.
$\dagger \dagger$ Applicants must have a valid New Jersey LPN license.


## 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 Jersey and other states. To determine which of the following courses will meet general education requirements at New Jersey colleges or universities, see NJ Transfer (http://www.nitransfer.org). Students interested in transferring to out-of-state schools should consult the catalogs and websites of those institutions.

## I. COMMUNICATION <br> SPE111 Speech Communication <br> WRT101 English Composition I <br> WRT201 English Composition II

## II. HUMANITIES

## ARTS AND MEDIA

ART101 Introduction to Art and Visual Culture
ART102 History of Art and Visual Culture to 1400
ART103 History of Art and Visual Culture 1400 to 1900
COM 101 Mass Media of Communication
MUS101 Music Appreciation
M US107 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 World War II
HIS116 Women in American History
HIS121 Modern Asian History
HIS126 M odern African History
HIS130 Latin American History to Independence
HIS131 Latin American History since Independence
HIS144 Contemporary American Issues and Problems

## LITERATURE

LIT201 American Literature to 1880
LIT202 American Literature, 1880 to the Present
LIT203 World Literature to 1650
LIT204 World Literature 1650 to the Present

## Literature (continued)

LIT205 English Literature to 1800
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
LIT220 Social Aspects of Literature
LIT224 Topics in International Literature
LIT228 Women in Literature

## PHILOSOPHY AND RELIGION

PHR101 Introduction to Philosophy
PHR102 Contemporary Moral Issues
PHR103 Basic Logic
PHR104 Topics in Philosophy
PHR105 Professional Ethics
PHR106 Eastern Philosophy
PHR110 Introduction to Ethical Theory
PHR120 Introduction to Religion
PHR121 Religions of the World
PHR122 Women and Religion
PHR124 The Christian Scriptures
PHR125 The Hebrew Scriptures
PHR126 The Islamic Scriptures
PHR203 Intermediate Logic

## WORLD LANGUAGES AND CULTURES

LAN170 American Sign Language I
LAN270 American Sign Language II
LAN110 French I
LAN200 French II
LAN201 Intermediate French I
LAN202 Intermediate French II
LAN203 French Conversation
LAN111 German I
LAN210 German II
LAN211 Intermediate German I
LAN212 Intermediate German II
LAN213 German Conversation
LAN144 Irish I
LAN244 Irish II
LAN245 Intermediate Irish I
LAN112 Italian I
LAN220 Italian II
LAN221 Intermediate Italian I
LAN222 Intermediate Italian II
LAN223 Italian Conversation
LAN120 Japanese I
LAN260 Japanese II
LAN261 Intermediate Japanese I
LAN262 Intermediate Japanese II
LAN165 Korean I
LAN265 Korean II
LAN114 Russian I
LAN240 Russian II
LAN241 Intermediate Russian I

The development of analytical 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.

## World Languages (continued)

LAN113 Spanish I
LAN230 Spanish II
LAN231 Intermediate Spanish I
LAN232 Intermediate Spanish II
LAN233 Spanish Conversation
LAN228 Elementary Spanish for Heritage Speakers
LAN229 Intermediate Spanish for Heritage Speakers

## III. MATHEMATICS and

 COMPUTER SCIENCEMAT130 Contemporary M athematics
MAT150 Elementary Statistics
MAT155 Finite M athematics
CIS158 Introduction to Computer Science
CIS163 Computer Programming: QBASIC
CIS165 C++ Programming I
MAT180 Precalculus: College Algebra and Trigonometry
MAT223 Calculus for M anagerial and Social Sciences
MAT250 Statistical Analysis
CIS266 Computer Programming: Visual BASIC
MAT280 Calculus I
MAT281 Calculus II
MAT282 Calculus III

## IV. NATURAL SCIENCES

## 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 ${ }^{*} \dagger$
BIO209 Anatomy and Physiology II* $\dagger$
BI0130 People-Plant Relationships
BIO131 General Botany*
BIO203 General Biology II*

## CHEMISTRY

CHM 100 Introduction to Chemistry*
CHM 102 Chemistry in Context*
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*

## EARTH SCIENCE

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

## PHYSICS

PHY185 Introduction to Physics*
PHY186 General Physics I*
PHY280 Physics I*
PHY286 General Physics II*
PHY290 Physics II*
PHY291 Physics III*

## V. SOCIAL SCIENCES

## ANTHROPOLOGY

ANT100 Introduction to
Anthropology
ANT101 Cultural Anthropology

## ECONOMICS

ECO101 Macroeconomics
ECO201 Microeconomics

## GEOGRAPHY

GE0101 World Geography
GE0102 Human Geography

## POLITICAL SCIENCE

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

## PSYCHOLOGY

PSY101 General Psychology
PSY102 Abnormal Psychology
PSY106 Developmental Psychology
PSY110 Psychology of Sexuality
PSY201 Child Psychology
PSY207 Psychology of Women

## SOCIOLOGY

SOC101 Sociology
SOC103 Sociology of the Family
SOC113 Social Problems
SOC120 Sociology of Gender Roles
SOC121 Changing Roles of Women
SOC222 Ethnic and Minority Group Relations

## VI. WELLNESS and

EXERCISE SCIENCE
WEX101 Dynamics of Health and Fitness
WEX201 DHF-EXP-Aerobic Conditioning
WEX202 DHF-EXP-Body Conditioning
WEX204 DHF-EXP-Keep Young, Fit and Alive
WEX205 DHF-EXP-Swimming for Conditioning
WEX206 DHF-EXP-Weight Training
WEX208 DHF-EXP-40+Fitness

[^0]
## TRANSFER PROGRAMS

ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS
To earn the A.A. degree in Liberal Arts, a student must meet the following curriculum requirements:

| Area of Study | Credits | Courses |
| :---: | :---: | :---: |
| Communications | 9 | WRT101 English Composition I (3 cr.) WRT201 English Composition II ( 3 cr .) SPE111 Speech Communication (3 cr.) |
| Humanities | 24 | Two general education courses (6 cr.) in History (HIS) |
|  |  | Six general education courses ( 18 cr .) to be selected from the following fields, with no more than two courses ( 6 cr .) in any one field: <br> Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) Literature (LIT) <br> Philosophy and Religion (PHR) <br> World Languages and Cultures (LAN) |
| Social Sciences | 9 | Three general education courses ( 9 cr .) to be selected from the following fields, with no more than two courses ( 6 cr .) in any one field: |
|  |  | Economics (ECO) <br> Geography (GEO) <br> Political Science (POL) <br> Psychology (PSY) <br> Sociology (SOC) and Anthropology (ANT) |
| Mathematics and Computer Science | 6-8 | Two general education courses ( $6-8 \mathrm{cr}$.) in M athematics/Computer Science (MAT/CIS) |
| Natural Sciences | 8 | Two general education courses (8 cr.) to be selected from the following fields: |
|  |  | Biology (BIO) <br> Chemistry (CHM) <br> Physics (PHY) or Earth Science (ESC) |
| Wellness and Exercise Science | 3 | WEX101 Dynamics of Health and Fitness (2 cr.) WEX... Dynamics of Health and Fitness Experience ( 1 cr .) * |
| Free Electives | 6 |  |
| Diversity Requirement: | In comple der studie | Bergen General Education Program, a student must take and pass at least one course in genVestern history or thought, and/or cultural diversity.** |

[^1]
## ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS

To fulfill the preceding requirements, a student in Liberal Arts must take the general curriculum or choose an option in Cinema Studies, Communication Arts, Economics, History, Literature, Philosophy, Political Science, Psychology, Religion, Social Sciences, Sociology, Women's Studies, or World Languages and Cultures.

## GENERAL CURRICULUM CODE AA.LA.GEN

## First Semester

| HIS... | History Elective* | 3 |
| :--- | :--- | :---: |
| $\ldots \ldots$ | Humanities Elective** | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
| WRT101 | English Composition I | 3 |
|  |  | $-\frac{17}{17}$ |

## Second Semester

| HIS... | History Elective* | 3 |
| :--- | :--- | ---: |
| $\ldots \ldots$ | 3 |  |
| MAT/CIS... | Mamanities Elective** | Mathematics/Computer |
|  | Science Elective*** | 3 |
| $\ldots \ldots$ | Social Science Elective*** | 3 |
| WEX... | Dynamics of Health and |  |
| Fitness Experience*** | 1 |  |
| WRT201 | English Composition II | 3 |
|  |  | -16 |

## Third Semester

| ... | Free Electives | 3 |
| :---: | :---: | :---: |
|  | Humanities Electives** | 6 |
| ... ... | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | -16 |
| Fourth Semester |  |  |
| ... ... | Free Electives | 3 |
| ... ... | Humanities Electives** | 6 |
|  | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | 16 |

[^2]Diversity Requirement: In completing the Bergen General 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 or Social Sciences electives: ANT100; ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

## CINEMA STUDIES OPTION CODE AA.LA.CINST

## First Semester

CIN/THR... | General Education Elective in |
| :--- |
| Cinema Studies* |

HIS... History Elective** 3

MAT/CIS... | Mathematics/Computer |
| :--- |
| Science Elective*** |

SPE111 Speech Communication ..... 3
WEX101 Dynamics of Health and Fitness ..... 2
WRT101 English Composition I 3
Second Semester
$\begin{array}{lll}\text { CIN150 Special Topics in Cinema I } \\ \text {... ... Humanities Electivet } & 3 \\ \text { H }\end{array}$
MAT/CIS... Mathematics/Computer Science Elective*** ..... 3
WEX... Dynamics of Health and Fitness Experience*** ..... 1
WRT201 English Composition II ..... 3
... ... Social Science Elective $\ddagger$3
-16

## Third Semester

| HIS... | History Elective** | 3 |
| :---: | :---: | :---: |
| ... ... | Humanities Electives $\dagger$ | 6 |
| ... | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Electiveł | 3 |
|  |  | $1 \overline{6}$ |
| Fourth Semester |  |  |
| CIN250 | Special Topics in Cinema II | 3 |
|  | Humanities Electives $\dagger$ | 6 |
|  | Natural Sciences Elective*** | 4 |
|  | Social Science Electiveך | 3 |
|  |  | $1 \overline{1}$ |

* General Education Elective in Arts and Media - see page 73. Recommended: CIN140/THR140 Introduction to Cinema.
** General Education Elective in History - see page 73.
*** General Education Elective - see page 73.
$\dagger$ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73. Recommended: LIT202, LIT228, LIT220, ART101, M US110.
$\ddagger$ General Education Elective - see page 73. Recommended: ANT100, ANT101, PSY101, S0C101, POL107.


## Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS

| COMMUNICATION ARTS OPTION CODE AA.LA.COMM |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| HIS. | History Elective* | 3 |
|  | Humanities Elective** | 3 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| WRT101 | English Composition I | 3 |
|  |  | -17 |
| Second Semester |  |  |
| HIS... | History Elective* | 3 |
|  | Humanities Elective** | 3 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
| WRT201 | English Composition II | 3 |
|  | Social Science Elective*** | 3 |
|  |  | -16 |
| Third Semester |  |  |
| COM ... ... | Mass Communications Elective $\dagger$ | 3 |
| ... | Humanities Electives** | 6 |
| ... ... | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| COM ... | M ass Communications Elective $\ddagger$ | 3 |
|  | Humanities Electives** | 6 |
| ... | Natural Sciences Elective*** | 4 |
| ... | Social Science Elective*** | 3 |
|  |  | -16 |
| * General Education Elective in History - see page 73. |  |  |
| ** General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73 . |  |  |
|  |  |  |
| $\dagger$ COM101 Mass Media of Communication recommended. |  |  |
| $\ddagger$ Select any M ass Communications (COM) course. |  |  |

## Diversity Requirement Applies

## ECONOMICS OPTION CODE AA.LA.ECON

## First Semester

| ECO... | General Education Elective in |  |
| :--- | :--- | ---: |
|  | Economics* | 3 |
| HIS... | History Elective** | 3 |
| MAT/CIS... | Mathematics/Computer |  |
| SPE111 | Science Elective*** | 3 |
| WRT101 | English Communication | 3 |
|  |  | 3 |
|  |  | 15 |

## Second Semester

| ECO... | General Education Elective in |
| :--- | :--- |
|  | Economics $\dagger$ |

HIS... History Elective** ..... 3
... ... Humanities Electives $\ddagger$ ..... 6
MAT/CIS... Mathematics/Computer Science Elective*** ..... 3
WRT201 English Composition II ..... 3$-18$
Third Semester
ECO... Economics Elective ..... 3
... ... Humanities Electives $\ddagger$ ..... 6
... ... Natural Sciences Elective*** ..... 4
WEX101 Dynamics of Health \& Fitness ..... 2
Fourth Semester
ECO... Economics Elective ..... 3
... ... Humanities Electives $\ddagger$ ..... 6
WEX... Dynamics of Health \& Fitness Experience*** ..... 1
... ... Social Science Elective ..... $-17$

* See page 73. Recommended: ECO101 Macroeconomics.
** General Education Elective in History - see page 73.
*** General Education Elective - see page 73.
† See page 73. Recommended: ECO201 Microeconomics.
$\ddagger$ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
- Select any Economics course.
- General Education Electives in Anthropology, Geography, Political Science, Psychology, or Sociology - see page 73.


## Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS

## HISTORY OPTION <br> CODE AA.LA.HIST

## First Semester

| HIS... <br> MAT/CIS... | General Education Elective in History* | 3 |
| :---: | :---: | :---: |
|  | Humanities Elective** | 3 |
|  | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| WRT101 | English Composition I | 3 |
|  |  | 17 |
| Second Semester |  |  |
| HIS... | General Education Elective in History* | 3 |
|  | Humanities Elective** | 3 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
| WRT201 | English Composition II | 3 |
| ... ... | Social Science Elective*** | 3 |
|  |  | 16 |
| Third Semester |  |  |
| HIS... | History Elective $\dagger$ | 3 |
| ... | Humanities Electives** | 6 |
| ... ... | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| HIS... | History Elective $\dagger$ | 3 |
| ... ... | Humanities Electives** | 6 |
| ... ... | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | 16 |

* See page 73. Students selecting the History option are encouraged to meet with the Head of the Department of Social and Behavioral Sciences for advisement on course selection. A one-year sequence in a single field of History is recommended (HIS101-102; HIS111-112; HIS113-114; or HIS130-131).
** General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
*** General Education Elective - see page 73.
$\dagger$ Select any History course. See the Head of the Department of Social and Behavioral Sciences for advisement on course selection.


## Diversity Requirement Applies

## LITERATURE OPTION <br> CODE AA.LA.LIT

## First Semester

| HIS... | History Elective* | 3 |
| :--- | :--- | :--- |
|  | Humanities Elective** | 3 |

... ... Humanities Elective**
MAT/CIS... Mathematics/Computer
Science Elective*** 3
SPE111 Speech Communication 3
WEX101 Dynamics of Health \& Fitness 2
WRT101 English Composition I 3

Second Semester
$\begin{array}{ll}\text { LIT... } & \text { General Education Elective in } \\ \text { Literature } \dagger\end{array}$
HIS... History Elective* 3
$\begin{array}{ll}\text { MAT/CIS... } & \begin{array}{l}\text { Mathematics/Computer } \\ \text { Science Elective*** }\end{array} \\ & \end{array}$
WEX... Dynamics of Health \& Fitness Experience*** 1

WRT201 English Composition II 3
... ... Social Science Elective***
3

## Third Semester

| LIT... | General Education Elective in |
| :--- | :--- |
| Literature $\dagger$ | 3 |

... ... Humanities Electives** ..... 6

... ... Natural Sciences Elective*** ..... 4
... ... Social Science Elective***$-\frac{3}{-16}$

Fourth Semester

LIT... Literature Electives $\ddagger$ ..... 6
... ... Humanities Elective** ..... 3
... ... Natural Sciences Elective*** ..... 4
... ... Social Science Elective*** ..... 3
-16

* General Education Elective in History - see page 73.
** General Education Electives in Arts and Media, Philosophy and Religion, or World Languages - see page 73.
*** General Education Elective - see page 73.
$\dagger$ See page 73.
$\ddagger$ Select any two Literature courses.


## Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS

## PHILOSOPHY OPTION <br> CODE AA.LA.PHIL

## First Semester

| PHR... | General Education Elective in |  |
| :---: | :---: | :---: |
|  | Philosophy* | 3 |
| HIS... <br> MAT/CIS... | History Elective** | 3 |
|  | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| WRT101 | English Composition I | 3 |
|  |  | -17 |
| Second Semester |  |  |
| PHR... | General Education Elective in |  |
|  | Philosophyt | 3 |
| HIS... | History Elective** | 3 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
| WRT201 | English Composition II | 3 |
| ... ... | Social Science Elective*** | 3 |
|  |  | -16 |
| Third Semester |  |  |
| PHR... | Philosophy Elective $\ddagger$ | 3 |
| ... ... | Humanities Electives | 6 |
| ... ... | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | -16 |
| Fourth Semester |  |  |
| PHR... | Philosophy Elective $\ddagger$ | 3 |
| ... ... | Humanities Electives | 6 |
|  | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | -16 |

* See page 73. Recommended: PHR101 Introduction to Philosophy.
** General Education Elective in History - see page 73.
*** General Education Elective - see page 73.
† See page 73. Recommended: PHR103 Basic Logic.
$\ddagger$ Select any Philosophy course.
- General Education Electives in Arts and Media, Literature, or World Languages - see page 73.


## Diversity Requirement Applies

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

## First Semester

| POL... | General Education Elective in |
| :--- | :--- |
|  | Political Science* |

HIS... History Elective** 3
$\begin{array}{ll}\text { MAT/CIS... } & \begin{array}{l}\text { Mathematics/Computer } \\ \text { Science Elective*** }\end{array} \\ & \text { Sper }\end{array}$
SPE111 Speech Communication 3
WRT101 English Composition I 3

Second Semester
$\begin{array}{ll}\text { POL... } & \text { General Education Elective in } \\ \text { Political Science* }\end{array}$
HIS... History Elective** 3
... ... Humanities Electives $\dagger$ 6
$\begin{array}{ll}\text { MAT/CIS... } & \text { M athematics/Computer } \\ \text { Science Elective*** }\end{array}$
WRT201 English Composition II 3

Third Semester
POL... Political Science Elective $\ddagger$ 3
... ... Humanities Electivest 6
... ... Natural Sciences Elective 4
WEX101 Dynamics of Health \& Fitness 2

Fourth Semester
POL... Political Science Elective $\ddagger$ 3
... ... Humanities Electives $\dagger$ 6
... ... Natural Sciences Elective 4
WEX... Dynamics of Health \& Fitness Exp $\quad 1$
... ... Social Science Elective $\bullet$ 3

* See page 73. Recommended: POL101 American Government or POL107 Introduction to Politics.
** General Education Elective in History - see page 73.
*** General Education Elective in Mathematics/Computer Science - see page 73. Recommended: MAT150 Elementary Statistics.
$\dagger$ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
$\ddagger$ Select any Political Science course.
- General Education Elective - see page 73.
- General Education Elective in Anthropology, Economics, Geography, Psychology, or Sociology - see page 73.

Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS

## PSYCHOLOGY OPTION CODE AA.LA.PSY

## First Semester

| PSY... | General Education Elective in |  |
| :--- | :--- | ---: |
|  | Psychology* | 3 |
| HIS.... | History Elective** | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
|  |  | -15 |

## Second Semester

| PSY... | General Education Elective in Psychologyt | 3 |
| :---: | :---: | :---: |
| HIS... | History Elective** | 3 |
|  | Humanities Electives $\ddagger$ | 6 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective*** | 3 |
| WRT201 | English Composition II | 3 |
|  |  | -18 |
| Third Sem |  |  |
| PSY... | Psychology Elective | 3 |
|  | Humanities Electives $\ddagger$ | 6 |
|  | Natural Sciences Elective*** | 4 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
|  |  | -15 |
| Fourth Sem | ester |  |
| PSY... | Psychology Elective | 3 |
|  | Humanities Electives $\ddagger$ | 6 |
|  | Natural Sciences Elective*** | 4 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
| ... ... | Social Science Elective ${ }^{*}$ | 3 |
|  |  | -17 |

[^3]
## Diversity Requirement Applies

## RELIGION OPTION

 CODE AA.LA.REL
## First Semester

| PHR... | General Education Elective in <br> Religion* |
| :--- | :--- |

HIS... History Elective** ..... 3
MAT/CIS... Mathematics/Computer Science Elective*** ..... 3
SPE111 Speech Communication ..... 3
WEX101 Dynamics of Health \& Fitness ..... 2
WRT101 English Composition I ..... 3
-17
Second Semester
PHR... General Education Elective in Religiont ..... 3
HIS... History Elective** ..... 3
MAT/CIS... Mathematics/Computer Science Elective*** ..... 3
WEX... Dynamics of Health \& Fitness Experience*** ..... 1
WRT201 English Composition II ..... 3
... ... Social Science Elective*** ..... 3
Third Semester
PHR... Religion Elective $\ddagger$ ..... 3
... ... Humanities Electives ..... 6
... ... Natural Sciences Elective*** ..... 4
... ... Social Science Elective*** ..... 3
Fourth Semester
PHR... Religion Elective $\ddagger$ ..... 3
... ... Humanities Electives ..... 6
... ... Natural Sciences Elective*** ..... 4
... ... Social Science Elective*** ..... $-16$

[^4]
## Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS

## SOCIAL SCIENCES OPTION <br> CODE AA,LA.SOC.SCI

First Semester

| $\ldots . . . .$. | General Education Elective in |  |
| :--- | :--- | ---: |
|  | Social Sciences* | 3 |
| HIS... | History Elective** | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
|  |  | -15 |

## Second Semester

| $\ldots . . .$. | General Education Elective in |  |
| :--- | :--- | :---: |
|  | Social Sciences* | 3 |
| HIS... | History Elective** | 3 |
| $\ldots . .$. | Humanities Electives $\dagger$ | 6 |
| MAT/CIS... | Mathematics/Computer |  |
| WRT201 | Science Elective*** | English Composition II |

## Third Semester

| $\ldots . .$. | General Education Elective in |  |
| :--- | :--- | :---: |
|  | Social Sciences* |  |
| $\ldots \ldots$ | Humanities Electives $\dagger$ | 3 |
| $\ldots \ldots$ | Natural Sciences Elective*** | 6 |
| WEX101 | Dynamics of Health \& Fitness | 4 |
|  |  | 2 |
|  |  | 15 |
| Fourth | Semester |  |
| $\ldots . .$. | Social Science Electives $\ddagger$ |  |
| $\ldots . .$. | Humanities Electives $\dagger$ | 6 |
| $\ldots \ldots$ | Natural Sciences Elective*** | 6 |
| WEX... | Dynamics of Health \& Fitness | 4 |
|  | Experience*** |  |
|  |  | 1 |
|  |  | -17 |

[^5]
## Diversity Requirement Applies

## SOCIOLOGY OPTION

 CODE AA.LA.SOC
## First Semester

| SOC... | General Education Elective in |
| :--- | :--- |
|  | Sociology* |

HIS... History Elective** 3
MAT/CIS... $\begin{aligned} & \text { Mathematics/Computer } \\ & \text { Science Elective*** }\end{aligned}$
SPE111 Speech Communication 3
WRT101 English Composition I

## Second Semester

SOC... General Education Elective in
Sociologyt ..... 3
HIS... History Elective** ..... 3
...... Humanities Electives $\ddagger$ ..... 6
MAT/CIS... Mathematics/Computer Science Elective*** ..... 3
WRT201 English Composition II ..... 3
-18
Third Semester
SOC... Sociology Elective ..... 3
... ... Humanities Electives $\ddagger$ ..... 6
... ... Natural Sciences Elective*** ..... 4
WEX101 Dynamics of Health \& Fitness ..... 2$-15$
Fourth Semester
SOC... Sociology Elective ..... 3
... ... Humanities Electives $\ddagger$ ..... 6
...... Natural Sciences Elective***
Dynamics of Health \& Fitness Experience*** ..... 1
Social Science Elective ..... 3
-17

[^6]
## Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN LIBERAL ARTS

| WOMEN'S STUDIES OPTION CODE AA.LA.WMST |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| HIS... | History Elective* | 3 |
|  | Humanities Elective** | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| WRT101 | English Composition I | 3 |
|  |  | 17 |
| Second Semester |  |  |
| HIS... | History Elective* | 3 |
|  | Humanities Elective** | 3 |
|  | Social Science Elective $\dagger$ | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective*** | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
| WRT201 | English Composition II |  |
|  |  | $1 \overline{16}$ |
| Third Semester |  |  |
|  | Women's Studies Elective $\ddagger$ | 3 |
|  | Humanities Electives** | 6 |
|  | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective | 3 |
|  |  | $1 \overline{6}$ |
| Fourth Semester |  |  |
| ... ... | Women's Studies Elective $\ddagger$ | 3 |
| ... ... | Humanities Electives** | 6 |
|  | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | $1 \overline{6}$ |
| * General Education Elective in History - see page 73. <br> Recommended: HIS105 Women in History or HIS116 Women in American History <br> ** General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73. <br> Recommended: PHR122 Women and Religion or LIT228 Women in Literature. <br> *** General Education Elective - see page 73. <br> $\dagger$ General Education Elective in Social Sciences - see page 73. <br> Recommended: SOC120 Sociology of Gender Roles or SOC121 Changing Roles of Women. <br> $\ddagger$ Select from the following: PSY207 Psychology of Women; SOC120 Sociology of Gender Roles; SOC121 Changing Roles of Women; LIT228 Women in Literature. <br> - General Education Elective in Social Sciences - see page 73. Recommended: PSY101 General Psychology. |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Diversity Requirement Applies

## WORLD LANGUAGES AND CULTURES OPTION CODE AA,LA.FORGN,LAN

| First Semester |  |  |
| :---: | :---: | :---: |
| LAN... | General Education Elective in |  |
|  | World Languages* | 3 |
| HIS... | History Elective** | 3 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| WRT101 | English Composition I | 3 |
|  |  | -17 |
| Second Semester |  |  |
| LAN... | General Education Elective in |  |
|  | World Languages* | 3 |
| HIS... | History Elective** | 3 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective*** | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
| WRT201 | English Composition II | 3 |
| ... | Social Science Elective*** |  |
|  |  | -16 |
| Third Semester |  |  |
| LAN... | World Languages Elective $\dagger$ | 3 |
| ... ... | Humanities Electives $\ddagger$ | 6 |
| ... ... | Natural Sciences Elective*** | 4 |
|  | Social Science Elective ${ }^{* * *}$ | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| LAN... | World Languages Elective $\dagger$ | 3 |
| ... ... | Humanities Electives $\ddagger$ | 6 |
| ... ... | Natural Sciences Elective*** | 4 |
| ... ... | Social Science Elective*** | 3 |
|  |  | 16 |

* See page 73. Students selecting the World Languages option must meet with the World Languages and Cultures Program Coordinator for placement and course selection advisement. Proper placement is critical.
** General Education Elective in History - see page 73.
*** General Education Elective - see page 73.
$\dagger$ Intermediate or Advanced level language courses depending on initial placement. See the World Languages and Cultures Program Coordinator for advisement on course selection.
$\ddagger$ General Education Electives in Arts and M edia, Literature, or Philosophy and Religion - see page 73.


## Diversity Requirement Applies

## TRANSFER PROGRAMS

ASSOCIATE IN ARTS (A.A.) DEGREE IN FINE \& PERFORMING ARTS
To earn the A.A. degree in Fine and Performing Arts, a student must meet the following curriculum requirements:

| Area of Study | Credits | Course |
| :---: | :---: | :---: |
| Communications | 9 | WRT101 English Composition I (3 cr.) WRT201 English Composition II (3 cr.) SPE111 Speech Communication (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> Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) <br> Literature (LIT) <br> Philosophy and Religion (PHR) <br> World Languages and Cultures (LAN) |
| 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 and Computer Science | 3-4 | One general education course (3-4 cr.) in M athematics/Computer Science (MAT/CIS) |
| 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 | WEX101 Dynamics of Health and Fitness (2 cr.) WEX... Dynamics of Health and Fitness Experience ( 1 cr .) * |
| Restricted Courses | 18-20 |  |
| Diversity Requirement: | In completing the Bergen General 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 one of the followi <br> ** Choose at least one of the PHR121; PHR122; PSY207; | WEX201, WE <br> C120; $\mathrm{SOC1} 2$ | 204, WEX205, WEX206, WEX208. <br> ; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; |

## ASSOCIATE IN ARTS (A.A.) DEGREE IN FINE \& PERFORMING ARTS

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

## ART OPTION <br> CODE AA.FPA.ART

## First Semester

| ART123 | Life Drawing I |  |
| :--- | :--- | :---: |
|  | or | 3 |
| ART124 | Drawing Fundamentals |  |
| ART122 | Two-Dimensional Design | 3 |
| ART126 | Introduction to Computer |  |
|  | Graphics* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
|  |  | -17 |

## Second Semester

| ART227 | Painting I | 3 |
| :--- | :--- | ---: |
| $\ldots . .$. | Humanities Electives** $\dagger$ | 6 |
| MAT/CIS... | Mathematics/Computer |  |
| WRT201 | Science Elective*** | 3 |
| WEX... | English Composition II | 3 |
|  | Experience*** |  |
|  |  | 1 |
|  |  | -16 |

## Third Semester

| ART... | Studio Art Elective $\ddagger$ | 3 |
| :--- | :--- | :---: |
| HIS... | History Elective | 3 |
| $\ldots . . .$. | Humanities Elective** $\dagger$ | 3 |
| $\ldots . .$. | Natural Sciences Elective*** | 4 |
| $\ldots . .$. | Social Science Elective*** | 3 |
|  |  | -16 |

## Fourth Semester

| ART... | Studio Art Elective $\ddagger$ | 3 |
| :--- | :--- | :---: |
| HIS... | History Elective | 3 |
| $\ldots . .$. | Humanities Electives** | 6 |
| .... | Social Science Elective*** | 3 |
|  |  | -15 |

* Course uses M acintosh computers
** General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
*** General Education Elective - see page 73.
$\dagger$ Recommended: ART101 Art Appreciation; ART102 Art History Through the Renaissance; ART103 Art History Since the Renaissance.
$\ddagger$ "Studio Art" electives do not include Art Appreciation or Art History. Recommended: ART181 Photo I, ART281 Photo II
- General Education Elective in History - see page 73

MUSIC ARTS - GENERAL MUSIC ARTS OPTION
CODE AA.FPA.MUSC

| First Semester |  |  |
| :---: | :---: | :---: |
| MUS131 | Class Piano I | 2 |
| MUS... | Music Elective | 3 |
|  | Social Science Elective* |  |
| SPE111 | Speech Communication |  |
| WRT101 | English Composition I | 3 |
| . | Humanities Elective** $\dagger$ | 3 |
|  |  | 17 |
| Second Semester |  |  |
| M US231 | Class Piano II | 2 |
| MUS... | Music Elective |  |
| WRT201 | English Composition II | 3 |
|  | Humanities Elective** $\dagger$ | 3 |
| M AT/CIS... | M athematics/Computer |  |
|  | Science Elective* | 3 |
| ...... | Social Science Elective* | 3 |
|  |  | 17 |
| Third Semester |  |  |
| MUS132 | Music Theory I | 2 |
| M US107 | Music History I | 3 |
| HIS... | History Elective*** | 3 |
| ...... | Humanities Elective** | 3 |
|  | Natural Sciences Elective* | 4 |
| WEX101 | Dynamics of Health and Fitness | 2 |
|  |  | 17 |
| Fourth Semester |  |  |
| MUS232 | Music Theory II | 2 |
| M US108 | Music History II | 3 |
| HIS... | History Elective*** | 3 |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience* | 1 |
| ...... | Humanities Electives** | 6 |
|  |  | 15 |

* General Education Elective - see page 73.
** General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
*** General Education Elective in History - see page 73.
$\dagger$ Recommended: MUS101 Music Appreciation; MUS110 Music, Art, and Drama; THR101 Introduction to Theatre


## Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN FINE \& PERFORMING ARTS

## MUSIC ARTS - COMPUTER-BASED RECORDING OPTION CODE AA.FPA.MUSC.COMP

| First Semester |  |  |
| :---: | :---: | :---: |
| MUS131 | Class Piano I | 2 |
| MUS151 | Computer-Based Recording I | 3 |
| $\ldots$ | Social Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ...... | Humanities Elective**† | 3 |
|  |  | 17 |
| Second Semester |  |  |
| MUS231 | Class Piano II | 2 |
| MUS251 | Computer-Based Recording II | 3 |
| WRT201 | English Composition II | 3 |
|  | Humanities Elective** $\dagger$ | 3 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective* | 3 |
|  | Social Science Elective* | 3 |
| ...... |  | 17 |
| Third Semester |  |  |
| MUS132 | M usic Theory I | 2 |
| MUS107 | M usic History I | 3 |
| HIS... | History Elective*** | 3 |
| ...... | Humanities Elective** | 3 |
|  | Natural Sciences Elective* | 4 |
| WEX101 | Dynamics of Health and Fitness | 2 |
|  |  | 17 |
| Fourth Semester |  |  |
| MUS232 | Music Theory II | 2 |
| MUS108 | M usic History II | 3 |
| HIS... | History Elective*** | 3 |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience* | 1 |
| ...... | Humanities Electives** | 6 |
|  |  | 15 |

* General Education Elective - see page 73.
** General Education Elective in Arts and M edia, Literature, Philosophy and Religion, or World Languages - see page 73.
*** General Education Elective in History - see page 73.
$\dagger$ Recommended: M US101 M usic Appreciation; M US110 M usic, Art, and Drama; THR101 Introduction to Theatre


## Diversity Requirement Applies

MUSIC ARTS - ELECTRONIC MUSIC OPTION CODE AA.FPA.MUSC.ELEC

| First Semester |  |  |
| :---: | :---: | :---: |
| MUS131 | Class Piano I | 2 |
| MUS150 | Electronic Music I | 3 |
|  | Social Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ...... | Humanities Elective** $\dagger$ | 3 |
|  |  | 17 |
| Second Semester |  |  |
| MUS231 | Class Piano II | 2 |
| MUS250 | Electronic Music II | 3 |
| WRT201 | English Composition II | 3 |
|  | Humanities Elective** $\dagger$ | 3 |
| MAT/CIS.. | Mathematics/Computer |  |
|  | Science Elective* | 3 |
| ...... | Social Science Elective* | 3 |
|  |  | -17 |
| Third 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 and Fitness | 2 |
|  |  | -17 |
| Fourth Semester |  |  |
| MUS232 | Music Theory II | 2 |
| M US108 | Music History II | 3 |
| HIS... | History Elective*** | 3 |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience* | 1 |
| ...... | Humanities Electives** | 6 |
|  |  | 15 |

*General Education Elective - see page 73.
** General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
*** General Education Elective in History - see page 73.
$\dagger$ Recommended: MUS101 Music Appreciation; MUS110 Music, Art, and Drama; THR101 introduction to Theatre

## Diversity Requirement Applies

## ASSOCIATE IN ARTS (A.A.) DEGREE IN FINE \& PERFORMING ARTS

| MUSIC ARTS - MUSIC BUSINESS OPTION CODE AA.FPA.MUSC.BUS |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| MUS131 | Class Piano I | 2 |
| MUS152 | Music Business I | 3 |
|  | Social Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
|  | Humanities Elective** $\dagger$ | 3 |
|  |  | -17 |
| Second Semester |  |  |
| MUS231 | Class Piano II | 2 |
| MUS252 | Music Business II | 3 |
| WRT201 | English Composition II | 3 |
|  | Humanities Elective** $\dagger$ | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective* | 3 |
| ...... | Social Science Elective* | 3 |
|  |  | -17 |
| Third 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 and Fitness | 2 |
|  |  | -17 |
| Fourth Semester |  |  |
| MUS232 | Music Theory II | 2 |
| MUS108 | Music History II | 3 |
| HIS... | History Elective*** | 3 |
| WEX.. | Dynamics of Health and |  |
|  | Fitness Experience* | 1 |
| ... | Humanities Electives** | 6 |
|  |  | $\overline{-15}$ |
| *General Education Elective - see page 73. <br> ** General Education Elective in Arts and M edia, Literature, Philosophy and <br> Religion, or World Languages - see page 73 . <br> *** General Education Elective in History - see page 73. <br> $\dagger$ Recommended: M US101 Music Appreciation; MUS110 Music, Art, and Drama; THR101 Introduction to Theatre |  |  |
| Diversity Requirement Applies |  |  |

## THEATRE ARTS - GENERAL THEATRE ARTS OPTION CODE AA.FPA.THTR

First Semester

| $\ldots . .$. | Humanities Elective* $\dagger$ | 3 |
| :--- | :--- | ---: |
| SPE111 | Speech Communication | 3 |
| THR110 | Basic Acting Techniques | 3 |
| THR131 | Introduction to Stagecraft and Lighting | 3 |
| WRT101 | English Composition I | 3 |
|  |  | -15 |
| Second Semester |  |  |


|  | Humanities Elective* $\dagger$ | 3 |
| :--- | :--- | :--- |
| MAT/CIS... | Mathematics/Computer <br>  <br>  <br> Science Elective** | 3 |
| $\ldots . .$. | 3 |  |
| THR120 | Social Science Elective** <br> THR113 | Stage Makeup |
|  | or | 1 |
| THR210 | Scenent for the Performing Artist | 2 |
|  | or | 3 |
| THR124 | Dance Experience |  |
|  | or | 3 |
| COM 106 | TV Production |  |
| WRT201 | English Composition II | 3 |
|  |  | 3 |

Third Semester
HIS... History Elective*** 3
...... Humanities Electives* 6
...... Natural Sciences Elective** 4
THR117 Theatre Performance and Production 2
COM 105 Radio Production 3
DAN... Dance Technique Classes $\ddagger$ 1
WEX101 Dynamics of Health and Fitness 2

Fourth Semester
HIS... History Elective*** 3
...... Humanities Elective* 3
...... Social Science Elective** 3
THR116 Theatre Production Workshop 4
THR114 Audition Techniques 2
THR136 Stage Electrics 3
DAN... $\quad \stackrel{\text { Dance Technique Classes }}{ } \quad 2$

WEX... Dynamics of Health and Fitness Experience** 1 16-17

[^7] each semester.

## Diversity Requirement Applies

ASSOCIATE IN ARTS (A.A.) DEGREE IN FINE \& PERFORMING ARTS

| THEATRE ARTS - ACTING OPTION CODE AA.FPA.THTR.ACT |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
|  | Humanities Elective* $\dagger$ | 3 |
| SPE111 | Speech Communication | 3 |
| THR110 | Basic Acting Techniques | 3 |
| THR131 | Introduction to Stagecraft and Lighting | 3 |
| WRT101 | English Composition I | 3 |
|  |  | 15 |
| Second Semester |  |  |
|  | Humanities Elective* $\dagger$ | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective** | 3 |
| THR113 | M ovement for the Performing Artist | 2 |
| THR120 | Stage Makeup | 1 |
| THR210 | Scene Study | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
| WRT201 | English Composition II | 3 |
|  |  | 17 |
| Third Semester |  |  |
| HIS... | History Elective*** | 3 |
|  | Humanities Electives* | 6 |
|  | Natural Sciences Elective** | 4 |
| THR117 | Theatre Performance and Production | 2 |
| WEX... | Dynamics of Health and Fitness |  |
|  | Experience** | 1 |
|  |  | $1 \overline{16}$ |
| Fourth Semester |  |  |
| HIS... | History Elective*** | 3 |
|  | Humanities Elective* | 3 |
|  | Social Science Electives** | 6 |
| THR116 | Theatre Production Workshop | 4 |
| THR114 | Audition Techniques | 2 |
|  |  | 18 |
| * General Education Elective in Arts and Media, Literature, Philosophy and <br> Religion, or World Languages - see page 73. <br> ** General Education Elective - see page 73. <br> ${ }^{* * *}$ General Education Elective in History - see page 73. <br> $\dagger$ Recommended: THR101 Introduction to Theatre; MUS110 M usic, Art, and Drama; THR140 Introduction to Cinema |  |  |
|  |  |  |

Diversity Requirement Applies

## THEATRE ARTS - DANCE OPTION CODE AA.FPA.THTR.DAN

First Semester
..... Humanities Elective* $\dagger$ 3
SPE111 Speech Communication 3

THR110 Basic Acting Techniques 3
THR131 Introduction to Stagecraft and Lighting 3
WRT101 English Composition I 3

Second Semester
...... Humanities Elective* $\dagger$ 3
MAT/CIS... M athematics/Computer Science Elective** 3
...... Social Science Elective** 3
THR113 M ovement for the Performing Artist 2
THR120 Stage Makeup 1
THR124 Dance Experience 3
WRT201 English Composition II 3

Third Semester
HIS... History Elective ${ }^{* * *} 3$
...... Humanities Electives* 6
...... Natural Sciences Elective** 4
THR117 Theatre Performance and Production 2
WEX101 Dynamics of Health and Fitness 2

Fourth Semester
DAN... Dance Technique Classes $\ddagger$ 1-2
HIS... History Elective*** 3
...... Humanities Elective* 3
...... Social Science Elective** 3
THR116 Theatre Production Workshop 4
WEX... Dynamics of Health and Fitness Experience**

* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73
** General Education Elective - see page 73.
*** General Education Elective in History - see page 73.
$\dagger$ Recommended: THR101 Introduction to Theatre; MUS110 M usic, Art, and Drama; THR140 Introduction to Cinema.
$\ddagger$ Dance Technique classes should be selected from those DAN classes offered each semester.

Diversity Requirement Applies

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

## First Semester

Humanities Elective* $\dagger$...
Speech Communication
THR110 Basic Acting Techniques 3
THR131 Introduction to Stagecraft and Lighting 3
WRT101 English Composition I 3
English Composition I $-\frac{3}{15}$
Second Semester
COM 106 TV Production 3
..... Humanities Elective* $\dagger$ 3
MAT/CIS... Mathematics/Computer
Science Elective**
Social Science Elective**
THR120 Stage Makeup
WRT201 English Composition II 3 $1 \overline{6}$

Third Semester
HIS... History Elective*** 3
..... Humanities Electives* 6
.....
Natural Sciences Elective**6
4

THR117 Theatre Performance and Production 2
WEX101 Dynamics of Health and Fitness

## Fourth Semester

| HIS... | History Elective*** | 3 |
| :--- | :--- | ---: |
| $\ldots . .$. | Humanities Elective* | 3 |
| $\ldots \ldots .$. | Social Science Elective** | 3 |
| THR116 | Theatre Production Workshop | 4 |
| THR136 | Stage Electrics | 3 |
| WEX... | Dynamics of Health and Fitness |  |
|  | Experience** | 1 |
|  |  | -17 |

* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
** General Education Elective - see page 73.
*** General Education Elective in History - see page 73.
$\dagger$ Recommended: THR101 Introduction to Theatre; M US110 M usic, Art, and Drama; THR140 Introduction to Cinema.


## Diversity Requirement Applies



## TRANSFER PROGRAMS

## ASSOCIATE IN SCIENCE (A.S.) DEGREES

Associate in Science (A.S.) degree programs are designed to prepare students for transfer into bachelor's degree programs in four-year 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 (A.S.) degree:
(1) Students may pursue the A.S. 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 A.S. degree with an option in Engineering Science.
(3) Students may pursue the A.S. degree with options in Professional Studies by following a program of study in General Professional Studies, Broadcasting, Business Administration, Education, Exercise Science, Information Technology, Journalism, or Social Work.

ASSOCIATE IN SCIENCE (A.S.) DEGREE OPTIONS IN NATURAL SCIENCES OR MATHEMATICS
To earn the AS degree in Natural Sciences or Mathematics, a student must meet the following curriculum requirements:

| Area of Study | Credits | Courses |
| :---: | :---: | :---: |
| Communications | 9 | WRT101 English Composition I (3 cr.) WRT201 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 following fields: <br> Arts and Media (Art [ART], Mass Communication [COM ], Music [MUS], Theatre Arts [THR]) <br> History (HIS) <br> Literature (LIT) <br> Philosophy and Religion (PHR) <br> World Languages and Cultures (LAN) |
| 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 and Computer Science | 8 | Two general education courses (8 cr.) in M athematics/Computer Science (MAT/CIS)* |
| 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 | WEX101Dynamics of Health and Fitness (2 cr.) WEX... Dynamics of Health and Fitness Experience ( 1 cr .)** |
| Restricted Courses | 18-20 |  |
| Diversity Requirement: | In comple course in | Bergen General Education Program, a student must take and pass at least one udies, non-Western history or thought, and/or cultural diversity.*** |

[^8]
## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN SCIENCES OR MATHEMATICS

| GENERAL SCIENCE CURRICULUMCODE AS.NSM.GEN |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| WEX101 | Dynamics of Health and Fitness | 2 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective* $\dagger$ | 4 |
|  | Natural Sciences Elective in |  |
|  | Biology, Chemistry, Earth Science, or Physics* | 4 |
| SPE111WRT101 | Speech Communication | 3 |
|  | English Composition I | 3 |
|  |  | 16 |
| Second Semester |  |  |
|  | Humanities Elective* | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science 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 and Fitness |  |
|  | Experience* | 1 |
|  | Humanities Electives* | 3 |
|  | Natural Sciences |  |
|  | and/or | 8 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Electives |  |
| ... ... | Social Science Elective* | 3 |
|  |  | 15 |
| Fourth Semester |  |  |
|  | Humanities Electives* | 6 |
|  | Natural Sciences |  |
|  | and/or | 10-12 |
| MAT/CIS... | Mathematics/Computer Science Electives |  |
|  |  | -16-18 |
| *General Education Elective - see page 73. $\dagger$ M AT280 Calculus I is required for all students in the A.S. Degree in Natural Sciences and Mathematics. |  |  |
| Note: It is recommended that students select their advanced courses in the areas of Biology, Chemistry, Computer Science, Mathematics, or Physics. |  |  |
| Diversity Requirement: In completing the Bergen General 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 or Social Sciences electives: ANT100; ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LTT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222. |  |  |

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

## First Semester

BIO101 General Biology I4
WEX101 Dynamics of Health and Fitness ..... 2
MAT180 Precalculus ..... 4
SPE111 Speech Communication ..... 3
WRT101 English Composition I ..... $-\frac{3}{-16}$
Second Semester ..... 4
MAT280 Calculus I ..... 4
WRT201 English Composition II ..... 3
... ... Humanities Elective* ..... 3
... ... Social Science Elective* ..... 3
-17
Third Semester
... ... Biology Elective** ..... 4
WEX... Dynamics of Health and Fitness Experience* ..... 1
... ... Humanities Electives* ..... 3
… ... Natural Sciences Elective*** ..... 4
... ... Social Science Elective* ..... 3
-15
Fourth Semester
... ... Biology Elective** ..... 4
... ... Humanities Electives* ..... 6
... ... Natural Sciences Elective*** ..... 4
... ... Natural Sciences Elective ..... 4
MAT/CIS... Mathematics/Computer Science Elective ..... 3-4

* General Education Elective - see page 73.
** Students must choose among the following courses: BIO201, BIO202, BIO227, BIO228, BIO229.
*** CHM 140/CHM 141 General Chemistry I and CHM 240/241 General Chemistry II are recommended.


## Diversity Requirement Applies

ASSOCIATE IN SCIENCE (A.S.) DEGREE IN SCIENCES OR MATHEMATICS

## BIOTECHNOLOGY OPTION <br> CODE AS.NSM.BIO.TECH

First Semester
BIO101 General Biology I 4
CHM 140 General Chemistry I 3
CHM 141 General Chemistry Laboratory I 1
WRT101 English Composition I 3
... ... Humanities Elective* 3
... ... Social Science Elective*

Second Semester
BIO203 General Biology II 4
CHM 240 General Chemistry II 3
CHM 241 General Chemistry Laboratory II 1
MAT150 Elementary Statistics 3
WRT201 English Composition II 3
... ...
Humanities Elective*
$-\frac{3}{-17}$

4
BIO210 Introduction to Biotechnology
MAT180 Precalculus: College Algebra and Trigonometry
WEX101 Dynamics of Health and Fitness
... ... Humanities Elective*
... ... Humanities Elective*

## Fourth Semester

BIO211 Introduction to Bioinformatics
MAT280 Calculus I
SPE111 Speech Communication
... ... WEX... Dynamics of Health and Fitness Experience* Social Science Elective*

[^9]Diversity Requirement Applies


## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN SCIENCES OR MATHEMATICS

## CHEMISTRY OPTION CODE AS.NSM.CHEM

## First Semester

| CHM 140 | General Chemistry I | 3 |
| :--- | :--- | ---: |
| CHM 141 | General Chemistry I Lab | 1 |
| WEX101 | Dynamics of Health and Fitness | 2 |
| MAT280 | Calculus I | 4 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
|  |  | -16 |
|  |  |  |
| Second |  |  |
| CHM 240 | General Chemistry II |  |
| CHM 241 | General Chemistry II-Lab | 3 |
| M AT281 | Calculus II | 1 |
| WRT201 | English Composition II | 4 |
| ... ... | Humanities Elective* | 3 |
| ... ... | Social Science Elective* | 3 |
|  |  | 3 |
|  |  | --17 |

## Third Semester

| CHM 260 | Organic Chemistry I <br> WEX... | Dynamics of Health and Fitness <br> Experience* |
| :--- | :--- | :---: |
| M AT282 | Calculus III |  |
| $\ldots . .$. | Humanities Elective* | 4 |
| $\ldots .$. | Natural Sciences Elective** | 3 |
|  |  | 4 |
|  |  | -16 |

Fourth Semester

| CHM 262 | Organic Chemistry II | 4 |
| :--- | :--- | :---: |
| $\ldots \ldots$ | Humanities Electives* | 6 |
| $\ldots . .$. | Natural Sciences Elective** | 4 |
| $\ldots . .$. | Social Science Elective* | 3 |
|  |  | 17 |

[^10]
## Diversity Requirement Applies

## COMPUTER SCIENCE OPTION

CODE AS.NSM.COMPSCI
First Semester

| CIS265 | C++ Programming II | 3 |
| :--- | :--- | ---: |
| MAT280 | Calculus I | 4 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ... ... | Humanities Elective* $\dagger$ | 3 |
|  |  | -16 |

## Second Semester

| CIS288 | Discrete Mathematics for Computer |
| :--- | :--- |
|  | Science |

MAT281 Calculus II 4
WRT201 English Composition II 3
WEX101 Dynamics of Health and Fitness 2
... ... Humanities Elective* $\dagger$ 3

Third Semester
$\begin{array}{ll}\text { CIS271 } & \begin{array}{l}\text { Computer Organization and } \\ \text { Assembly Language }\end{array}\end{array}$
CIS277 Data Structures and Algorithms 3
... ... Natural Science Elective* $\ddagger$ 4
... ... Humanities Elective* $\dagger$ 3
... ... Social Science Elective* 3

Fourth Semester
CIS/MAT... Computer Science/M athematics Electives**
CIS/M AT... Computer Science/M athematics Electives**
... ... Natural Science Elective* $\ddagger$ 4
... ... Humanities Elective* $\dagger$ 3
... ... Social Science Elective* 3
WEX... Dynamics of Health and Fitness Experience*

* General Education Elective - see page 73.
** This elective requirement in Computer Science and/or Mathematics must total at least 6 credits to be selected from the following courses: CIS266, CIS278, MAT282, MAT283, MAT286, CIS287, CIS289.
$\dagger$ PHR103 Basic Logic and PHR203 Intermediate Logic are recommended as Humanities Electives.
$\ddagger$ PHY280 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.

Diversity Requirement Applies

ASSOCIATE IN SCIENCE (A.S.) DEGREE IN SCIENCES OR MATHEMATICS


## TRANSFER PROGRAMS

## ASSOCIATE IN SCIENCE (A.S.) DEGREE OPTION IN ENGINEERING SCIENCE

To earn the A.S. 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.) WRT201 English Composition II (3 cr.) |
| Humanities | 6 | Two general education courses ( 6 cr ) to be selected from the following fields: <br> Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) <br> History (HIS) <br> Literature (LIT) <br> Philosophy and Religion (PHR) <br> World Languages and Cultures (LAN) |
| 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) |
| Mathematics and Computer Science | 8 | Two general education courses (8 cr.) in M athematics/Computer Science (MAT/CIS)* |
| 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.) WEX... Dynamics of Health and Fitness Experience ( 1 cr . ${ }^{* *}$ |
| Restricted Courses | 29 |  |
| Diversity Requirement: | In completing the Bergen General Education Program, a student must take and pass at least one course in gender studies, non-Western history or thought, and/or cultural diversity.*** |  |
| * MAT280, MAT281, MAT282, and MAT283 are required of all students in the Engineering Science program. <br> ** Choose one of the following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208. <br> *** Choose at least one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222. |  |  |

ASSOCIATE IN SCIENCE (A.S.) DEGREE IN ENGINEERING SCIENCE

## ENGINEERING SCIENCE OPTION <br> CODE AS.ENGIN.SCI

First Semester
CHM 140 General Chemistry I 3
CHM 141 Gen Chemistry Laboratory I 1
DFT107 Drafting I 2
MAT280 Calculus I 4
PHY280 Physics I 4
WRT101 English Composition I
Second Semester

| CHM 240 | General Chemistry II | 3 |
| :--- | :--- | ---: |
| CHM 241 | Gen Chemistry Laboratory II | 1 |
| CIS270 | Programming for Scientific Applications | 3 |
| MAT281 | Calculus II | 4 |
| PHY290 | Physics II | 4 |
| WRT201 | English Composition II | 3 |
|  |  | -18 |

Third Semester

| M AT282 | Calculus III | 4 |
| :---: | :---: | :---: |
| PHY291 | Physics III | 4 |
|  | Humanities Elective* $\dagger$ | 3 |
|  | Social Science Elective*キ | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
|  |  | -16 |
| Fourth Semester |  |  |
| M AT283 | Differential Equations | 4 |
| PHY294 | Engineering M echanics | 4 |
| ... ... | Humanities Elective* $\dagger$ | 3 |
|  | Social Science Elective* $\ddagger$ | 3 |
| WEX... | Dynamics of Health and Fitness |  |
|  | Experience* | 1 |

* General Education Elective-see page 73.
$\dagger$ HIS101 History of Western Civilization to the Reformation and HIS102 History of Western Civilization since the Reformation are recommended.
$\ddagger$ ECO101 M acroeconomics and ECO201 Microeconomics are recommended.
Note: DFT208 may also be required to satisfy the drafting requirement of your transfer institution.


## Diversity Requirement Applies



## TRANSFER PROGRAMS

## ASSOCIATE IN SCIENCE (A.S.) DEGREE OPTIONS IN PROFESSIONAL STUDIES

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

| Area of Study | Credits | Courses |
| :---: | :---: | :---: |
| Communications | 9 | WRT101 English Composition I (3 cr.) WRT201 English Composition II (3 cr.) SPE111 Speech Communication (3 cr.) |
| Humanities | 15 | Five general education courses ( 15 cr .) to be selected from at least three of the following fields, with no more than two courses ( 6 cr .) in any one field: <br> Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR] <br> History (HIS) <br> Literature (LIT) <br> Philosophy and Religion (PHR) <br> World Languages and Cultures (LAN) |
| 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 and Computer Science | 6-8 | Two general education courses (6-8 cr.) in Mathematics/Computer Science (MAT/CIS) |
| 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 (2 cr.) WEX... Dynamics of Health and Fitness Experience ( 1 cr .)* |
| Restricted Courses | 17-19 |  |
| Diversity Requirement: | In completing the Bergen General 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 one of the follo <br> ** Choose at least one of PHR121; PHR122; PSY2 | $\begin{aligned} & \text { WEx201, } \\ & \text { Iowing: } \mathrm{AN} \\ & \mathrm{Cl20} 5 \mathrm{SO} \end{aligned}$ | 204, WEX205, WEX206, WEX208. <br> 1; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; |

ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

## GENERAL CURRICULUM CODE AS.PS.GEN

It is recommended that the student fulfill the preceding requirements in accordance with one of the following semes-ter-by-semester sequences.

## First Semester

| WEX101 | Dynamics of Health and Fitness | 2 |
| :--- | :--- | :---: |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| $\ldots . .$. | Social Science Elective* | 3 |
| .... | Elective in Professional |  |
|  | Concentration | 3 |
|  |  | -17 |

Second Semester

| WRT201 | English Composition II <br> WEX... <br> Dynamics of Health and | 3 |
| :--- | :--- | :---: |
| MAT/CIS... | Fitness Experience* <br> Mathematics/Computer <br> Science Elective* | 1 |
| $\ldots . .$. | Humanities Electives* | 3 |
| $\ldots .$. | Elective in Professional | 6 |
|  | Concentration | 3 |
|  |  | -16 |

## Third Semester

| ... ... | Natural Sciences Elective* | 4 |
| :---: | :---: | :---: |
| .. | Social Science Elective* | 3 |
| ... ... | Humanities Elective* | 3 |
| ..... | Electives in Professional |  |
|  | Concentration | 6 |
|  |  | $\overline{1} \overline{6}^{-}$ |
| Fourth Semester |  |  |
| ... | Natural Sciences Elective* | 4 |
|  | Humanities Electives* | 6 |
| ...... | Electives in Professional |  |
|  | Concentration | 6-7 |
|  |  | 16-17 |

[^11]Diversity Requirement: In completing the Bergen General 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 or Social Sciences electives: ANT100; ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

## BROADCASTING OPTION CODE AS.PS.BRCAST

First Semester
WEX101 Dynamics of Health and Fitness 2
MAT/CIS... Mathematics/Computer
Science Elective* 3
SPE111 Speech Communication 3
WRT101 English Composition I 3
COM101 Mass Media Communication 3
...... Social Science Elective* 3

Second Semester
$\begin{array}{lll}\text { WRT201 } & \text { English Composition II } & 3 \\ \text { MAT/CIS... } & \text { Mathematics/Computer } & \\ & \text { Science Elective* } & 3\end{array}$
COM 106 TV Production I 3
COM 105 Radio Production 3
... ... Humanities Electives* 6

Third Semester
COM207 TV Production II 3
COM 205 Advanced Radio Production or
COM 208 Directing for Television 3
COM211 Video Post Production
WEX... Dynamics of Health and Fitness Experience*1

... ... Humanities Elective* ..... 3

... ... Natural Sciences Elective*

4
... ... Social Science Elective* 3

Fourth Semester
COM 461 Co-op Work Experience (Media) 1
..... Humanities Electives* 6
..... Natural Sciences Elective* 4
..... Social Science Elective* 3

* General Education Elective - see page 73.

Diversity Requirement Applies

## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

## BUSINESS ADMINISTRATION OPTION <br> CODE AS.PS.BUS.ADM

| First Semester |  |  |
| :---: | :---: | :---: |
| BUS101 | Introduction to Business | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
| MAT/CIS... | M athematics/Computer |  |
|  | Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ACC110 | Financial Accounting | 3 |
|  |  | 17 |
| Second Semester |  |  |
| ACC210 | M anagerial Accounting | 3 |
| M AT/CIS... | M athematics/Computer |  |
|  | Science Elective* | 3 |
| WRT201 | English Composition II | 3 |
| ... ... | Humanities Electives** | 6 |
| ... ... | Business Administration Elective*** | 3 |
|  |  | $\overline{1} \overline{8}$ |
| Third Semester |  |  |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience** | 1 |
| ... | Business Administration Elective*** | 3 |
| ... ... | Humanities Electives** | 6 |
| ... | Natural Sciences Elective** | 4 |
| ... ... | Social Science Elective** | 3 |
|  |  | $\overline{1}$ |
| Fourth Semester |  |  |
| ... | Free Elective $\dagger$ | 3 |
| ... ... | Humanities Elective** | 3 |
|  | Natural Sciences Elective** | 4 |
| ... ... | Social Science Elective** | 3 |
|  |  | $\overline{1} \overline{3}$ |

* General Education Elective in Mathematics/Computer Science - see page 73. Before selecting your Mathematics/Computer Science electives, check the requirements of the schools you are considering for transfer. If you are uncertain about where you plan to transfer, the following courses are transferable to business programs at a number of local colleges: MAT150, MAT155, MAT180, MAT223.
** General Education Elective - see page 73.
*** Any BUS, or INF101, or BNF201.
$\dagger$ INF101 is recommended.

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

| First Semester |  |  |
| :---: | :---: | :---: |
| WEX101 | Dynamics of Health and Fitness | 2 |
| MAT/CIS | M athematics/Computer |  |
|  | Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| BUS101 | Introduction to Business | 3 |
| . | Humanities Elective** | 3 |
|  |  | $\overline{17}$ |
| Second Semester |  |  |
| ACC110 | Financial Accounting | 3 |
| WRT201 | English Composition II | 3 |
| ... ... | Natural Sciences Elective** | 4 |
| ... ... | Humanities Elective** | 3 |
| ... ... | Social Science Elective** | 3 |
|  |  | $\overline{1} \overline{6}$ |
| Third Semester |  |  |
| ACC210 | M anagerial Accounting | 3 |
| ... ... | Humanities Elective** | 3 |
| ... ... | Natural Sciences Elective** | 4 |
|  | Social Science Elective** $\dagger$ | 3 |
| M AT/CIS... | M athematics/Computer |  |
|  | Science Elective* | 3 |
|  |  | $\overline{1} \overline{6}$ |
| Fourth Semester |  |  |
| ACC202 | Intermediate Accounting I | 3 |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience** | 1 |
|  | Humanities Elective** | 6 |
| BUS... | Business Elective*** | 3 |
|  | Free Elective $\ddagger$ | 3 |
|  |  | $\overline{1} \overline{6}$ |

* General Education Elective in Mathematics/Computer Science - see page 73. Before selecting your M athematics/Computer Science electives, check the requirements of the schools you are considering for transfer. If you are uncertain about where you plan to transfer, the following courses are transferable to business programs at a number of local colleges: MAT150, MAT155, MAT180 MAT223.
** General Education Elective - see page 73.
*** Any ACC, any BUS (except BUS103), or INF101, or BNF201.
$\dagger$ ECO101 is recommended.
$\ddagger$ INF101 is recommended.
Note: Students in the career program should refer to AAS.BUS.ACCT on page 105.


## Diversity Requirement Applies

## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

| BUSINESS ADMINISTRATION-INTERNATIONAL TRADE OPTION CODE ASPSSBUS.INTL |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| BUS101 | Introduction to Business | 3 |
| $\begin{aligned} & \text { WEX101 } \\ & \text { MAT/CIS... } \end{aligned}$ | Dynamics of Health and Fitness | 2 |
|  | Mathematics/Computer |  |
|  | Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ACC110 | Financial Accounting | 3 |
|  |  | -17 |
| Second Semester |  |  |
| ACC210 | M anagerial Accounting | 3 |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective* | 3 |
| WRT201 | English Composition II | 3 |
| BUS262 | Fundamentals of International Business | 3 |
|  | Humanities Electives** | 6 |
|  |  | -18 |
| Third Semester |  |  |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience** | 1 |
|  | Business Administration Elective*** | 3 |
|  | Humanities Electives** | 6 |
|  | Natural Sciences Elective** | 4 |
| ... | Social Science Elective** | 3 |
|  |  | -17 |
| Fourth Semester |  |  |
| ... ... | Free Electivet | 3 |
| ... ... | Humanities Elective** | 3 |
| ... | Natural Sciences Elective** | 4 |
| . ... | Social Science Elective** | 3 |
|  |  | -13 |
| * General Education Elective in Mathematics/Computer Science - see page 73. Before selecting your M athematics/Computer Science electives, check the requirements of the schools you are considering for transfer. If you are uncertain about where you plan to transfer, the following courses are transferable to business programs at a number of local colleges: MAT150, MAT155, MAT180, MAT223. <br> ** General Education Elective - see page 73. <br> ** Students should select BUS202, or BUS263, or BUS264. <br> $\dagger$ Recommended - one of the following: BUS202, BUS263, BUS264, INF101. |  |  |
|  |  |  |
|  |  |  |

## Diversity Requirement Applies

BUSINESS ADMINISTRATION-MANAGEMENT OPTION CODE AS.PS.BUS.MGMT

First Semester
BUS101 Introduction to Business 3
WEX101 Dynamics of Health and Fitness 2
MAT/CIS... Mathematics/Computer
Science Elective* 3

SPE111 Speech Communication 3
WRT101 English Composition I 3
ACC110 Financial Accounting 3

Second Semester
ACC210 Managerial Accounting 3
MAT/CIS... Mathematics/Computer
Science Elective* 3
WRT201 English Composition II 3
BUS207 Principles of Business Management 3
... ... Humanities Electives** 6

Third Semester
$\begin{array}{ll}\text { WEX... } & \text { Dynamics of Health and } \\ & \text { Fitness Experience** }\end{array}$
... ... Business Administration Elective*** 3
... ... Humanities Electives** 6
... ... Natural Sciences Elective** 4
... ... Social Science Elective** 3

Fourth Semester

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

* General Education Elective in Mathematics/Computer Science - see page 73. Before selecting your M athematics/Computer Science electives, check the requirements of the schools you are considering for transfer. If you are uncertain about where you plan to transfer, the following courses are transferable to business programs at a number of local colleges: MAT150, MAT155, MAT180, MAT223.
** General Education Elective - see page 73.
*** Students should take one of the following: BUS170, BUS205, BUS208, BUS209, BUS233, BUS234, BNF201, or INF101.
$\dagger$ INF101 is recommended.


## Diversity Requirement Applies

## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

## BUSINESS ADMINISTRATION-MARKETING OPTION CODE AS.PS.BUS.MKTG

## First Semester

BUS101 Introduction to Business 3
WEX101 Dynamics of Health and Fitness 2
MAT/CIS... $\begin{aligned} & \text { Mathematics/Computer } \\ & \text { Science Elective* }\end{aligned}$
SPE111 Speech Communication 3
WRT101 English Composition I 3
ACC110 Financial Accounting 3

Second Semester

| ACC210 | Managerial Accounting | 3 |
| :--- | :--- | ---: |
| MAT/CIS... | Mathematics/Computer |  |
| Wcience Elective* | 3 |  |
| WRT201 | English Composition II | 3 |
| BUS201 | Marketing Principles | 3 |
| $\ldots . . .$. | Humanities Electives** | 6 |
|  |  | -18 |

Third Semester
WEX... Dynamics of Health and Fitness Experience** 1

| ... ... | Business Administration |  |
| :--- | :--- | ---: |
|  | Elective*** |  |
| ... ... | Humanities Electives** | 3 |
| $\ldots . .$. | Natural Sciences Elective** | 6 |
| $\ldots .$. | Social Science Elective** | 3 |
|  |  | --17 |

## Fourth Semester

| $\ldots \ldots$ | Free Elective |  |
| :--- | :--- | :---: |
| $\ldots \ldots$ | Humanities Elective** | 3 |
| $\ldots \ldots$ | Natural Sciences Elective** | 3 |
| $\ldots \ldots$ | Social Science Elective** | 3 |
| $\ldots .$. | $--13^{-}$ |  |

* General Education Elective in Mathematics/Computer Science - see page 73. Before selecting your M athematics/Computer Science electives, check the requirements of the schools you are considering for transfer. If you are uncertain about where you plan to transfer, the following courses are transferable to business programs at a number of local colleges: MAT150, MAT155, MAT180, MAT223.
** General Education Elective - see page 73.
*** Students should take one of the following: BUS202, BUS233, BUS234, BUS271, or INF101.
$\dagger$ INF101 is recommended.


## CRIMINAL JUSTICE OPTION CODE AS.PS.CRIMJ

First Semester

| CRJ101 | Introduction to Criminal Justice | 3 |
| :--- | :--- | ---: |
| CR1113 | The Juvenile Justice Process | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
| WRT101 | English Composition I | 3 |
| … ... | Humanities Elective* | 3 |
| ..... | Social Science Elective* $\ddagger$ | 3 |
|  |  | -17 |

Second Semester
CRJ109 Contemporary Issues in Policing 3
WRT201 English Composition II 3
... ... Humanities Elective* $\dagger$ 3
... ... Humanities Elective* ${ }^{+} 3$
... ... Social Science Elective* $\ddagger$ 3
WEX... Dynamics of Health \& Fitness Experience* $\frac{1}{1 \overline{1}}$
Third Semester

| CRJ 105 | Police Administration | 3 |
| :---: | :---: | :---: |
| SPE111 | Speech Communication | 3 |
| ... ... | Humanities Elective* $\dagger$ | 3 |
| ... | Natural Science Elective* | 4 |
| ... ... | Math/Computer Science Elective* | 3 |

Fourth Semester

| CR1 103 | Criminal Law | 3 |
| :--- | :--- | ---: |
| CRJ107 | Criminology | 3 |
| $\cdots \cdots$ | Natural Science Elective* | 4 |
| $\cdots \cdots$ | Math/Computer Science Elective* | 3 |
| $\cdots \cdots$ | Humanities Elective* $\dagger$ | 3 |
| $\cdots$ |  | $-\cdots$ |

* General Education Elective - see page 73.
$\dagger$ Highly recommended HIS111, HIS112, PHR103
$\ddagger$ Highly recommended SOC101, PSY101


## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

## EDUCATION OPTION CODE AS.PS, EDUC

First Semester
WEX101 Dynamics of Health and Fitness 2
MAT/CIS... Mathematics/Computer Science Elective*
SPE111 Speech Communication 3
WRT101 English Composition I 3
EDU101 Introduction to Education 3
... ... Social Science Elective* $\dagger$ 3

Second Semester

| WRT201 | English Composition II | 3 |
| :--- | :--- | :---: |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective* | 3 |
| $\ldots . .$. | Humanities Electives* | 6 |
| SOC102 | Introduction to Human Services | 3 |
|  |  | -15 |

Third Semester

| EDU103 | Principles and Practices in Education | 3 |
| :---: | :---: | :---: |
| PSY103 | Educational Psychology | 3 |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience* | 1 |
|  | Humanities Elective* | 3 |
| ... ... | Natural Sciences Elective* | 4 |
| ... ... | Social Science Elective* $\ddagger$ | 3 |
|  |  | 17 |
| Fourth Semester |  |  |
| SOC103 | Sociology of Family | 3 |
| ... ... | Free Elective | 3 |
| ... | Humanities Electives* | 6 |
| ... | Natural Sciences Elective* | 4 |
|  |  | 16 |

* General Education Elective - see page 73.
$\dagger$ PSY101 General Psychology is recommended.
$\ddagger$ SOC101 Sociology is recommended.


## Diversity Requirement Applies

## EXERCISE SCIENCE OPTION CODE AS.PS.EXER

First Semester

| WRT101 | English Composition I | 3 |
| :--- | :--- | ---: |
| SPE111 | Speech Communication | 3 |
| MAT/CIS... | Mathematics/Computer |  |
| Science Elective* | 3 |  |
| WEX159 | CPR and First Aid | 3 |
| WEX164 | Exercise Science | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
|  |  | -17 |

Second Semester

| WRT201 | English Composition II | 3 |
| :--- | :--- | ---: |
| MAT/CIS... | Mathematics/Computer |  |
|  | SCience Elective* | 3 |
| $\ldots \ldots \ldots$ | 6 |  |
| WEX182 | Humanities Electives** | Fitness M easurement |
| WEX184 | Sports Medicine I Theory and | 3 |
|  | Practice | 3 |
|  |  | -18 |

Third Semester
... ... Humanities Electives** 6
... ... Natural Sciences Elective** 4
.... ... Social Science Elective** 3
WEX106 Nutrition for Exercise 3
WEX... Dynamics of Health and Fitness Experience** $\quad 1$

Fourth Semester


* General Education Elective in Mathematics/Computer Science - see page 73. Recommended: MAT130, MAT150, or MAT155
** General Education Elective - see page 73.

Diversity Requirement Applies

## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

## INFORMATION TECHNOLOGY OPTION <br> CODE AS.PS.INFO

## First Semester

| INF101 | Introduction to Information Technology | 3 |
| :--- | :--- | :---: |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| MAT... | Mathematics Elective* $\dagger$ | 3 |
| INF... | Programming Language |  |
|  | Fundamentals** | 3 |
|  |  | -15 |

## Second Semester

| BUS101 | Introduction to Business | 3 |
| :--- | :--- | :--- |
| WEX101 | Dynamics of Health and Fitness | 2 |
| WRT201 | English Composition II | 3 |
| MAT... | Mathematics Elective* $\dagger$ | 3 |
| ..... | Humanities Elective* | 3 |
| INF... | Advanced Programming Languages*** | 3 |
|  |  |  |

## Third Semester

|  | Natural Sciences Elective* | 4 |
| :---: | :---: | :---: |
|  | Social Sciences Elective* $\ddagger$ | 3 |
|  | Humanities Electives* | 6 |
| WEX... | Wellness and Exercise Elective* | 1 |
|  | Restricted INF Elective**** | 3 |
|  |  | -17 |
| Fourth Semester |  |  |
|  | Humanities Electives* | 6 |
|  | Social Sciences Elective* $\ddagger$ | 3 |
|  | Natural Sciences Elective* | 4 |
| INF208 | Systems Analysis and Design | 3 |
|  |  | -16 |

* General Education Elective - see page 73.
** Programming Language Electives: Fundamentals INF145 Introduction to Visual Basic for Business INF152 C/C++ Programming for Business INF153 Java for Business Applications
*** Programming Language Electives: Advanced (Part 2 of continuing sequence) INF224 Advanced C/C++ Programming for Business INF246 Advanced Visual Basic for Business INF268 Advanced Java for Business Applications
**** INF Restricted Electives
Courses cannot duplicate as Restricted Electives when selected as Programming Electives
INF145 Introduction to Visual Basic for Business
INF152 C/C++ Programming for Business
INF153 Java for Business Applications
INF160 Netw ork Technologies and Data Communications iNF217 Database for Business Applications
$\dagger$ Recommended Mathematics Elective
Choose two of the following (see INF coordinator for assistance):
MAT180 Precalculus: College Algebra and Trigonometry
MAT223 Calculus for Managerial and Social Sciences
MAT280 Calculus I
$\ddagger$ Recommend ECO-101 M acroeconomics
- Class offered only during spring semester

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## JOURNALISM OPTION <br> CODE AS.PS.JOUR

## First Semester

COM 101 Mass Media of Communication 3
WEX101 Dynamics of Health and Fitness 2
MAT/CIS... $\begin{array}{ll}\text { Mathematics/Computer } \\ \text { Science Elective* }\end{array}$
SPE111 Speech Communication 3
WRT101 English Composition I 3
...... Social Science Elective* 3

WRT201 English Composition II 3
WEX... Dynamics of Health and Fitness Experience* 1
MAT/CIS... $\begin{aligned} & \text { Mathematics/Computer } \\ & \text { Science Elective* } \\ & \text { Hen }\end{aligned}$
...... Humanities Electives* 6

Third Semester
COM 201 Introduction to Journalism 3
INF115 Desktop Publishing 1
$\begin{array}{ll}\text { INF161 Internet Research and Data Handling } \\ \text {..... } & \\ \text { Humanities Elective* } \dagger\end{array}$
..... Natural Sciences Elective* 4
..... Social Science Elective* $\ddagger$ 3

Fourth Semester
COM210 Public Relations 3
COM461 Co-op Work Exp (Media) 1
..... Humanities Electives* 6
..... Natural Sciences Elective* 4
..... Free Elective* 3

* General Education Elective - see page 73.
$\dagger$ PHR102 Contemporary M oral Issues is recommended.
$\ddagger$ POL101 American Government or POL104 State and Local Government is recommended

Diversity Requirement Applies


## First Semester

| WEX101 | Dynamics of Health \& Fitness | 2 |
| :--- | :--- | ---: |
| MAT/CIS... | Mathematics/Computer |  |
|  | Science Elective*† | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| I.... | Social Science Elective $\ddagger$ | 3 |
| SOC101 | Sociology | 3 |
|  |  | -17 |

## Second Semester

WEX... Dynamics of Health \& Fitness Exp.* 1
WRT201 English Composition II 3

MAT/CIS... | Mathematics/Computer |
| :--- |
| Science Elective $\dagger$ |

…... Humanities Electives* 6
SOC102 Introduction to Human Services

## Third Semester

| $\ldots . . . .$. | Natural Science Elective* | 4 |
| :--- | :--- | ---: |
| $\ldots .$. | Social Science Elective* | 3 |
| $\ldots \ldots .$. | Humanities Elective*** | 3 |
| SOC103 | Sociology of the Family | 3 |
| SOC113 | Social Problems | 3 |
|  |  | $-\overline{16}$ |

## Fourth Semester

... ... Natural Science Elective* 4
... ... Humanities Electives* ${ }^{*}$
SOC222 Ethnic \& Minority Group Relations 3
SOC121 Changing Roles of Women
SOC463 Sociology/Social Work Co-op Work Experience

* General Education Elective - see page 73.
$\dagger$ Recommended: MAT150 Elementary Statistics.
$\ddagger$ Recommended: PSY101 General Psychology.
- Recommended: EC0101 M acroeconomics.

Recommended: LAN113 Spanish I, LAN230 Spanish II, or LAN231 Intermediate Spanish I.

## Diversity Requirement Applies

CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) DEGREES

Associate in Applied Science (A.A.S.) degree programs are designed to prepare students for employment in their chosen fields of endeavor. Note: Under a variety of circumstances, students can transfer from these programs to four-year colleges and universities.

Career programs leading to the A.A.S. degree are organized according to the following categories: Allied Health, Art, Business Administration, Business Technologies, Human Services, Industrial and Design Technologies, Nursing, and Science Technologies.

To receive the Associate in Applied Science (A.A.S.) 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 A.A.S. curriculum must contain the following general education requirements:

| Area of Study | Credits | Course |
| :---: | :---: | :---: |
| Communications | 6 | WRT101 English Composition I (3 cr.) WRT201 English Composition II (3 cr.) |
| Humanities | 6 | Two general education courses ( 6 cr .) to be selected from the following fields: <br> Arts and Media (Art [ART], Mass Communication [COM ], Music [MUS], Theatre Arts [THR]) <br> History (HIS) <br> Literature (LIT) <br> Philosophy and Religion (PHR) <br> World Languages and Cultures (LAN) |
| 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 M athematics/ Computer Science | 3-4 | One general education course ( $3-4 \mathrm{cr}$.) to be selected from the following fields: <br> Mathematics/Computer Science (MAT/CIS) <br> Biology (BIO) <br> Chemistry (CHM) <br> Physics (PHY) or Earth Science (ESC) |
| Wellness and Exercise Science | 3 | WEX101 Dynamics of Health and Fitness (2 cr.) WEX... Dynamics of Health and Fitness Experience ( 1 cr .) * |
| Restricted Courses: M inimum of 42-43 cr.** |  |  |
| Diversity Course R | dation: | It is recommended that, in completing the Bergen General Education Program, a student take and pass at least one course in gender studies, non-Western history or thought, and/or cultural diversity.*** |

[^12]CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN ART

| COMPUTER ANIMATION CODE AAS.IDT.ANIM |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| ART122 | Two-Dimensional Design | 3 |
| $\begin{aligned} & \text { ART126 } \\ & \text { ART124 } \end{aligned}$ | Introduction to Computer Graphics* | 3 |
|  | Drawing Fundamentals |  |
|  | or | 3 |
| ART123 | Life Drawing I |  |
| ART105 | History of Animation | 3 |
| WRT101 | English Composition I | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
|  |  | TT |
| Second Semester |  |  |
| ART226 | Letterform and Type | 3 |
| ART292 | Computer 3D Animation 1** | 3 |
| ART289 | Computer 2D Illustration* | 3 |
| ART297 | Computer Imaging* | 3 |
| WRT201 | English Composition II | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
|  |  | 16 |
| Third Semester |  |  |
| ART290 | Computer 2D Animation 1** | 3 |
| ART293 | Computer 3D Animation II** | 3 |
| ART260 | Graphic Design I | 3 |
| ...... | Humanities Elective*** $\dagger$ | 3 |
|  | Natural Sciences*** |  |
|  | or | 3-4 |
| MAT/CIS... | M athematics/Computer Science Elective*** |  |
|  |  | 15-1/6 |
| Fourth Semester |  |  |
| ART298 | Interactive Multimedia* | 3 |
| ART291 | Computer 2D Animation II** | 3 |
| ART271 | Portfolio Presentation | 2 |
| ART... | Studio Art Elective $\ddagger$ |  |
|  | or | 2-3 |
| ART462/463 | Co-op Work Experience |  |
| ...... | Social Science Elective*** | 3 |
| ...... | Humanities Elective*** | 3 |
|  |  | 16-17 |
| * Course uses Macintosh computers <br> ${ }_{* * *}^{* *}$ Course uses Intergraph NT in S250 multimedia lab <br> *** General Education Elective - see page 73. <br> $\dagger$ Recommended: ART101 Introduction to Art and Visual Culture, ART102 History of Art and Visual Culture to 1400, ART103 History of Art and Visual Culture 1400-1900, or MUS110 Music, Art, and Drama <br> ₹ "Studio Art" Electives do not include Art Appreciation and Art History |  |  |
|  |  |  |
|  |  |  |

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## GRAPHIC DESIGN/COMPUTER GRAPHICS <br> CODE AAS.IDT.GRPH

## First Semester

| ART122 | Two-Dimensional Design | 3 |
| :--- | :--- | ---: |
| ART126 | Introduction to Computer Graphics* | 3 |
| ART124 | Drawing Fundamentals |  |
|  | or | 3 |
| ART123 | Life Drawing I | 3 |
| WRT101 | English Composition I | 3 |
| ..... | Humanities Elective** |  |

Second 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
Third Semester
ART287 Computer Layout I* 3
ART260 Graphic Design I 3
ART... Studio Art Elective*** 3
..... Humanities Elective** $\dagger$ 3
...... $\begin{aligned} & \text { Natural Sciences** } \\ & \text { or }\end{aligned}$
MAT/CIS... Mathematics/Computer Science Elective**
WEX... Dynamics of Health \& Fitness Experience**

Fourth Semester
ART261 Graphic Design II 3
ART271 Portfolio Presentation 2
ART288 Computer Layout II* 3
ART... Studio Art Elective*** 3
ART... Studio Art Elective***
or
ART462/463 Co-op Work Experience
...... Social Science Elective**

[^13]Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (A.A.S.) 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 |
|  |  | 17 |
| Second Semester |  |  |
| ACC201 | Accounting II | 3 |
| WEX... | Dynamics of Health \& |  |
|  | Fitness Experience** | 1 |
| WRT201 | English Composition II | 3 |
|  | Social Science Elective** $\dagger$ | 3 |
| BUS233 | Business Law I | 3 |
|  | Humanities Elective** $\ddagger$ | 3 |
|  |  | -16 |
| Third Semester |  |  |
| ACC202 | Intermediate Accounting I | 3 |
| INF124 | Microcomputer Spreadsheet - Excel | 1 |
| BNF201 | Principles of Finance*** | 3 |
| SPE111 | Speech Communication | 3 |
|  | Natural Sciences ** |  |
|  | or | 3-4 |
| MAT/CIS... | M athematics/Computer Science Elective ** |  |
| BUS... | Business Elective - | 3 |
|  |  | -16-17 |
| Fourth Semester |  |  |
| ACC... | Restricted Accounting Elective ** | 3 |
| ACC204 | Cost Accounting ${ }^{* * *}$ | 3 |
|  | Humanities Elective** | 3 |
| BUS... | Business Elective $\ddagger$ | 3 |
| ACC462 | Co-op Work Exp (Accounting) | 1 |
| INF228 | Advanced Excel | 1 |
|  |  | 15 |

* The student should choose from INF101 Introduction to Information Technology or INF114 M icrosoft Office.
** General Education Elective - see page 73.
*** Specialized course that may be offered only in the evening
$\dagger$ EC0101 M acroeconomics is recommended.
$\dagger \dagger$ Class offered only during spring semester
$\ddagger$ PHR105 recommended.
- Choose any BUS course.
- Restricted Accounting Electives

ACC203 Intermediate Accounting II $* * * \dagger \dagger$
ACC107 Federal Taxation
ACC220 Peachtree Accounting/Excel Applications ***
Note: Students interested in transferring to a four-year institution should refer to AS.PS.BUS.ACCT on page 97.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## BANKING AND FINANCE

CODE AAS.BUS.BANK
First Semester
ACC101 Accounting I 3

BNF101 Principles of Banking* 3
BUS101 Introduction to Business 3
BUS103 Business Mathematics 3
WEX101 Dynamics of Health \& Fitness 2
WRT101 English Composition I 3

Second Semester
ACC201 Accounting II 3
BNF202 Asset Management** ${ }^{*} 3$
SPE111 Speech Communication 3
WEX... $\begin{gathered}\text { Dynamics of Health \& } \\ \text { Fitness Experience*** }\end{gathered}$
WRT201 English Composition II 3
...... Humanities Elective*** 3

Third Semester
BUS233 Business Law I 3
BNF201 Principles of Finance 3
BNF203 Cash Management* $\dagger$ 3
EC0101 Macroeconomics 3
...... $\begin{aligned} & \text { Natural Sciences*** } \\ & \text { or }\end{aligned}$
MAT/CIS... Mathematics/Computer Science Elective***

## Fourth Semester

| BUS234 | Business Law II | 3 |
| :---: | :---: | :---: |
| BNF102 | Personal Finance and |  |
|  | M oney M anagement | 3 |
|  |  |  |
| BUS207 | Principles of Management |  |
|  | or |  |
| BUS262 | International Business |  |
| INF101 | Introduction to Information |  |
|  | Technology | 3 |
| ...... | Free Electives | 2-3 |
| ...... | Humanities Elective*** | 3 |
|  | Social Science Elective*** | 3 |
|  |  | 17-18 |

[^14]Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN BUSINESS ADMINISTRATION

| LEGAL NURSE CONSULTANT CODE AAS.BUS.LGL.NUR |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| LGL101 | Fundamentals of Law I | 3 |
| LGL103 | Legal Research \& Writing | 3 |
| WRT101 | English Composition I | 3 |
| LGN105 | Principles of Legal Nurse Consulting | 3 |
| LGL165 | Elder Law* | 1 |
| LGL237 | Rules of Evidence* | 1 |
|  |  | -16 |
| Second Semester |  |  |
|  | Humanities Elective** $\dagger$ | 3 |
| WRT201 | English Composition II | 3 |
| LGL220 | Computer Assisted Legal Research | 3 |
| LGL203 | Paralegalism \& Legal Procedure* | 3 |
| LGN201 | Health Law* | 3 |
| LGL200 | Business Communications for Paralegals* | 3 |
|  |  | 18 |
| Third Semester |  |  |
| LGL234 | Personal Injury and Product Liability* | 3 |
| LGN204 | Medical Legal Ethics, Records and Writing* | 3 |
| LGL202 | New Jersey and Federal Courts* | 3 |
| ... ... | Humanities Elective** | 3 |
| ... ... | Natural Sciences Elective** |  |
|  |  | 3-4 |
| MAT/CIS.. | Mathematics/Computer Science Elective** |  |
|  |  | 15-1] $\overline{6}$ |
| Fourth Semester |  |  |
| LGN210 | Advanced M edical Legal Research* | 3 |
| LGN462 | Legal Nurse Internship* | 2 |
| SPE111 | Speech Communication | 3 |
| LGL207 | Wills and Administration* | 3 |
|  | Social Sciences Elective** | 3 |
| WEX... | Dynamics of Health \& Fitness Experience** | 1 |
|  |  | 15 |

[^15]Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## PARALEGAL STUDIES <br> CODE AAS.BUS.PARALGL

First Semester
WEX101 Dynamics of Health \& Fitness 2

LGL101 Fundamentals of Law 3
LGL103 Legal Research and Writing 3
WRT101 English Composition I 3
REA101 Principles of Real Estate I 3
... ... Social Science Elective* 3

Second Semester
... ... Humanities Elective* 3
LGL200 Business Communications for Paralegals $\ddagger \quad 3$
LGL203 Paralegalism and Legal Procedure $\ddagger$ 3
LGL220 Computer Assisted Legal Research 3
WRT201 English Composition II --3

Third Semester
... ... Humanities Elective* 3
LGL202 New Jersey and Federal Courts $\ddagger$ 3
LGL205 Mechanics of Property Transactions $\ddagger$ 3
LGL208 Mechanics of Family Law $\ddagger$ 3
LGL207 Wills and Administration $\ddagger \quad 3$
$\begin{array}{lll}\text {... ... Natural Science Elective* } & \\ \text { or }\end{array}$
MAT/CIS... Mathematics/Computer Science Elective*

Fourth Semester
LGL234 Personal Injury and Product Liability $\ddagger>3$
ACC207 Legal Accounting $\ddagger$ 3
SPE111 Speech Communication 3
LGL206 Mechanics of Commercial Transactions $\ddagger \quad 3$
LGL462 Co-op Work Experience (Legal Assistant) 2
... ... Dynamics of Health \& Fitness Experience* 1

* General Education Elective - see page 73.
$\ddagger$ Specialized course which may be offered only in the evening.
- PHR105 Professional Ethics is Recommended.

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Placement Test.

## Legal Nurse Consultant and Paralegal Studies Programs are approved by the American Bar Association.

[^16]CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN BUSINESS TECHNOLOGIES

## HOTEL/RESTAURANT/HOSPITALITY CODE AAS.BT.HR.CATER <br> CATERING/BANQUET MANAGEMENT OPTION

First Semester
BUS101 Introduction to Business 3
BUS103 Business Mathematics 3
HRM 101 Intro to Hospitality M anagement 3
HRM 102 Food Protection 3
HRM 106 Menu Planning \& Nutrition 1
WRT101 English Composition I 3

Second Semester
ACC206 Hospitality Accounting 3
WEX101 Dynamics of Health \& 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 Work Experience (Hotel/Restaurant/Hospitality) 2

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
.. ...

Fourth Semester
HRM 213 Classical 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*
MAT/CIS... Mathematics/Computer Science Elective*
... ... Humanities Elective*

[^17]Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test. Students who enter this program in the Spring should reverse the THIRD and FOURTH semester, that is, take the FOURTH semester before the THIRD semester.

HOTEL/RESTAURANT/HOSPITALITY CODE AAS.BT.HR.HOSP

## HOSPITALITY MANAGEMENT OPTION

## First Semester

BUS101 Introduction to Business
3

BUS103 Business Mathematics 3
HRM 101 Introduction to Hospitality Management 3
HRM 102 Food Protection 3
HRM 106 Menu Planning \& Nutrition 1
WRT101 English Composition I 3

Second Semester
ACC206 Hospitality Accounting 3
WEX101 Dynamics of Health \& 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 Work Exp (H/R/H) 2

Third Semester
WEX... Dynamics of Health \& Fitness Experience* 1
HRM 104 Front Office Procedures** 2
HRM 202 Quantity Food Production Service** 3
HRM 203 Beverage Management 2
HRM 204 Food Purchasing 2
... ... Humanities Elective* 3
... ... Social Science Elective* 3 $-16$

## Fourth Semester

BUS233 Business Law I 3
HRM 201 Food and Beverage Cost Control 1
HRM 206 Commercial Restaurant
Operation*** 3
HRM 207 Hotel Sales \& Convention Planning 1
HRM... Elective 3
... ... Natural Sciences Elective*
MAT/CIS... M athematics/Computer Science Elective*
... ... Humanities Elective*
3
$\overline{17}-1 \overline{1}$

* General Education Elective - see page 73.
** Class offered only during fall semester.
*** Class offered only during spring semester.

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test. Students who enter this program in the Spring should reverse the THIRD and FOURTH semester, that is, take the FOURTH semester before the THIRD semester.

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN BUSINESS TECHNOLOGIES

## INFORMATION TECHNOLOGY

## CODE AAS.BTINFO

## First Semester

INF101 Introduction to Information Technology 3
INF150 Business Programming Logic $\quad 3$
INF161 Internet Research and Data Handling 1
BUS101 Introduction to Business 3
WRT101 English Composition I 3
INF... Programming Language Fundamentals**

## Second Semester

INF... Advanced Programming Languages*** 3
INF114 Microsoft Office 3
INF208 Systems Analysis and Design $\bullet \quad 3$
WEX101 Dynamics of Health and Fitness 2
WRT201 English Composition II 3
...... Social Sciences Elective* $\quad-\frac{3}{17}$

## Third Semester

ACC101 Accounting I 3
$\begin{array}{ll}\text { INF160 } & \text { Netw orking Technologies and } \\ & \text { Data Communications }\end{array}$
INF217 Database for Business Applications 3
INF253 Technical Communications 3
...... Humanities Elective* 3
WEX... Wellness and Exercise Elective 1

## Fourth Semester

ACC201 Accounting II
or
BUS271 E-Commerce
INF228 Excel for Problem Solving 1
INF239 Applications Development $\bullet \quad 3$
INF... Restricted INF Elective $\dagger$ 3
... ... Natural Science Elective*
or 3-4

MAT/CIS... M athematics/Computer Science Elective* $\ddagger$
... ... Humanities Elective* 3 16-17

* General Education Elective - see page 73.
- Class offered only during fall semester.
- Class offered only during spring semester.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## **Programming Language Electives: Fundamentals

INF145 Introduction to Visual Basic for Business
INF152 C/C++ Programming for Business
INF153 Java for Business Applications
INF242 RPG/400 Programming

## *** Programming Language Electives: Advanced <br> (Part 2 of continuing sequence)

INF224 Advanced C/C++ Programming for Business
INF243 Advanced RPG/400 Programming
INF246 Advanced Visual Basic for Business
INF268 Advanced Java for Business Applications

## $\dagger$ Restricted INF Electives

Programming Language courses cannot duplicate as Restricted INF
Electives when selected as Programming Language Electives
INF145 Introduction to Visual Basic for Business
INF146 Web Development Using HTML
INF152 C/C++ Programming for Business
INF153 Java for Business Applications
INF218 Database Programming
INF224 Advanced C/C++ Programming for Business
INF240 Client-side Scripting Using JavaScript
INF246 Advanced Visual Basic for Business
INF249 Visual C++ for Windows with MFC
INF263 Server Side Internet Programming
$\ddagger$ Mathematics or Natural Science Elective
One of the following mathematics electives is strongly recommended.
MAT150 Elementary Statistics
MAT180 Precalculus: College Algebra and Trigonometry
MAT223 Calculus for Managerial and Social Sciences
MAT280 Calculus I

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN BUSINESS TECHNOLOGIES

| NETWORKING ADMINISTRATION CODE AAS.BT.NET.ADM |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| INF101 | Introduction to Information Technology | 3 |
| INF108 | PC Upgrade, M aintenance and Diagnosis | 3 |
| INF160 | Networking Technologies and |  |
|  | Data Communications | 3 |
| INF163 | Internet Concepts and Applications | 3 |
| WRT101 | English Composition I | 3 |
|  |  | 15 |
| Second Semester |  |  |
| BUS101 | Introduction to Business | 3 |
| INF114 | Microsoft Office | 3 |
| INF232 | Windows Client | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| WRT201 | English Composition II | 3 |
| ... ... | Humanities Elective* | 3 |
|  |  | 17 |
| Third Semester |  |  |
| INF252 | Windows Server | 3 |
| INF253 | Technical Communications | 3 |
| INF254 | UNIX for the Netw ork Administrator | 3 |
| INF258 | TCP/IP | 3 |
| WEX... | Wellness and Exercise Elective* |  |
| ... ... | Social Sciences Elective* |  |
|  |  | -16 |
| Fourth Semester |  |  |
| INF228 | Excel for Problem Solving | 1 |
| INF256 | Topics in Networking |  |
|  | or | 3 |
| INF219 | Database Administration |  |
| INF257 | Network Troubleshooting | 3 |
| INF267 | Netw ork Security | 3 |
| ... ... | Humanities Elective* | 3 |
|  | Natural Sciences Elective* |  |
|  | or | 3-4 |
| MAT/CIS... | Mathematics/Computer Science Elective* $\dagger$ |  |
| * General Education Elective - see page 73. <br> $\dagger$ One of the following mathematics electives is strongly recommended: |  |  |
|  |  |  |
|  | 150 Elementary Statistics |  |
| MAT155 Finite Mathematics |  |  |
| MAT280 Calculus I M Magerial and Sociar Sciences |  |  |
|  |  |  |

NOTE: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## OFFICE TECHNOLOGY <br> CODE AAS.BT.OFF.TECH

First Semester

|  |  | 3 |
| :--- | :--- | ---: |
| INF100 | Keyboarding ${ }^{*}$ | 3 |
| IN101 | Introduction to Information Technology | 3 |
| INF114 | Microsoft Office* |  |
| INF144 | Windows Desktop Operations |  |
|  | or | 1 |
| INF165 | Introduction to Linux | 3 |
| BUS101 | Introduction to Business | 3 |
| WRT101 | English Composition I | $-\overline{1} \bar{\sigma}^{-}$ |

## Second Semester

INF119 Document Processing with M icrosoft Word 3
INF140 Introduction to Multimediat 3
INF146 Web Development Using HTML 3
BUS103 Business Mathematics 3
BUS105 Business Communications 3
WEX101 Dynamics of Health \& Fitness 2

Third Semester
ACC120 Computerized Accounting 3
INF217 Database for Business Applications 3
WEX... Wellness and Exercise Elective** 1
WRT201 English Composition II 3
... ... Humanities Elective** 3
... ... Natural Sciences**
MATCIS or ${ }^{\text {a }}$
MAT/CIS Mathematics/Computer Science Elective**
1 $\overline{6}-1 \overline{1} \overline{7}$
Fourth Semester

| INF214 | Administrative Simulationt | 2 |
| :--- | :--- | ---: |
| INF... | Restricted INF Elective*** | 3 |
| INF228 | Excel for Problem Solving | 1 |
| BUS271 | E-Commerce | 3 |
| … ... | Humanities Elective** | 3 |
| ..... | Social Sciences Elective** | 3 |
|  |  | -15 |

* Credit-by-exam tests are available.
** General Education Elective - see page 73.
*** Restricted INF Electives:

| INF108 | PC Upgrade, M aintenance and Diagnosis |
| :--- | :--- |
| INF150 | Business Programming Logic |
| INF160 | Netw orking Technologies and Data Communications |
| INF253 | Technical Communications |
| Inder only during spring semester |  |

NOTE: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN BUSINESS TECHNOLOGIES

## WEB DEVELOPMENT AND MANAGEMENT CODE AAS.BT.WEB.MGMT

## first Semester

| INF101 | Introduction to Information Technology | 3 |
| :--- | :--- | :---: |
| INF145 | Introduction to Visual Basic for Business | 3 |
| INF150 | Business Programming Logic* | 3 |
| INF163 | Internet Concepts and Applications | 3 |
| WRT101 | English Composition I | 3 |
|  |  | $\overline{1} \overline{5}$ |

## Second Semester

## $\begin{array}{ll}\text { INF114 } & \text { Mic } \\ \text { INF140 } & \text { Intr } \\ \text { INF146 } & \text { Web } \\ \text { INF246 } & \text { Ad } \\ \text { WEX101 } & \text { Dy } \\ \text { WRT201 } & \text { Eng } \\ & \\ & \\ \text { Third Semester }\end{array}$

| INF151 | M icrocomputer Database: Access |  |
| :---: | :---: | :---: |
|  | or | 1 |
| INF245 | Database: SQL, Structured Query Language |  |
| INF160 | Netw orking Technologies and Data |  |
|  | Communications | 3 |
| INF253 | Technical Communications | 3 |
| BUS101 | Introduction to Business | 3 |
| WEX... | Wellness and Exercise Elective*** | 1 |
|  | Humanities Elective*** | 3 |
| ... ... | Social Sciences Elective*** | 3 |
|  |  | $\overline{1} \overline{7}$ |
| Fourth Sem | ster |  |
| INF153 | Java for Business Applications |  |
|  | or |  |
| INF240 | Client-side Scripting Using JavaScript | 3 |
| INF228 | Excel for Problem Solving | 1 |
| INF263 | Server-Side Internet Programming** | 3 |
| BUS271 | E-Commerce | 3 |
| ... ... | Humanities Elective*** | 3 |
|  | Natural Sciences*** |  |
|  | or | 3-4 |
| M AT/CIS... | M athematics/Computer Science*** ${ }^{\text {+ }}$ |  |

* Class offered only during fall semester
** Class offered only during spring semester.
*** General Education Elective - see page 73.
$\dagger$ One of the following Mathematics electives is strongly recommended:

$$
\begin{array}{ll}
\text { MAT150 } & \text { Elementary Statistics } \\
\text { MAT155 } & \text { Finite Mathematics } \\
\text { M AT223 } & \text { Calculus for Managerial and Social Sciences } \\
\text { MAT280 } & \text { Calculus I }
\end{array}
$$

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## CAREER PROGRAMS

ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN HEALTH PROFESSIONS

## DENTAL HYGIENE <br> CODE AAS.HP.DENTL

Since September 2005, dental hygiene applicants are required to pass a nationally standardized entrance exam for admittance into the program.

## First Semester

## $\begin{array}{ll}\text { BIO104 } & \text { Micro } \\ \text { BIO109 } & \text { Anat } \\ \text { DHY101 } & \text { Oral } \\ \text { DHY108 } & \text { Dent } \\ & \begin{array}{l}\text { Physi } \\ \text { DHY109 } \\ \\ \text { Oral } \\ \text { Histo } \\ \text { WRT101 } \\ \text { Engli }\end{array} \\ & \\ \text { Second Semester }\end{array}$

BIO209 Anatomy and Physiology II
WEX101 Dynamics of Health \& Fitness 2
DHY201 Oral Hygiene II 3
DHY205 Dental Radiology 3
$\begin{array}{lll}\text { DHY207 } & \text { General \& Oral Pathology } & 3 \\ \text { WRT201 } & \text { English Composition II } & 3\end{array}$
$-\overline{18}$
Summer Session I and II
CHM 110
Basic Biochemistry

Summer Session II
DHY200
Pharmacology for Dental Hygiene

|  |  | $\overline{2}$ |
| :--- | :--- | :--- |
| Third Semester |  |  |
| DHY202 | Oral Hygiene III | 4 |
| DHY204 | Dental Materials | 3 |
| DHY206 | Public Health and Community |  |
|  | Dentistry | 3 |
| DHY209 | Periodontology I | 1 |
| WEX... | Dynamics of Health \& Fitness <br>  <br>  <br> Experience* |  |
|  |  | 1 |

Fourth Semester

| DHY219 | Periodontology II |
| :---: | :---: |
| DHY203 | Oral Hygiene IV |
| DHY214 | Nutrition in Dental Health |
| PSY101 | General Psychology |
| SOC101 | Sociology |
| SPE111 | Speech Communication |
| ... ... | Humanities Elective* |

[^18]Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test before entering the Dental Hygiene program.

DIAGNOSTIC MEDICAL SONOGRAPHY
CODE AAS.HP.DMS
First Semester
BIO109 Anatomy \& Physiology I 4
DM S101 Ultrasound Physics \& Inst. I 2
DMS102 Clinical Medicine \& Patient Care 2
DMS113 Abdominal Sonography I 3
DMS115 Cross Sectional Anatomy 4
WRT101 English Composition I 3

Second Semester
BIO209 Anatomy \& Physiology II 4
DM S201 Ultrasound Physics \& Inst. II 2
DM S204 Introduction to M edical Imaging 1
DM S205 OB/GYN Sonography 3
DMS213 Abdominal Sonography II 3
DM S218 Ultrasound Clinic I (160 hours) 1
WRT201 English Composition II 3

Summer Session I or Summer Session II
DM S219 Ultrasound Clinic II-Abdomen (240 hrs) 2
... ... Humanities Elective* 3

5

Third Semester
WEX101 Dynamics of Health \& Fitness 2
DM S214 Echocardiography 3
DM S220 Ultrasound Clinic III-OB/GYN (240 hrs) 2
DM S226 OB Sonography II 3
DMS229 Vascular Imaging 2
$\overline{1} \overline{2}$
Fourth Semester
DM S221 Ultrasound Clinic IV-Echocardiography (240 hrs) 2
․․․ H227 Humanities Elective* 3
DMS227 Echocardiography II 3
DMS228 Advanced Ultrasound Practices 1
\#̈.̈ Social Science Elective*
WEX... Dynamics of Health \& Fitness Exp.* 1
$\overline{1} \overline{3}$
Summer Session I or Summer Session II
$\begin{array}{llc}\text { DM S222 } & \text { Ultrasound Clinic V-Vascular (200 hrs) } & 1 \\ \text { DM S230 } & \text { Comprehensive Review } & 3 \\ & & \overline{4} \\ * & \\ & \text { General Education Elective - see page } 73 . & \end{array}$
Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

Total program credits $=69$
Program Prerequisites:
High School Advanced Placement Biological Science (AP test documentation required), High School Advanced Placement Physics (AP test documentation required), High School Algebra College - Bio-109, PHY-185, MAT-035 or MAT-031/032

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN HEALTH PROFESSIONS

## HEALTH SCIENCE CODE AAS.HP.HLTH.SCI

This program is for practicing professionals whose experience in the field has gained them the equivalent of one year of study in a two-year program. This curriculum is designed for graduates of one-year, post-secondary programs who hold current certification or licensure in an Health Profession discipline,such as dental assisting, diagnostic medical sonography, licensed practical nursing, medical office assisting, radiography, respitatory technology, and surgical technology. Certification or licensure must be recognized by the accrediting agencies of Bergen's Health Professions Programs. Thirty credits for certification/licensure will be granted after completion of the degree requirements resulting in 65 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

| WRT101 | English Composition I | 3 |
| :---: | :---: | :---: |
| WEX101 | Dynamic of Health \& Fitness | 2 |
| ..... | Humanities Elective* | 3 |
| ..... | M ath/Computer Science Elective* | 3 |
|  | Natural Sciences Elective* $\dagger$ | 2 |
| ..... | Social Sciences Elective* $\ddagger$ | 3 |
| Second Semester |  |  |
| WRT201 | English Composition II | 3 |
| ..... | Natural Sciences Elective* $\dagger$ | 4 |
|  | Humanities Elective* | 3 |
|  | Free Elective* | 3 |
| WEX... | Dynamics of Health \& Fitness | 1 |
|  | Experience |  |
| ..... | Social Sciences Elective* $\ddagger$ | 3 |

* General Education Elective - see page 73.
$\dagger$ Natural Sciences Recommended Elective Courses
BIO103 Microbiology BIO104 General Biology BIO109 Anatomy and Physiology I BIO203 General Biology II BIO209 Anatomy and Physiology II CHM 100 Introduction to Chemistry CHM 112 College Chemistry PHY185 Introduction to Physics
$\ddagger$ Social Sciences Recommended Elective Courses
PSY101 General Psychology PSY102 Abnormal Psychology S0C101 Introduction to Sociology S0C103 Sociology and the Family SOC113 Social Problems



## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN HEALTH PROFESSIONS

| MEDICAL OFFICE ASSISTANT CODE AAS.HP.MOA |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| BIO109 | Anatomy \& Physiology I | 4 |
| WEX101 | Dynamics of Health \& |  |
|  | Fitness | 2 |
| M OA140 | M edical Terminology | 3 |
| M OA141 | Introduction to Medical Assisting | 3 |
| INF100 | Keyboarding I | 3 |
| WRT101 | English Composition I | 3 |
|  |  | 18 |
| Second Semester |  |  |
| B10209 | Anatomy \& Physiology II | 4 |
| INF119 | Document Processing with |  |
|  | Microsoft Word | 3 |
| M OA240 | Clinical Office Practice | 4 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
| WRT201 | English Composition II | 3 |
|  | Humanities Elective* | 3 |
|  |  | 18 |
| Third Semester |  |  |
| WEX159 | CPR \& Emergency |  |
|  | First Aid | 3 |
| M OA218 | Medical Economics | 2 |
| M OA241 | Clinical Lab Technology | 4 |
| M OA243 | Medical Office Assistant Externship I (8-12 hours per week) | 1 |
| M OA203 | Medical Assistant Administrative |  |
|  | Procedures I | 3 |
| ... ... | Humanities Elective* | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| M OA200 | Pharmacology for Medical Office |  |
|  | Assistants | 2 |
| $\begin{aligned} & \text { ACC104 } \\ & \text { MOA244 } \end{aligned}$ | Medical Accounting | 3 |
|  | Medical Office Assistant Externship II (8-12 hours per week) | 1 |
| M OA201 | Diagnostic and Procedural |  |
|  | Coding | 4 |
| M OA204 | Medical Assistant Administrative |  |
|  | Procedures II | 3 |
| PSY101 | General Psychology | 3 |
|  |  | 16 |
| * General Education Elective - see page 73. |  |  |
| Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test. |  |  |

## RADIOGRAPHY <br> CODE AAS.HPRAD

| First Semester |  |  |
| :--- | :--- | ---: |
| BIO109 | Anatomy \& Physiology I | 4 |
| RAD180 | Introduction to Radiography | 2 |
| RAD181 | Radiography I | 5 |
| RAD182 | Radiography Clinical I | 1 |
| WRT101 | English Composition I | 3 |
|  |  | -15 |

## Second Semester

BIO209 Anatomy \& Physiology II 4

RAD276 Principles of Imaging Equipment 3
RAD281 Radiography II 4
RAD282 Radiography Clinical II 1
WRT201 English Composition II $-\frac{3}{-15}$

## Summer Session I

RAD283 Intermediate Radiography Clinical, 12 weeks at 32 hours per week ( 384 hours) $=2$ credits.

## Third Semester

WEX101 $\begin{aligned} & \text { Dynamics of Health \& } \\ & \text { Fitness }\end{aligned}$
RAD183 Radiographic Pathology 2
RAD184
$\begin{aligned} & \text { Advanced Imaging Equipment and } \\ & \text { Patient Care Practices }\end{aligned}$
RAD280 Image Production \& Evaluation 3
RAD285 Radiography III 4
RAD286 Radiologic Clinical III 1
... ... Humanities Elective* 3

## Fourth Semester

| WEX... | Dynamics of Health \& Experience* | 1 |
| :--- | :--- | ---: |
| RAD275 | Special Imaging Equipment and |  |
|  | Therapeutic Modalities | 2 |
| RAD288 | Radiography IV | 4 |
| RAD289 | Radiologic Clinical IV | 2 |
| ... ... | Humanities Elective* | 3 |
| ..... | Social Science Elective* | 3 |
|  |  | -15 |

## Summer Session II

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

* General Education Elective - see page 73.

1,834 clinical hours are required for program completion.
Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN HEALTH PROFESSIONS



## VETERINARY TECHNOLOGY CODE AAS.HP.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 and Fitness | 2 |
| MAT... | General Education Math Elective** | 3 |
|  |  | -18 |

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 |
|  |  | -15 |
| Summer |  |  |
| BIO104 | Microbiology |  |
| VET220 | Veterinary Technology Externship It | 4 |
| ...... | Humanities Elective* | 1 |
|  |  | $-\frac{3}{8}$ |

## Third Semester

| VET203 | Veterinary Nursing I | 3 |
| :--- | :--- | :---: |
| VET207 | Diagnostic Imaging | 3 |
| VET205 | Clinical Laboratory Procedures I | 3 |
| VET216 | Veterinary Office M anagement | 3 |
| ...... | Humanities Elective* | 3 |
|  |  | -15 |

## Fourth Semester

| VET214 | Veterinary Nursing II | 3 |
| :--- | :--- | ---: |
| VET219 | Surgical Assistance \& Anesthesia | 3 |
| VET217 | Clinical Laboratory Procedures II | 3 |
| $\ldots . .$. | Social Science Elective* | 3 |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience* | 1 |
|  |  | -13 |

## Summer

VET218 Farm Animal Nursing 3
VET221 Veterinary Technology Externship II*** $-\frac{1}{4}-$

[^19]Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

Note: Students who wish to pursue a career in the pharmaceutical or biomedical industries may wish to take VET290 (Applied Transgenics and Microinjection Techniques) when the course is offered. Students who fulfill the requirements of this course will receive a certificate of completion credential.

CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN HUMAN SERVICES

| CORRECTIONAL STUDIES CODE AAS.HS.CORR |  |
| :---: | :---: |
| First Sem |  |
| CRJ101 | Introduction to Criminal Justice |
| CRJ 102 | Introduction to Corrections |
| WEX101 | Dynamics of Health and Fitness |
| WRT101 | English Composition I |
|  | Humanities Elective * $\dagger$ |
|  | Social Sciences Elective* ${ }^{*}$ |
| Second Semester |  |
| CRJ108 | Topics in Criminal Justice |
| CRJ113 | The Juvenile Justice Process |
| POL104 | State and Local Government |
| S0C101 | Sociology |
| WEX... | Dynamics of Health \& Fitness Experience* |
| WRT201 | English Composition II |
| Third Semester |  |
| CRJ107 | Criminology*** |
| CRJ114 | Correctional Administration** |
| LIT220 | Social Aspects of Literature |
| S0C103 | Sociology of the Family |
|  | Natural Sciences* |
|  |  |
| M AT/CIS | M athematic/Computer Science* |
| Fourth Semester |  |
| CRJ115 | Correctional Law** |
| PSY102 | Abnormal Psychology |
|  | or |
| PSY104 | Psychology of Human Relations |
| S0C113 | Social Problems |
| SPE111 | Speech Communication |
| ... ... | Humanities Elective * |
| ..... | Free Elective * * |
| * General Education Elective - see page 73. <br> ${ }^{* *}$ CRJ 102 highly recommended before taking this course <br> *** SOC101 highly recommended before taking this course <br> $\dagger$ HIS112 highly recommended <br> $\ddagger$ PSY101 highly recommended <br> - PHR102 highly recommended <br> - CRJ462 highly recommended |  |

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

EARIY CHILDHOOD EDUCATION CODE AAS.HS.EARLY.CHILD

## First Semester

PSY101 General Psychology 3
SOC102 Introduction to Human Services 3
WRT101 English Composition I 3
... ... Humanities Elective* 3
... ... Natural Sciences*
MAT/CIS... Mathematics/Computer Science
Elective*

Second Semester
EDU101 Introduction to Education 3
EDU120 Early Childhood Education I 3
WEX101 Dynamics of Health \& Fitness 2
SPE111 Speech Communication 3
WRT201 English Composition II 3
... ... Social Science Elective* 3

Third Semester
EDU124 Curriculum Materials \& M ethods 3
$\begin{array}{lll}\text { EDU130 } & \text { Infants and Toddlers in Early } \\ \text { Childhood Education }\end{array}$
EDU220 Early Childhood Education II 3
EDU222 Supervised Field Work Experience I 2
EDU223 Field Work Seminar I 2
WEX... $\begin{gathered}\text { Dynamics of Health \& Fitness } \\ \text { Experience* }\end{gathered}$
PSY201 Child Psychology 3

Fourth Semester
EDU126 Developing \& Implementing Curriculum 3
EDU132 Parenting of Very Young Children 3
EDU224 Supervised Field Work Experience II 2
EDU225 Field Work Seminar II 2
$\begin{array}{ll}\text { SOC103 } & \begin{array}{l}\text { Sociology of the Family } \\ \text { or }\end{array}\end{array}$
SOC120 Sociology of Gender Roles
... ... Humanities Elective* 3

* General Education Elective - see page 73.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## LAW ENFORCEMENT STUDIES CODE AAS.HS.LAWENF

First Semester
CRJ101 Introduction to Criminal Justice 3
SOC101 Sociology 3
WEX101 Dynamics of Health and Fitness 2
WRT101 English Composition I 3
... ... Humanities Elective* $\dagger$ 3
... ... Social Science Elective* $\ddagger$

Second Semester
CRJ109 Contemporary Issues in Policing
CRJ113 The Juvenile Justice Process 3
POL104 State and Local Government 3
SOC103 Sociology of the Family 3
WEX... Dynamics of Health and Fitness Experience*
WRT201 English Composition II

Third Semester
CRJ111 Criminal Investigation 3
CRJ105 Police Administration** 3
LIT220 Social Aspects of Literature 3
SOC113 Social Problems 3
... ... Natural Sciences Elective* or

3-4
MAT/CIS... M athematics/ Comp. Science Elective*

Fourth Semester
$\begin{array}{ll}\text { CRJ103 } & \text { Criminal Law** } \\ \text { CRJ107 } & \text { Criminology*** } \\ \text { PSY102 } & \text { Abnormal Psychology } \\ & \text { or } \\ \text { PSY104 } & \text { Psychology of Human Relations } \\ \text { SPE111 } & \text { Speech Communication } \\ \ldots \ldots & \text { Free Elective } \\ \ldots \ldots & \text { Humanities Elective }\end{array}$
Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN INDUSTRIAL and DESIGN TECHNOLOGIES

| DRAFIING AND DESIGN TECHNOLOGY CODE AAS.IDT.DRFT |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| DFT107 | Drafting 1 | 2 |
| TEC180 | Problem Solving Using Technology | 4 |
| WRT101 | English Composition I | 3 |
|  | Humanities Elective* | 3 |
|  | Social Science Elective* | 3 |
| DFT210 | Computer Aided Drafting I | 3 |
|  |  | 18 |
| Second Semester |  |  |
| DFT207 | Drafting II | 3 |
| DFT208 | Engineering Graphics I | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| WRT201 | English Composition II | 3 |
| ... | Humanities Elective* $\dagger$ | 3 |
| ... ... | Natural Sciences* |  |
|  |  | 3-4 |
| MAT/CIS... | Mathematics/Computer Science |  |
|  |  | $\overline{1} 7 \overline{1} \overline{1} \overline{8}$ |
| 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 1 | 2 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
|  |  | 15 |
| Fourth Semester |  |  |
| DFT216 | Mechanical Building Systems II |  |
|  | or | 2-3 |
| DFT462 | Co-op Work Exp (Drafting) |  |
| DFT263 | Architectural Design | 3 |
| DFT266 | Materials \& M ethods of Construction |  |
|  | or | 3 |
| MFG119 | Manufacturing Design I |  |
| DFT282 | Technical Illustration | 3 |
| HRT113 | Principles of Landscaping | 3 |
|  |  | -14-15 |
| * General <br> † ART103 | ducation Elective-see page 73. <br> rt History since the Renaissance is recommended |  |

## ELECTRONICS TECHNOLOGY CODE AASIDTTELECT.TECH

## First Semester

ELC101 DC-Circuit Analysis 4
TEC180 Problem Solving Using Technology 4
ELC100 Introduction to Electronics Technology 2
WRT101 English Composition I 3
WEX101 Dynamics of Health \& Fitness 2

Second Semester
ELC201 AC-Circuit Analysis 4
ELC203 Electronics I 4
WRT201 English Composition II 3
WEX... $\begin{aligned} & \text { Dynamics of Health \& Fitness } \\ & \\ & \text { Experience* }\end{aligned}$
... ... Natural Sciences*
MAT/CIS... Mathematics/Computer Science Elective* $\dagger$

Third Semester
ELC204 Electronics II 4
ELC214 Communication Systems I 4
PHY186 General Physics I 4
... ... Humanities Elective* 3
... ... Social Science Elective* 3

Fourth Semester
ELC215 Communication Systems II 4
PHY286 General Physics II 4
CHM 100 Intro to Chemistry 4
... ... Humanities Elective* 3
WRT202 Technical Writing 2-3
ELC462 Co-op Work Experience (Electronics)

* General Education Elective - see page 73.
$\dagger$ MAT150 Elementary Statistics is recommended.
Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN INDUSTRIAL \& DESIGN TECH

| GENERAL ENGINEERING TECHNOLOGY CODE AAS.IDT.ET.GEN |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| DFT107 | Drafting I | 2 |
| ELC101 | DC-Circuit Analysis | 4 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| TEC180 | Problem Solving Using Technology | 4 |
| WRT101 | English Composition I | 3 |
| ... | Social Science Elective* | 3 |
|  |  | -18 |
| Second Semester |  |  |
| DFT207 | Drafting II | 3 |
| ELC201 | AC-Circuit Analysis | 4 |
| MAT180 | Precalculus | 4 |
| CHM 100 | Intro to Chemistry | 4 |
| WRT201 | English Composition II | 3 |
|  |  | 18 |
| Third Semester |  |  |
| DFT210 | CAD I | 3 |
| ELC203 | Electronics I | 4 |
| PHY186 | General Physics I | 4 |
|  | Humanities Elective* | 3 |
| WEX... | Dynamics of Health \& Fitness Experience* | 1 |
|  |  | -15 |
| Fourth Semester |  |  |
| ELC204 | Electronics II | 4 |
| PHY286 | General Physics II | 4 |
| ... | Humanities Elective* | 3 |
| ... ... | Restricted Electives** | 3-5 |
|  |  | 14-1' $\overline{6}$ |

* General Education Elective - see page 73.
** Restricted Electives: DFT208, DFT211, DFT282, MFG119, M AT150, MAT280. It is recommended that students planning to transfer to a baccalaureate degree program make the choice of MAT280.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## MANUFACTURING TECHNOLOGY <br> CODE AAS.IDT.MFG.TECH

First Semester
MFG122 Machine Tool Principles I 3
MFG123 Quality and Measurements I 3
DFT107 Drafting I 2
WRT101 English Composition I 3
...... Social Science Elective* $\dagger$ 3

$$
\overline{14}
$$

Second Semester
MFG222 Machine Tool Principles II 3
MFG223 Quality and Measurements II 3
TEC180 Problem Solving Using Technology 4
WRT201 English Composition II 3
SPE111 Speech Communication 3 $-16$

Summer (Combined Summer Sessions)
MFG464 Co-op Work Experience (M anufacturing Technology)

4
Third Semester
MFG224 $\begin{aligned} & \text { Advanced Tooling, Materials, } \\ & \text { and Automation }\end{aligned}$
MFG225 Process Improvement 2
DFT210 Computer Aided Drafting I or
MFG119 Manufacturing Design I
... ... Humanities Elective* $\ddagger$ 3
WEX101 Dynamics of Health \& Fitness $-\frac{2}{-14}$
Fourth Semester
MFG226 Methods, Fixture Design, and Estimating 3
MFG227 CNC Programming 4
... ... Natural Sciences*
or
MAT/CIS... Mathematics/Computer Science Elective*
..... Humanities Elective* 3
WEX... Dynamics of Health \& Fitness Experience* 1 $1 \overline{4}-\overline{1} 5$

* General Education Elective - see page 73.
† SOC101 recommended
$\ddagger$ PHR103 or PHR105 recommended
- LAN113 recommended

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN NURSING

| NURSING CURRICULUM (DAY SESSION) CODE AAS.NURS.DAY |  |  |
| :---: | :---: | :---: |
| Fall Semester |  |  |
| BIO109 | Anatomy and Physiology I | 4 |
| PSY101 | General Psychology | 3 |
| WRT101 | English Composition I | 3 |
| NUR181 | Physical Assessment | 1 |
| NUR182 | Pharmacology for Nurses | 1 |
| NUR183 | Basic Concepts \& Skills of Nursing | 6 |
|  |  | 18 |
| Spring Semester |  |  |
| B0209 | Anatomy and Physiology II | 4 |
| PSY106 | Developmental Psychology | 3 |
| WRT201 | English Composition II | 3 |
| NUR281 | Adult Health Nursing A | 4 |
| NUR282 | Adult Health Nursing B | 4 |
|  |  | 18 |
| Fall Semester |  |  |
| BIO104 | Microbiology | 4 |
| S0C101 | Sociology | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| NUR284 | Maternal-Child Health Nursing | 5 |
| NUR285 | Mental Health Nursing | 4 |
|  |  | 18 |
| Spring Semester |  |  |
|  | Humanities Electives* | 6 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
| NUR290 | Adult Health Nursing C | 4 |
| NUR291 | Adult Health Nursing D | 4 |
|  |  | 15 |
| * General Education Elective - see page 73. |  |  |
| The day nursing program accepts students for fall only. |  |  |
| The total number of credits required for the A.A.S. degree is $69: 33$ nursing credits and 36 general credits. |  |  |
| Exit Examination: A nationally standardized examination will be given. Only those students who achieve a passing score and have met all other degree requirements will be certified by the Director to take the NCLEX-RN. In order to repeat the exam, proof of satisfactory completion of a live review is required. |  |  |
| Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test. |  |  |

## NURSING CURRICULUM (EVENING SESSION) CODE AAS.NURS.EVE

## Spring Semester

BIO109 Anatomy and Physiology l* ..... 4
PSY101 General Psychology* ..... 3
WRT101 English Composition I* ..... 3
10
Summer Semester
WEX101 Dynamics of Health and Fitness* ..... 2
SOC101 Sociology* ..... 3$-5$
Fall Semester
BIO209 Anatomy and Physiology II* ..... 4
PSY106 Developmental Psychology* ..... 3
WRT201 English Composition II* ..... 3
TO
Spring Semester
NUR181 Physical Assessment ..... 1
NUR182 Pharmacology for Nurses ..... 1
NUR183 Basic Concepts \& Skills of Nursing ..... 6
$-{ }^{-}$
Summer Semester
WEX... Dynamics of Health and Fitness
Experience** ..... 1
BIO104 Microbiology ..... 4
-5
Fall Semester
NUR281 Adult Health Nursing A ..... 4
NUR282 Adult Health Nursing B ..... 4
Spring Semester
NUR284 Maternal-Child Health Nursing 5
NUR285 M ental Health Nursing ..... 4
Summer Semester
..... Humanities Electives** ..... 6
Fall Semester
NUR290 Adult Health Nursing C
NUR290 Adult Health Nursing C ..... 4 ..... 4
NUR291 Adult Health Nursing D ..... 4
-8

* Evening Nursing applicants cannot be accepted until general corequisites( 8 courses) have been completed. Evening nursing program accepts studentsfor spring only.
** General Education Elective - see page 73.
Exit Examination: A nationally standardized examination will be given. Only those students who achieve a passing score and have met all other degree requirements will be certified by the Director to take the NCLEX-RN. In order to repeat the exam, proof of satisfactory completion of a live review is required.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN NURSING

| NURSING CURRICULUM (LPN/ADN CAREER MOBILITY TRACK) Code: AAS.NURS.MBL.DAY |  |  |
| :---: | :---: | :---: |
| Program Prerequisites |  |  |
| B10109 | Anatomy and Physiology I | 4 |
| B10209 | Anatomy and Physiology II | 4 |
| PSY101 | General Psychology | 3 |
| PSY106 | Developmental Psychology | 3 |
| WRT101 | English Composition I | 3 |
| WRT201 | English Composition II | 3 |
| $\ldots$ | Bridge Course | 3 |
|  |  | -23 |
| First Semester |  |  |
| NUR281 | Adult Health Nursing A | 4 |
| NUR282 | Adult Health Nursing B | 4 |
| S0C101 | Sociology | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
|  |  | -13 |
| Summer Session |  |  |
| BIO104 | Microbiology | 4 |
|  |  | 4 |
| Second Semester |  |  |
| NUR284 | Maternal-Child Health Nursing | 5 |
| NUR285 | M ental Health Nursing | 4 |
| ..... | Humanities Elective* | 3 |
|  |  | -12 |
| Third Semester |  |  |
| NUR290 | Adult Health Nursing C | 4 |
| NUR291 | Adult Health Nursing D | 4 |
|  | Humanities Elective* | 3 |
| WEX... | Dynamics of Health and |  |
|  | Fitness Experience | 1 |
|  |  | -12 |

* General Education Elective - see page 73.

Day Students: Are accepted in the spring.
Fast Track Program: When the student receives passing grades in NUR 281 and NUR 282, the basic courses in the program curriculum (NUR 181,182 and 183) will be waived.

Exit Examination: A nationally standardized examination will be given. Only those students who achieve a passing score and have met all other degree requirements will be certified by the Director to take the NCLEX-RN. In order to repeat the exam, proof of satisfactory completion of a live review is required.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test

Note: Applicants must have a valid New Jersey LPN licence.

## NURSING CURRICULUM (LPN/ADN CAREER MOBILLTY TRACK) Code: AAS.NURS.MBL.EVE

## Program Prerequisites

BIO109 Anatomy and Physiology I 4
BIO209 Anatomy and Physiology II 4
BIO104 Microbiology 4
PSY101 General Psychology 3
PSY106 Developmental Psychology 3
SOC101 Sociology 3
WRT101 English Composition I 3
WRT201 English Composition II 3

| .... | Bridge Course |
| :--- | :--- |
|  | -3 |
| 30 |  |

First Semester
NUR281 Adult Health Nursing A 4
NUR282 Adult Health Nursing B $-\frac{4}{8}-$
Second Semester
NUR284 Maternal-Child Health Nursing 5
NUR285 Mental Health Nursing $-\frac{4}{9}-$
Summer Session I
WEX101 Dynamics of Health and Fitness 2
..... Humanities Elective* 3

## Summer Session II

WEX... $\begin{aligned} & \text { Dynamics of Health and } \\ & \text { Fitness Experience }\end{aligned}$
..... Humanities Elective* 3

Third Semester
NUR290 Adult Health Nursing C 4
NUR291 Adult Health Nursing D $\quad-\frac{4}{8}-$

* General Education Elective - see page 73.

Evening Students: Are accepted in the fall.
Fast Track Program: When the student receives passing grades in NUR 281 and NUR 282, (first semester) the basic courses in the program curriculum (NUR 181,182 and 183) will be waived.

Exit Examination: A nationally standardized examination will be given. Only those students who achieve a passing score and have met all other degree requirements will be certified by the Director to take the NCLEX-RN. In order to repeat the exam, proof of satisfactory completion of a live review is required.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

Note: Applicants must have a valid New Jersey LPN licence.

## CAREER PROGRAMS

ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN SCIENCE TECHNOLOGY

## ENVIRONMENTAL TECHNOLOGY CODE AAS.ST.ENV.TECH

## First Semester

WRT101 English Composition ! 3
CHM 100 Introduction to Chemistry 4
BIO101 General Biology 4
ENV112 Environmental Health 3
WEX101 Dynamics of Health \& Fitness

## Second Semester

$\begin{array}{ll}\text { WRT201 } & \text { Englis } \\ \text { MAT150 } & \text { Elem } \\ \text { ENV121 } & \text { Envir } \\ \ldots . . . . & \text { Scien } \\ & \\ & \text { Hum } \\ & \\ \text { Third Semester }\end{array}$

| $\begin{aligned} & \text { TEC180 } \\ & \text { ENV109 } \end{aligned}$ | Problem Solving Using Technology | 4 |
| :---: | :---: | :---: |
|  | Environmental Policy Compliance \& |  |
|  | Regulation | 3 |
| BIO227 | Principles of Ecology | 4 |
|  | Humanities Elective** | 3 |
| ....... | Social Science Elective** | 3 |
|  |  | 17 |
| Fourth Semester |  |  |
| ENV122 | Environmental Chemistry | 4 |
|  | Dynamics of Health \& Fitness |  |
|  | Experience** | 1 |
| TEC190 | Introduction to Geographic Information |  |
|  | Systems | 4 |
| ENV113 | Human Environment | 3 |

N13

General Electives (see below)

* Recommended Sciences Electives:

B10203 General Biology II
BIO107 Introduction to Human Biology
ESC113 Geology
PHY185 Introducation to Physics
ESC112 Climatology
ESC114 Meteorology
** General Education Elective - see page 73.

| General | Electives |
| :--- | :--- |
| ENV461 | Co-op Work Experience |
| ENV114 | Field Lab Experience |
| ANT101 | Cultural Anthropology |
| BUS101 | Introduction to Business |
| DFT107 | Drafting I |
| GEO101 | World Geography |
| LGL101 | Fundamentals of Law |
| COM210 | Public Relations |
| BUS105 | Business Communications |
| POL107 | Introduction to Politics |
| PHR102 | Contemporary M oral Issues |
| PSY104 | Psychology of Human Relations |
| PSY122 | Ethology and Environmental Psychology |
| SOC105 | Urban Sociology |
| WEX125 | Introduction to Recreation |
| WRT202 | Technical Writing |



Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) IN SCIENCE TECHNOLOGY



Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## SCIENCE LABORATORY TECHNOLOGY CODE AAS.ST.SLT

First Semester
BIO101 General Biology 4

CHM 140 General Chemistry I 3
CHM 141 General Chemistry I-Lab 1
DFT107 Drafting I 2
WRT101 English Composition I 3
MAT150 Elementary Statistics 3 16

Second Semester
BIO104 Microbiology 3
CHM 212 Organic and Biochemistry 4
…. Humanities Elective* 3
WRT201 English Composition II 3
TEC180 Problem Solving Using Technology 4

Third Semester
PHY186 General Physics I 4
TEC201 Science Laboratory Technology I 4
ENV108 Hazardous Waste Site Operations 3
...... Social Science Elective* 3
WEX101 Dynamics of Health and Fitness $-\frac{2}{16}$
Fourth Semester
PHY286 General Physics II 4
TEC202 Science Laboratory Technology II 4
SPE119 Effective Speaking for Business and Professional Personnel 3
Humanities Elective* 3
Work Based Learning in Science and Technology
WEX... Dynamics of Health and Fitness Experience*

* General Education Elective - see page 73.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## CAREER PROGRAMS

## ONE-YEAR CERTIFICATES

To receive a Certificate 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 | CADI | 3 |
| TEC180 | Problem Solving Using Technology | 4 |
| WRT101 | English Composition I | 3 |
|  |  | $\bigcirc 12$ |
| Second Semester |  |  |
| DFT207 | Drafting II | 3 |
| DFT211 | CAD II | 5 |
| DFT208 | Engineering Graphics I | 3 |
|  |  | -11 |
| Third Semester |  |  |
| DFT282 | Technical Illustration | 3 |
| DFT212 | CAD III | 3 |
| ... ... | General Education Elective* | 3 |
|  |  | ${ }^{-}$ |

* General Education Elective - see page 73.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## COMPUTER SCIENCE <br> CODE CERT.COMP.SCI

## First Semester

CIS165 C++ Programming I* 3
WRT101 English Composition I 3
... ... General Education Elective** 3

Second Semester
CIS265 C++ Programming II 3
CIS271 Computer Organization and
Assembly Language I
3
... ... General Education Elective**

## Third Semester

| CIS277 | Data Structures \& Algorithms | 3 |
| :--- | :--- | :---: |
| MAT/CIS... | Mathematics/Computer Science |  |
|  | Electives*** | 9 |
|  |  | $-\overline{12}$ |

* By permission of the Department Head or the Computer Science Coordinator, properly prepared students may instead register for CIS265 and/or CIS271. Such students will be required to complete an additional 3 or 4 credit elective to be selected from: MAT250, CIS266, CIS278, MAT280, MAT281, MAT282, MAT286, CIS287, CIS288, CIS289.
** General Education Elective - see page 73. PHR103 Basic Logic or PHR203 Intermediate Logic is recommended for the General Education Elective.
*** The elective requirement in Computer Science and/or Mathematics must total at least 9 credits to be selected from the following courses: MAT250, CIS266, CIS278, MAT280, MAT281, MAT282, M AT286, CIS287, CIS288, CIS289.

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## ONE-YEAR CERTIFICATES

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 Communications at 201-447-7143. To avoid registration problems, please contact the department prior to registering for classes because students must provide a portfolio demonstrating artistic proficiency.

## COMPUTER ANIMATION CODE CERT.COMP.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 General Education Elective** $\quad \frac{3}{-18}$

## Restricted Electives:

ART126 Introduction to Computer Graphics***
ART181 Photography I
ART226 Letterform and Type
ART260 Graphic Design I
ART261 Graphic Design II
ART271 Portfolio Presentation
ART281 Photography II
ART287 Computer Layout I***
ART288 Computer Layout II***
ART289 Computer 2D Illustration***
ART298 Interactive Multimedia***

[^20]Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## COMPUTER GRAPHICS CODE CERT.COMPGRAPH

## First Semester

ART287 Computer Layout |* 3
ART289 Computer 2D Illustration* 3
ART... Restricted Electives (see below) 6
WRT101 English Composition I 3

- 15


## Second Semester

ART288 Computer Layout II* 3
ART297 Computer Imaging* 3
ART... Restricted Electives (see below) 6
...... General Education Elective** 3

## Restricted Electives:

ART181 Photography I
ART226 Letterform and Type
ART260 Graphic Design I
ART261 Graphic Design II
ART271 Portfolio Presentation
ART281 Photography II
ART290 Computer 2D Animation I***
ART291 Computer 2D Animation II***
ART292 Computer 3D Animation I***
ART293 Computer 3D Animation II***
ART298 Interactive Multimedia*

* Course uses Macintosh computers.
** General Education Elective - see page 73.
*** Course uses custom workstations running Windows XP.
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## COMPUTER TECHNICAL SUPPORT CODE CERT.COMP.SUPPORT

## First Semester

INF101 Introduction to Information Technology 3
INF108 PC Upgrade, M aintenance and Diagnosis 3
INF114 Microsoft Office 3
INF160 Networking Technologies and Data Communications
INF163 Internet Concepts and Applications 3
WRT101 English Composition I 3

## Second Semester

BUS101 Introduction to Business 3
INF253 Technical Communications 3
INF267 Network Security 3
INF... Operating System Restricted Elective* 3
... ... General Education Elective** 3

$$
-15
$$

* Operating System Restricted Elective INF232 Windows Client INF235 Advanced PC Upgrade, Maintenance, and Diagnosis INF254 Unix for the Network Administrator
** General Education Elective - see page 73.
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## CULINARY ARTS <br> CODE CERT.CULN.ARTS

## First Semester

## HRM 102 Food Protection 3

HRM 103 Professional Food Preparation Techniques 3
HRM 110 Introduction to Baking 3
HRM 106 Menu Planning and Nutrition 1
HRM 108 Computer Applications for
Hospitality Industry* 1
WRT101 English Composition I 3
... ... General Education Elective** 3 $-17$

## Second Semester

HRM 202 Quantity Food Production Service*** 3
HRM 206 Commercial Restaurant Operation* 3
HRM212 International Cuisine* 3
HRM213 Classical Garde-Manger*** 3
HRM 220 Advanced Baking Techniques* 3
... ... General Education Elective** 3

> * Class offered only during spring semester
> ** General Education Elective - see page 73.
> $* * *$ Class offered only during fall semester

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic
algebra if indicated by the Basic Skills Placement Test. algebra if indicated by the Basic Skills Placement Test.
The Culinary Arts Certificate Program is designed to aid those working food service professionals who wish to increase their job value or refresh their culinary preparation and leadership skills. Typically, students do not complete the certificate program in two semesters. In those instances where a student MUST complete the curriculum in one year or two successive semesters, the student M UST obtain written permission from the Divisional Dean to waive or otherwise adjust pre-

## DATABASE PROGRAMMING AND ADMINISTRATION CODE CERT.DB

## First Semester

INF114 Microsoft Office* 3
Second Semester
INF101 Introduction to Information Technology 3
INF144 Windows Desktop Operations
or
INF-165 Introduction to Linux 1
INF160 Netw orking Technologies and
Data Communications 3
INF217 Database for Business Applications 3
WRT101 English Composition I 3
INF... Programming Language Fundamentals** $-\frac{3}{1 \overline{1}}-$

## Third Semester

INF218 Database Programming 3
INF219 Database Administration 3
INF228 Excel for Problem Solving 1
INF267 Network Security
INF... Advanced Programming Languages*** $\dagger \quad 3$
...... General Education Elective 3

* Credit-by-exam tests are available
** Programming Language Electives: Fundamentals
INF145 Introduction to Visual Basic for Business
INF152 C/C++ Programming for Business
INF153 Java for Business Applications
*** Programming Language Electives: Advanced (Part 2 of continuing sequence)
INF224 Advanced C/C++ Programming for Business
INF246 Advanced Visual Basic for Business
INF268 Advanced Java for Business Applications
$\dagger$ Class offered only during spring semester
Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## E-COMMERCE: BUSINESS EMPHASIS <br> CODE CERT.ECOMM.BUS

## First Semester

BUS101 Introduction to Business

or 3

BUS170 Small Business M anagement
BUS103 Business Mathematics 3
INF146 Web Development Using HTM L 3
INF163 Internet Concepts and Applications 3
BUS105 Business Communications 3
WRT101 English Composition I

## Second Semester

BUS210 E-M arketing 3
BUS211 Internet Law 3
BUS271 E-Commerce 3
BUS205 Entrepreneurship 3
...... General Education Elective* 3
...... Information Technology Elective (2-3 credits)** 2-3

* General Education Elective - see page 73.
** Information Technology Elective : INF101, INF114, INF140, INF151 and INF251
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## ONE-YEAR CERTIFICATES

## ENVIRONMENTAL TECHNOLOGY CODE CERT.ENV.TECH

## First Semester

| ENV108 | Hazardous Waste Site Operations | 3 |
| :--- | :--- | :---: |
| ENV109 |  |  |
|  | Environmental Policy Compliance |  |
| and Regulation | 3 |  |
| ENV112 | Environmental Health | 3 |
| WRT101 | English Composition I | 3 |
| ..... | General Education Elective* $\dagger$ | $3-4$ |
|  |  | $\overline{15-1 \overline{6}}$ |

## Second Semester

ENV121 Environmental Microbiology 4
ENV113 Human Environment 3
TEC180 Problem Solving Using Technology 4
TEC190 Introduction to GIS 3
......
General Education Elective* $\ddagger$

* General Education Elective - see page 73.
† BIO101 General Biology I is recommended
$\ddagger$ CHM 100 Introduction to Chemistry is recommended
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## EXERCISE SCIENCE <br> CODE CERTEXER.SCI

## First Semester

BUS101 Introduction to Business 3
BIO103 The Human Body 4
WEX159 Cardiopulmonary Resuscitation \&
Emergency First Aid
WEX164 Exercise Science 3
WRT101 English Composition I 3 3

Second Semester

## PSY101 General Psychology 3

WEX106 Nutrition for Exercise and Fitness 3
WEX182 Fitness Measurement 3
WEX183 Programs \& Principles of Conditioning 3
WEX184 Sports Medicine I-Theory \& Practice 3

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## FLORAL DESIGN <br> CODE CERT.FLORAL

## First Semester

HRT102 Plant Science

HRT115 Floral Design
HRT232 Plant Propagation ..... 4
WRT101 English Composition I ..... 3
General Education Elective* ..... $-17$
Second Semester
RRT119 Greenhouse Operation and Production ..... 3
HRT120 Interior Plantscaping ..... 3
HRT234 Commercial Floral Design \& M anagement ..... 4
HRT462 Co-op Work Experience (Horticulture) ..... 2
... ... General Education Elective* ..... 3 ..... -18

* General Education Elective - see page 73.
** Three credits from any course(s) with ACC, BUS, or INF prefixes.
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## GROUNDS MANAGEMENT CODE CERT.GRND.MGT

## First Semester

HRT102 Plant Science ..... 4
HRT104 Landscape Plants and Materials I ..... 2
HRT112 Pests of Ornamental Plants ..... 4
HRT130 Landscaping Contracting1
HRT103 Turf and Grounds M anagement ..... 3
WRT101 English Composition I
$-3$
Second Semester
HRT125 Equipment Management ..... 2
HRT235 Landscape Site Analysis and Construction ..... 3
HRT237 Arboriculture/Plant Health Care ..... 3
HRT124 Irrigation Technology ..... 2
... ... General Education Elective* ..... 3
... ... Restricted Elective** ..... 2-4

* General Education Elective - see page 73.
** Restricted Electives: HRT113, HRT232, HRT233.
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## HOSPITALITY MANAGEMENT CODE CERT.HOSPMGMT

## First Semester

HRM 101 Introduction to Hospitality M anagement 3
HRM 102 Food Protection 3
HRM 103 Professional Food Preparation Techniques
HRM 104 Front Office Procedures*
HRM 108 Computer Applications for the Hospitality Industry**
WRT101 English Composition I General Education Elective***

## Second Semester

HRM $201 \quad$ Food and Beverage Cost Control 1
HRM 203 Beverage Management 2
HRM 204 Food Purchasing 2
HRM 205 Restaurant Service Management 3
HRM 207 Hotel Sales and Convention Planning
HRM 214 Banquet \& Catering M anagement 2
HRM 217 Issues in the Hospitality Industry 2
HRM 462 Co-op Work Experience (Hotel/Restaurant/Hospitality)
... ... General Education Elective***

* Class only offered during fall semester
** Class only offered during spring semester.
*** General Education Elective - see page 73.


## MEDICAL OFFICE ADMINISTRATIVE ASSISTANT CODE CERT.MOAA

## First Semester

| INF119 | Document Processing with Microsoft Word * | 3 |
| :--- | :--- | :---: |
| MOA140 | Medical Terminology | 3 |
| M OA141 | Introduction to Medical Assisting | 3 |
| M OA203 | Medical Assistant Administrative |  |
|  | Procedures I | 3 |
| M OA218 | Medical Economics | 2 |
| WRT101 | English Composition I | 3 |
|  |  | -17 |
| Second Semester |  |  |
| ACC104 | Medical Accounting** | 3 |
| MOA201 | Diagnostic \& Procedural Coding | 4 |
| MOA204 | Medical Assistant Administrative |  |
|  | Procedures II | 3 |
| PSY101 | General Psychology | 3 |
| WEX159 | CPR \& Emergency First Aid | 3 |
|  |  | -16 |

* Students are expected to keyboard at 30 wpm or enroll in INF100 Keyboarding I.
** Class offered only during spring semester.
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## MUSIC BUSINESS

CODE CERT.MUSC.BUS

## First Semester

MUS131 Class Piano I 2
MUS152 Music Business I 3
MUS103 Fundamentals of Music 2
WRT101 English Composition I 3
MUS133 Music Dictation and Sight Reading 2
MUS... Performance Ensemble Elective* 1
... ... General Education Elective** 3

## Second Semester

MUS231 Class Piano II 2
MUS252 Music Business II 3
MUS134 Ear Training and Musicianship 2
MUS... Performance Ensemble Elective* 1
MUS... Restricted Elective (3-4 credits)*** 3-4
... ... General Education Elective** 3
14-15

* Instrumental or vocal ensembles: M US121, M US122, MUS123, M US124, MUS125, MUS126, MUS127, MUS128, MUS140, MUS141, MUS142, MUS143
** General Education Elective - see page 73.
*** Restricted Electives: M US132, M US150, MUS118, all M UA courses
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## Restricted HRT Electives:

HRT101 Fundamentals of Horticulture
HRT102 Plant Science
HRT112 Pests of Ornamental Plants
HRT120 Interior Plantscaping
HRT236 Horticulture Marketing and Sales

## MUSIC TECHNOLOGY <br> CODE CERT.MUSC.TECH

## First Semester

MUS150 Electronic Music I 3
MUS131 Class Piano I 2
MUS132 Music Theory I 2
MUS151 Computer-Based Recording I 3
WRT101 English Composition I 3
MUS... Performance Ensemble Elective* General Education Elective**

## Second Semester

MUS250 Electronic Music II 3
MUS231 Class Piano II 2
MUS251 Computer-Based Recording II 3
MUS232 Music Theory II 2
MUS... Performance Ensemble Elective* 1
...... General Education Elective** 3
MUS... Restricted Elective (3-4 credits)*** 3-4

* Instrumental or vocal ensembles: MUS121, M US122, M US123, M US124, MUS125, MUS126, MUS127, MUS128, MUS140, MUS141, MUS142, MUS143
** General Education Elective - see page 73.
*** Restricted Electives: MUS133, MUS134, MUS152, all MUA courses
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## OFFICE TECHNOLOGY <br> CODE CERT.OFFTTECH

## Prior to Semester I or by Credit-By-Exam

INF100 Keyboarding l*

## First Semester

INF101 Introduction to Information Technology 3
INF114 Microsoft Office*
INF161 Internet Research and Data Handling
BUS101 Introduction to Business 3
WRT101 English Composition I 3
Elective General Education Elective** $\quad 3$

## Second Semester

INF119 Document Processing with Microsoft Word 3
INF146 Web Development Using HTML or
INF147 Web Development Using Dreamweaver
INF214 Administrative Simulationt 2
INF228 Excel for Problem Solving
INF... Restricted Elective *** 3
BUS103 Business Mathematics -

* Credit-by-exam tests are available.
** General Education Elective - see page 73.
*** Restricted INF Electives:
INF108 PC Upgrade, Maintenance and Diagnosis
INF150 Business Programming Logict
INF160 Netw orking Technologies and Data Communications
INF217 Database for Business Applications
INF253 Technical Communications
$\dagger$ Class offered only during spring semester
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

PIANO INSTRUCTION/PEDAGOGY
CODE CERT.PIANO

## First Semester

MUA104 Piano I 1
MUS103 Fundamentals of Music 2
MUS131 Class Piano I 2
MUS134 Ear Training and Musicianship 2
MUS153 Piano Pedagogy I 3
WRT101 English Composition I 3
... ... General Education Elective* 3

## Second Semester

MUA240 Piano II 1
MUS132 Music Theory I 2
MUS231 Class Piano II 2
MUS253 Piano Pedagogy II 3
MUS... Performance Ensemble** 2
... ... Restricted Elective (3-4 credits)*** 3
... ... General Education Elective* $\quad 3$

* General Education Elective - see page 73.
** Instrumental or vocal ensembles: MUS121, MUS125, MUS140, MUS246, MUS247, MUS248, MUS255, MUS256, MUS257, MUS258, MUS259, MUS260
*** Restricted Electives: MUA241, MUA242, MUS133, MUS134, MUS151, MUS241, MUS242

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## RADIATION THERAPY TECHNOLOGY <br> CODE CERT.RAD.THERAPY

First Semester
$\begin{array}{lll}\text { RTT110 } & \begin{array}{l}\text { Introduction to Radiotherapy and } \\ \text { Patient Care Management }\end{array} & \end{array}$
RTT120 Radiation Therapy Practices I 4
RTT130 Radiation Biology and Safety
RTT150 Principles of Diagnostic Radiation Physics
RTT121 Radiation Therapy Clinical Practicum I
Elective General Education Elective* 3

## Second Semester

| RTT200 | Survey of Diseases | 3 |  |
| :--- | :--- | ---: | :---: |
| RTT210 | Dosimetry and Treatment Practices | 3 |  |
| RT220 | Radiation Therapy Practices II | 4 |  |
| RTT230 | Quality Control and Instrumentation | 2 |  |
| RTT221 | Radiation Therapy Clinical Practicum II | 2 |  |
| ... ... | General Education Elective* | 3 |  |
|  |  |  |  |
| Third Semester |  |  |  |
| RTT222 | Radiation Therapy Clinical Practicum III | $-\frac{2}{2}$ |  |
|  |  | $-\frac{17}{2}$ |  |

[^21]Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## SURGICAL TECHNOLOGY <br> CODE CERT.SURG

## First Semester

| BIO109 | Anatomy \& Physiology I | 4 |
| :---: | :---: | :---: |
| SUR101 | Principles of Surgical Technology I | 6 |
| SUR102 | Surgical Technology Externship I | 2 |
|  | 2 days or $16 \mathrm{hrs} / \mathrm{wk} \times 15 \mathrm{wks}$ |  |
| WRT101 | English Composition I | 3 |
| SUR103 | Surgical Terminology | 1 |
| SUR104 | Microbiological Application in Surgery | 2 |
|  |  | 18 |
| Second Semester |  |  |
| BIO209 | Anatomy and Physiology II | 4 |
| SUR201 | Principles of Surgical Technology II | 5 |
| SUR202 | Surgical Technology Externship II | 2 |
|  | 3 days or 24 hrs/wk x 15 wks |  |
| ... ... | General Education Elective* | 3 |
|  |  | 14 |

## Summer Session

SUR203 Surgical Technology Externship III, 4 weeks at 40 hours per week for a total of 160 hours. 1 credit.
*General Education Elective - see page 73.
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## SMALL BUSINESS MANAGEMENT CODE CERT.SM.BUS.MGMT

## First Semester

BUS101 Introduction to Business 3
BUS103 Business Mathematics 3
BUS170 Small Business Management ${ }^{*}$ 3
INF101 Introduction to Information Technology 3
BUS105 Business Communications 3
WRT101 English Composition I 3

## Second Semester

ACC120 Computerized Accounting 3
BUS201 Marketing Principles 3
BUS205 Entrepreneurship* 3
BUS233 Business Law I 3
BUS271 E-Commerce
or
BUS204 Principles of Salesmanship
..... General Education Elective**

* Specialized course that may be offered only in the evening or online.
** General Education Elective - see page 73.
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.


## TRANSFER STUDIES CERTIFICATE: LIBERAL ARTS <br> CODE CERTTRAN.LA.GEN

## First Semester

SPE111 Speech Communication 3
WRT101 English Composition I 3
HIS... History Elective* $\dagger$ 3
... ... Math/Computer Science Elective* 3
... ... Humanities Elective* $\dagger$ 3
... ... Select any General Education course $\quad 3$
Second Semester
WRT201 English Composition II 3
HIS... History Elective* $\dagger$ 3
... ... Social Science Elective* $\dagger$ 3
... ... Natural Sciences Elective* 4
... ... Select any General Education course 3

* Select from courses approved for General Education - see page 73.
$\dagger$ It is recommended you select one Diversity course
Diversity Courses: Choose from the following Humanities or Social Sciences
Electives: ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203;
LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120;
SOC121; SOC222.
Note: To select the best courses for the college the student wishes to transfer to, s/he is advised to speak with a transfer counselor in the Advising Center (A-101) or the Counseling Center (A-118).


## TRANSFER STUDIES CERTIFICATE: SCIENCE, TECHNOLOGY, PROFESSIONAL STUDIES <br> CODE CERT.TRAN.STP.GEN

First Semester

| WRT101 | English Composition I | 3 |
| :---: | :---: | :---: |
|  | M AT/CIS M athematics Elective or Computer |  |
|  | Science or Natural Sciences |  |
|  | Elective (3-4) credits* | 3 |
| ... ... | Natural Science* $\dagger$ | 4 |
| ... ... | Select from introductory courses |  |
|  | required in the proposed major | 6 |
|  |  | 16 |
| Second Semester |  |  |
| SPE111 | Speech Communication | 3 |
| WRT201... ... | English Composition II | 3 |
|  | Humanities Elective* $\ddagger$ | 3 |
|  | Social Science Elective* $\ddagger$ | 3 |
| ... ... | Select from introductory courses |  |
|  | required in the proposed major | 6 |
|  |  | 18 |

* Select from courses approved for General Education - see page 73.
$\dagger$ Choose from Biology, Chemistry, Earth Sciences, or Physics
$\ddagger$ Diversity Course Recommended in either Humanities or Social Sciences
Diversity Courses: Choose from the following Humanities or Social Sciences Electives: ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.
Note: To select the best courses for the college the student wishes to transfer to, s/he is advised to speak with a transfer counselor in the Advising Center (A-101) or the Counseling Center (A-118).


## ONE-YEAR CERTIFICATES



Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## VASCULAR TECHNOLOGY CODE CERT.VAS.TECH

Program Prerequisites: ARDMS registry status and/or a graduate of a CAAHEP acredited Diagnostic M edical Sonography Program. Students with a Bachelor's degree are eligible. Students who are not ARDMS registered or have not graduated from an accredited Diagnostic Medical Sonography Program will be required to have completed the following before entrance into the Vascular Technology Program: College-level Science, College-level Physics, College-level Algebra

## First Semester

BIO109 Anatomy and Physiology I 4
DMS116 Introduction to Vascular Principles and 2
$\begin{array}{ll}\text { DM S117 } & \text { Instrumentation } \\ \text { Introduction to Vascular Imaging }\end{array}$
MOA140 Medical Terminology 3
WRT101 English Composition I 3
Elective General Education Elective* 3 $-17$

Second Semester
BIO-209 Anatomy and Physiology II 4
DMS-231 Essentials in Venous Ultrasound 2
DM S-232 Essentials in Arterial Ultrasound 3
DM S-233 Clinical Experiences I 1
Elective General Education Elective* 3
Summer Session
DM S234 Vascular Clinical Seminar 3
*General Education Elective - see page 73.

## CERTIFICATES OF ACHIEVEMENT

## BIOTECHNOLOGY <br> CODE COA.BIO.TECH

## First Semester

| BIO101 | General Biology I | 4 |
| :--- | :--- | ---: |
| CHM 140 | General Chemistry I | 3 |
| CHM 141 | General Chemistry Laboratory I | 1 |
|  |  | $-\frac{8}{8}-1$ |

## Second Semester

BIO210 Introduction to Biotechnology 4
MAT150 Elementary Statistics 3

## Third Semester

BIO211 Introduction to Bioinformatics

Note: Students enrolled in this program ARE REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## COMMERCIAL MUSIC PRODUCTION <br> CODE COA.MUSC.COMM.PROD

## First Semester

| M US131 | Class Piano I | 2 |
| :--- | :--- | ---: |
| M US150 | Electronic Music I | 3 |
| MUS152 | Music Business I | 3 |
| MUS... | Performance Ensemble Elective* | 1 |
|  |  | $-\frac{9}{9}$ |
| Second |  |  |
| MUS231 | Class Piano II | 2 |
| MUS151 | Computer-Based Recording I | 3 |
| M US252 | Music Business II | 3 |
| MUS... | Performance Ensemble Elective* | 1 |
|  |  | $-\frac{1}{9}$ |

* Instrumental or vocal ensembles: MUS121, MUS122, MUS123, MUS124, MUS125, MUS126, MUS127, MUS128, MUS140, MUS141, MUS142, MUS143

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## ENVIRONMENTAL TECHNOLOGY CODE COA.ENV

## First Semester

| ENV108 | Hazardous Waste Site Operations | 3 |
| :--- | :--- | :---: |
| ENV109 | Environmental Policy Compliance |  |
|  | and Regulation | $-\frac{3}{6}$ |

## Second Semester

$\begin{array}{llc}\text { ENV122 } & \text { Environmental Chemistry } & 4 \\ \text { ENV121 } & \text { Environmental Microbiology } & 4 \\ & & -\frac{8}{8}\end{array}$
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## FINANCE <br> CODE COA.FINANCE

## First Semester

| ACC110 | Financial Accounting | 3 |
| :--- | :--- | :---: |
| BNF101 | Principles of Banking* | 3 |
| BUS101 | Introduction to Business | 3 |
|  |  | $-\frac{9}{-}$ |
| Second |  |  |
| BNF201 | Principles of Finance | 3 |
| BNF202 | Asset Management** | 3 |
| REA102 | Acquisition and Financing of |  |
|  | Real Estate or BNF-102*** | 3 |
|  |  | $-\frac{3}{9}$ |

* Class offered only during fall semester
** Class offered only during spring semester
*** Holders of current NJ Sales or Brokers License are exempt from REA-102, but must take BNF-102 to complete the 18 credit requirement


## GEOGRAPHIC INFORMATION SYSTEMS (GIS) CODE COA.GIS

## First Semester

TEC190 Introduction to Geographic Information Systems 3
TEC191 Introduction to Mapping and Cartography $-\frac{3}{6}$

## Second Semester

TEC293 Advanced Geographic Information Systems 3
TEC292 Introduction to Remote Sensing $-\frac{3}{6}-$
Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## MACHINE TOOLING <br> CODE COA.MACH.TOOL

## First Semester

MFG122 Machine Tool Principles I 3
DFT107 Drafting I 2
DFT210 Computer Aided Drafting I $-\frac{3}{8}$

## Second Semester

MFG119 Manufacturing Design I 3
M FG222 Machine Tool Principles II $-\frac{3}{6}$

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

CERTIFICATES OF ACHIEVEMENT

## MANUFACTURING DESIGN <br> CODE COA.MFTG.DESIGN

## First Semester

MFG119 Manufacturing Design I 3
Second Semester
MFG219 Manufacturing Design II 3
Third Semester
MFG220 Manufacturing Design III 3

## Fourth Semester

MFG221 Manufacturing Design IV

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## PROFESSIONAL COOKING CODE COA.PROF.COOK

| HRM 102 | Food Protection | 3 |
| :--- | :--- | :---: |
| HRM 103 | Professional Food Preparation |  |
|  | Techniques | 3 |
| HRM 110 | Introduction to Baking | 3 |
| HRM 220 | Advanced Baking Techniques* | 3 |
| HRM 213 | Classical Garde Manger** | 3 |
| HRM 212 | International Cuisine* | 3 |
|  |  | -18 |

[^22]NOTE: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

NOTE: Students will not complete the Professional Cooking program in one semester.

## QUALITY ASSURANCE <br> CODE COA.QA

## First Semester

| TEC145 | Introduction to Quality Control | 4 |
| :--- | :--- | :---: |
| TEC150 | Quality Control in Biotechnology I | 3 |
|  |  |  |
| Second | Semester |  |
| TEC235 | Procedure Writing | -7 |
| TECC240 | Quality Contro: Microbial Contamination | 4 |
| TEC250 | Quality Control in Biotechnology II | 3 |
|  |  | -11 |

Note: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

## REAL ESTATE

CODE COA.REAL.EST

## First Semester

| BUS101 | Introduction to Business | 3 |
| :--- | :--- | ---: |
| REA101 | Principles of Real Estate* | $-\frac{3}{6}$ |

## Second Semester

REA202 Zoning, Planning and Land Use 3
REA203 N.J. Environmental Regulations 3
REA204 Real Estate Leasing* 2
REA205 Real Estate Finance - $-\frac{1}{9}$

* Holders of current N.J. Sales or Brokers License are exempt from these courses.

NOTE: Students enrolled in this program ARE NOT REQUIRED to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test

NOTE: Courses in the second semester will be offered in the evening only.

SPECIAL IMAGING FOR RADIOLOGIC TECHNOLOGISTS CODE COA.SPEC.IMAG.RAD

First Semester
RAD250 Cross Sectional Anatomy 4
RAD251 Computer Tomography 3
RAD252 Magnetic Resonance Imaging 3

Second Semester
RAD253 Magnetic Resonance Imaging 1
Clinical Practicum
RAD254 Computerized Tomography $-\frac{1}{2}$
All students must be registered/licensed radiographers $[R T(R) / L X T]$ in good standing to enroll in this program.

Note: Students enrolled in this program ARE NOT REQUIRED to succesffully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

This section contains an alphabetical listing by course letter code of all courses offered at the college.

| ACC ACCOUNTING | IST INTERDISCIPLINARY STUDIES |
| :---: | :---: |
| ALH ALLIED HEALTH | LAN WORLD LANGUAGES \& CULTURES |
| ALP AMERICAN LANGUAGE PROGRAM | LGL PARALEGAL STUDIES |
| ANT ANTHROPOLOGY | LGN LEGAL NURSE CONSULTANT |
| ART ART | LIT LITERATURE |
| BIO BIOLOGICAL SCIENCES |  |
| BNF BANKING AND FINANCE | MAT(CIS) MATHEM ATICS \& COM PUTER SCIENCE <br> Also see courses listed under the Information Technology (INF) designation. |
|  |  |
| BUS BUSINESS ADMINISTRATION | MFG MANUFACTURING TECHNOLOGY |
| CHM CHEM ISTRY | MOA MEDICAL OFFICE ASSISTANT |
| CIN/THR CINEMA | [MUA APPLIED MUSIC |
| CIS(MAT) COM PUTER SCIENCE | MUS MUSIC |
| Also see courses listed under the Information |  |
| Technology (INF) designation. | NUR NURSING |
| COM MASS COMMUNICATION | PHR PHILOSOPHY \& RELIGION |
| CRJ CRIMINAL JUSTICE | PHY PHYSICS |
| DAN DANCE | POL POLITICAL SCIENCE |
| DFT DRAFTING \& DESIGN | PSY PSYCHOLOGY |
| DHY dental hygiene | RAD RADIOGRAPHY |
| DMS ULTRASOUND/DIAGNOSTIC | REA REAL ESTATE |
| M EDICAL SONOGRAPHY | RSP RESPIRATORY THERAPY |
| EBS ENGLISH BASIC SKILLS | RTI RADIATION THERAPY |
| ECO ECONOMICS | SOC SOCIOLOGY |
| EDU EDUCATION | SPE SPEECH COMMUNICATION |
| ELC ELECTRONICS TECHNOLOGY | SUR SURGICAL TECHNOLOGY |
| ENV ENVIRONM ENTAL TECHNOLOGY | TEC TECHNOLOGICAL SCIENCES |
| ESC EARTH SCIENCES | THR THEATRE |
| GEO GEOGRAPHY | TRV TRAVEL \& TOURISM |
| HIS HISTORY | VAS VASCULAR TECHNOLOGY |
| HRM HOTEL/RESTAURANT/HOSPITALITY | VET VETERINARY TECHNOLOGY |
| HRT HORTICULTURE | WEX WELLNESS \& EXERCISE SCIENCE |
| INF INFORMATION TECHNOLOGY | WRT WRITING |
| Also see courses listed under Computer Science and Mathematics (CIS/MAT) designations. |  |

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's perspective of accounting and also to provide them with the necessary communication and analytical skills needed to succeed in future accounting courses. 2 lectures, 2 labs, 3 credits

ACC-101 Accounting 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. AS Transfer Degree students should take ACC-110.
2 lectures, 2 labs, 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 lectures, 2 labs, 3 credits

## ACC-107 Federal Taxation

reviews the history and background of federal taxation. Students learn 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 lectures, 2 labs, 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. AAS Career Program students should take ACC-101.
2 lectures, 2 labs, 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 Windows. 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 lectures, 2 labs, 3 credits

## ACC-140 Federal Income Tax

 Return Preparation will enable average taxpayers to complete their federal income tax returns using tax software. Topics include filing status, gross income, itemized deductions and tax credits.2 labs, 1 credit

## ACC-201 Accounting II extends

 the accounting principles learned in Accounting I to financial and managerial areas of corporations. A reas discussed are liabilities, statement of cash flows, financial statement analysis and interpretation, manufacturing operations, and budgeting. AS Transfer Degree students should take ACC-210.2 lectures, 2 labs, 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 cash flow statement is also taught. 2 lectures, 2 labs, 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, paid-in capital, retained earnings, accounting changes, and error analysis. Earnings per share and financial statement analysis are also covered in this course. 2 lectures, 2 labs, 3 credits Prerequisite: ACC-202

ACC-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 lectures, 2 labs, 3 credits Prerequisite(s): 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 lectures, 2 labs, 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 lectures, 2 labs, 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 Jersey Supreme Court are discussed. Hourly records, billing procedures, and accounting concepts are studied as they relate to legal situations. 2 lectures, 2 labs, 3 credits Prerequisites: LGL-101, LGL-103, and LGL-203

## ACC-210 Managerial

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. AAS Career Program students should take ACC-201.
2 lectures, 2 labs, 3 credits
Prerequisite: ACC-110

## ACC-220 Peachtree

Accounting/Excel Applications
will provide students with the skills required to use the Peachtree accounting software. Students will use Peachtree software to perform basic accounting functions. Accounting reports and statements will be generated using Excel. 2 lectures, 2 labs, 3 credits Prerequisite(s): ACC-101 or ACC-110

## ACC-462 Co-op Work

Experience (Accounting) requires part-time student employment in a business organization in order to permit the student to gain knowledge of accounting practices. Co-op job placement assistance is available through the Co-op office.
1 lecture, plus 179 minimum hours work experience distributed over the semester, 2 credits
Prerequisite(s): ACC-201 or ACC-210

## ALH - ALIIED 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 practitioners contribute to the health care delivery system. Opportunity for on campus observational experiences will be provided. 1 lecture, 1 credit

## ALH-200 Health Career Seminar

 is designed to provide the student with experience in a clinical setting. It is an opportunity for a student to integrate critical thinking skills with clinical education under professional guidance in a college approved work environment. Students will learn how to use various available resources for collecting medical data for medical case studies presentations.1 lecture, 120 hours of clinical experience in a hospital setting, 2 credits This course is offered only in
Summer Session II.
Prerequisite: ALH-100

## ALH-463 Co-op Work 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 lecture, plus 180 minimum hours work experience distributed over the semester, 3 creditsPrerequisite: 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 American Language

 Foundations: Grammar (Part A)is a course for international 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 lectures, 3 non-degree credits Corequisite: ALP-005

## ALP-005 American Language

 Foundations: Grammar (Part B) provides students with continued work on the most basic structures of English. 3 lectures, 3 non-degree credits Corequisite: ALP-004
## ALP-006 American 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 lectures, 3 non-degree credits Prerequisite or Corequisite: ALP-005
## ALP-007 American 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 learned in American Language Foundations: Grammar and Reading. 3 lectures, 3 non-degree credits Prerequisite or Corequisite: ALP-005
## ALP-041 American Language I:

 Grammar (Part A) introduces students to the basic grammar of the English simple sentence, with emphasis on verb tenses. 3 lectures, 3 non-degree credits Prerequisite: ALP-005 Pre- or Corequisites: ALP-042, ALP006, ALP-007ALP-042 American 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 lectures, 3 non-degree credits Prerequisite: ALP-005
Pre- or Corequisites: ALP-041, ALP006, ALP-007

ALP-043 American Language I: Writing provides students with carefully guided exercises in the writing of English sentences and paragraphs. 3 lectures, 3 non-degree credits Prerequisites: ALP-007
Pre- or Corequisites: ALP-042

## ALP-044 American 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 lectures, 3 non-degree credits Prerequisites: ALP-006Pre- or Corequisites: 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 computer assisted learning program is provided on an individual, prescriptive basis. 1 lecture, 1 non-degree creditALP-051 American 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, modal verbs, and adverbs, and students are introduced to dependent clauses. 3 lectures, 3 non-degree credits Pre- or Corequisites: ALP-052, ALP043, ALP-044

## ALP-052 American 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 lectures, 3 non-degree credits Pre- or Corequisites: ALP-051, ALP043, ALP-044ALP-053 American Language II: Writing gives students work on both guided and free writing exercises at the paragraph level.
3 lectures, 3 non-degree credits
Prerequisite: ALP-043
Pre- or Corequisite: ALP-052
ALP-054 American Language II: Reading emphasizes reading for content and helps students develop their inferential skills on reading material up to the 3,000 word vocabulary level.
3 lectures, 3 non-degree credits
Prerequisite: ALP-044
Pre- or Corequisite: 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 computerassisted learning program is provided on an individual, prescriptive basis. 1 lecture, 1 non-degree creditALP-061 American Language III: Grammar (Part A) completes the study of the passive voice, of modal verbs, and compound sentences and begins a complete survey of dependent clauses in the English sentence. 3 lectures, 3 non-degree credits
Pre- or Corequisites: ALP-062, ALP053, ALP-054

ALP-062 American Language III: Grammar (Part B) completes the
study of all the phrasal and clausal structures normally used in English sentences. 3 lectures, 3 non-degree credits
Pre- or Corequisites: ALP-061, ALP-
053, ALP-054

ALP-063 American Language III: Writing provides students with intensive practice in the writing of paragraphs and provides a transition to college-level writing with an introduction to the essay. 3 lectures, 3 non-degree credits Prerequisites: ALP-053
Pre- or Corequisite: 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 vocabulary level. 3 lectures, 3 non-degree credits Prerequisites: ALP-054
Pre- or Corequisite: ALP-062

## ALP-065 Directed Studies in American 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 lecture, 1 non-degree credit

## ANT - ANTHROPOLOGY

## ANT-100 Introduction to

 Anthropology offers a comprehensive approach to the study of cultural diversity. The course introduces students to the four fields of anthropology: socio/cultural anthropology, archaeology, linguistics, and physical/biological anthropology. Introduction to Anthropology emphasizes behaviors, similarities and differences in adaptations, and variations in current and past human populations.3 lecture, 3 credits
\}General Education Course
\}Diversity Course

## 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 lectures, 3 credits\}General Education Course \}Diversity Course

ART - ART
ART- 101 Introduction to Art and Visual Culture trains students in the analysis of images and aesthetic objects and considers issues regarding art production, viewer response, and art in society. A spectrum of fine art, decorative arts, and commercial design from diverse cultures is presented in a nonchronological format through illustrated lectures, discussions, and independent visits to exhibitions. Techniques of visual and thematic analysis are applied to exemplary works from world cultural history and contemporary life.
3 lectures, 3 credits
JGeneral Education Course

## ART-102 History of Art and Visual Culture to 1400 is a

 chronological survey of art and visual culture, western and non-western, from the Mesopotamian period through the Middle Ages. In a lecture and discussion format, selected works of sculpture, architecture, and painting, as well as decorative utilitarian objects made by peoples in Europe, the Middle East, India, Asia, and A frica are studied both for their styles and materials and their relation to politics, religion and patronage. 3 lectures, 3 credits\}General Education Course

## ART-103 History of Art and

 Visual Culture 1400-1900 is a chronological survey of art and visual culture, western, and non-western. Selected works of painting, sculpture, architecture, drawing, printmaking, and decorative utilitarian objects made by peoples in Europe (Renaissance to PostImpressionism), Asia, North and South America, India and Africa are studied both for their styles, materials, and techniques and their relation to history, society, religion, patronage, politics and modernity. 3 lectures, 3 credits\}General 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 lectures, 3 credits

## ART-105/CIN-150 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; Japanese animation; the commerce of animation, including discussion of the studio system; involvement of the avant-garde with animation; animation from Europe; and the development of computer animation techniques.
3 lectures, 3 credits

## ART-122 Two-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 lectures, 2 labs, 3 credits
ART-123 Life Drawing 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 lectures, 2 labs, 3 credits
ART-124 Drawing Fundamentals teaches free and schematic drawing skills necessary for advanced studio applications in the visual arts. 2 lectures, 2 labs, 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 knowledge of mathematics or programming is required. 2 lectures, 2 labs, 3 creditsART-181 Photography I introduces camera handling and basic black and white darkroom techniques. Topics covered 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 lectures, 2 labs, 3 credits

ART-223 Life Drawing II further advances the study of the human figure by refining the studio skills and ideas explored in Life Drawing I. 2 lectures, 2 labs, 3 credits Prerequisite: ART-123

ART-226 Letterform and Type is
the study of typographic design, history, and function, and appropriate usage.
2 lectures, 2 labs, 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 lectures, 2 labs, 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 lectures, 2 labs, 3 credits
Prerequisite: ART-227
ART-259 Computer Graphics for the Web Developer is an introduction to select software packages that increase a Web 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 JPEG and GIF formats; using fonts; working with animations and video for the Web utilizing GIF, Quicktime and Flash animations; and troubleshooting technical problems. 2 lectures, 2 labs, 3 credits Prerequisite: ART-126

## 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 lectures, 2 labs, 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 lectures, 2 labs, 3 credits
Prerequisites: ART-260, ART-287

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 freelancers and transfer/graduate aspirants alike. Topics covered include: current portfolio and presentation types, interview techniques, writing resume and cover letters, how artwork is priced, business and legal practices for commissioned artwork, employment issues, salaries and freelance prices. 1 lecture, 2 labs, 2 credits Prerequisite: M inimum of 18 of credits 200 -level ART courses or 15 credits of 200 -level ART courses and ART-181

ART-281 Photography II refines and further explores techniques and ideas presented in Photography I. Emphasis is on the relationship between 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 35mm SLR camera with manual override is required.
2 lectures, 2 labs, 3 credits Prerequisite: ART-181

## ART-284 Digital Photography

is designed for students with a basic understanding of computer graphics to gain knowledge of digital photography and photographic manipulation. Students will create art using a variety of photographic processes. Through hands-on assignments, slide presentations, critiques, readings, and exhibitions, students will engage with and build upon the artistic and technical possibilities created by extending photography into the digital realm. Digital cameras, scanners, printers, and computers will be available for classroom use.
2 lectures, 2 labs, 3 credits
Prerequisite: ART-126, or equivalent

## *ART-287 Computer Layout I is

 a course designed for students know ledgeable in typography wishing to expand their skills in a handson creative manner. Students design and set type for advertising, publishing and corporate business problems. 2 lectures, 2 labs, 3 credits Prerequisite: ART-226* Macintosh computers are used in these courses.
** Custom workstations running Windows XP are used in these courses.
*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 lectures, 2 labs, 3 credits Prerequisites: ART-287, ART-289 or ART-297


## *ART-289 Computer 2D

Illustration explores the essential techniques for creating two-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 lectures, 2 labs, 3 credits
Prerequisite: 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 software interface, to audio/video capture, to special effects, editing, and output. Aesthetic issues emphasize innovative approaches to sequential organization of thematic materials. 2 lectures, 2 labs, 3 credits
Prerequisites: ART-126

## **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 ART293, the possibilities for incorporating 3D animations into their projects are presented.
2 lectures, 2 labs, 3 credits
Prerequisite: ART-290
**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 3D environment using proper lighting, camera setup, 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 lectures, 2 labs, 3 credits Prerequisite: 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 lectures, 2 labs, 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 bit-mapped illustrations. 2 lectures, 2 labs, 3 credits Prerequisite: ART-126

## *ART-298 Interactive

 Multimedia teaches the principles of building illustrations and photographs into time-based computer visuals with sound. Students will create, assemble, and animate interactive media for distribution on CDROM and the Web.2 lectures, 2 labs, 3 credits
Prerequisite: ART-126
> * Macintosh computers are used in these courses.
> ** Custom workstations running Windows XP are used in these courses.

## ART-462-463 Co-op Work

 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 Bergen. Student's work experiences are supervised by Bergen faculty members. Co-op jobplacement assistance is available through the Co-op office.ART-462 1 lecture, plus 120 minimum hours work experience distributed over the semester, 2 credits Prerequisite: ART-260
ART-463 1 lecture, 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 awareness 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 lectures, 3 labs, 4 credits
JGeneral Education Course
BIO-103 The Human Body is a one-semester course that is concerned with basic chemistry, the human cell, tissues, and the musculoskeletal, 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 include microscopy, dissection, and anatomical and physiological experiments that complement the lecture. 3 lectures, 3 labs, 4 credits JGeneral Education Course

BIO-104 Microbiology 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 lectures, 3 labs, 4 credits
\}General Education Course

## 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 lectures, 3 labs, 4 credits JGeneral 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 biodiversity, pesticides, solid waste problems and an extensive review of energy problems and their solutions. Laboratories include measurements of various environmental pollutants, analysis of environmental parameters and descriptive and practical reinforcement of lecture material.3 lectures, 3 labs, 4 credits
JGeneral 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 lectures, 3 labs, 4 credits
\}General 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 conditions are emphasized, as well as the interrelationships of organs and organ systems.
Dissection is required.
3 lectures, 3 labs, 4 credits

## BIO-119 Intensive Wolf Study

 deals with an organism that represents the conflicts between humans and wildlife management issues. Taught at the International Wolf Center in Ely, Minnesota, during the winter 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 credits

## BIO-130 People-Plant

Relationships explores the effects of plants on biological organisms that influence human economic, social and psychological behavior. The course will focus on two major themes: 1) plants as sources of food, shelter, clothing, drugs, and industrial raw material; and 2) the influence of plant life on human cultural diversity, biotechnology, medi-
cine, and conservation efforts.
3 lectures, 3 labs, 4 credits
JGeneral Education Course
BIO-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 people's ecological and economic dependence upon plants. The course content will be presented through lectures, demonstrations, and laboratory exercises. 3 lectures, 3 labs, 4 credits JGeneral Education Course

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 lectures, 3 labs, 4 credits
Prerequisites: BIO-101, BIO-203
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, Japanese madeka fish, frogs, and chick embryos, as well as microscopic examination of the various sections of the embryos. 3 lectures, 3 labs, 4 credits Prerequisites: BIO-101, BIO-203

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 flowering plants, and investigate the biology of invertebrate and vertebrate animals. Laboratory exercises are provided to complement the lectures. 3 lectures, 3 labs, 4 credits Prerequisite: BIO-101 General Education Course

## BIO-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 lectures, 3 labs, 4 credits
Prerequisite: BIO-109 with a grade of $C$ or better.
\}General Education Course

## BIO-210 Introduction to

 Biotechnology is designed to give students both a theoretical background and a working know ledge of the instrumentation and techniques employed in a biotechnology laboratory. Emphasis will be placed on the introduction of foreign DNA into bacterial cells, as well as the analysis of nucleic acids (DNA and RNA) and proteins.3 lectures, 3 labs, 4 credits
Prerequisite: BIO-101

## BIO-211 Introduction to

 Bioinformatics is designed to give students both a theoretical background and a working knowledge of the techniques employed in bioinformatics. Emphasis will be placed on biological sequence (DNA, RNA, protein) analysis and its applications. 2 lectures, 2 labs, 3 creditsPrerequisites: BIO-101 and BIO-210

## BIO-215 Vertebrate Anatomy

 and Physiology II is a continuation of Vertebrate Anatomy 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 lectures, 3 labs, 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 analysis and report writing will also be stressed.
3 lectures, 3 labs, 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 inhouse lab exercises, field experiences, analysis of data, group projects and report writing. 3 lectures, 3 labs, 4 credits
Prerequisites: BIO-101, BIO-203

## BIO-229 Tropical Marine

Ecology covers characteristics of populations, communities, and ecosystems found in tropical regions. Taught at the Keys Marine Laboratory in Long Key, Florida, during the summer semester, students study coral reef structure and ecology, the intertidal zone, mangrove and terrestrial communities, interstitial organisms, and atrophic relationships. Lab sessions include field experiences, group projects and report writing.
60 hours, 4 credits
Prerequisites: BIO-101, BIO-203

## BNF - BANKING AND FINANCE

BNF-101 Principles of Banking presents the fundamentals of bank and financial services functions in a descriptive fashion so that the beginner banker may acquire a broad and operational perspective. Topics considered include fundamentals of negotiable instruments, contemporary banking issues, and developments within the banking industry. 3 lectures, 3 credits

BNF-102 Personal Finance and Money Management provides students with a basic understanding of personal finance so that they may properly manage their own financial affairs. Topics include: financial planning, budgeting and income taxes; managing savings plans, credit cards and debt problems; renting vs. buying; health, disability and life insurance; investing in stocks, bonds and mutual funds; and retirement planning, wills and estate planning. 3 lectures, 3 credits

BNF-201 Principles of Finance provides the beginning student with an awareness 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 lectures, 3 credits
Prerequisite: ACC-101 or ACC-110, BUS-101, or by permission of the Department Head.

## BNF-202 Asset Management

 provides an overview of the asset managment industry, the products and services it provides, and how assets management professionals can help potential and existing customers. Principal topics covered are: types of assets, investment vehicles, agencies, wills and the probate process, customer relationships, guardianships and Powers of Attorney, personal trusts and selling, hedge funds, marketing and competition.3 lecture, 3 credits
Prerequisites: BNF-101 or BUS-101 or permission of Department Head.

BNF-203 Cash Management introduces the student to the importance of cash management in business and the basic concepts of cash, credit and collection. Topics include cash management tools, the payments system, international cash management, general uses of credit, use of financial statements and financial ratios to make credit-related decisions, and policies and procedures for handling collectiions. Other topics, such as technology, customer relationship, banking relationship, and finance companies, may be included. 3 lectures, 3 credits Prerequisites: BUS-101 and (ACC101 or ACC-110)

## BNF-207 Principles of Investment and Portfolio

Management 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 lectures, 3 credits Prerequisites: BUS-101 and ACC-101, or by permission of the Department Head.

## BNF-462 Co-op Work

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. Job placement assistance is available through the Co-op Office. 1 lecture; 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 ownership, organization, and management of business; finance; marketing; unions; and government regulations. 3 lectures, 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, consumer credit, and various taxes. 3 lectures, 3 credits Prerequisite: MAT-011, or equivalent by an appropriate placement as a result of the New Jersey College Basic Skills Placement Test (computational sections only), or by permission of the Department Head.
## BUS-105 Business

Communications covers 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 lectures, 3 credits

## BUS-170 Small Business

Management introduces the student to the basic knowledge and skills necessary for managing or owning 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 lectures, 3 credits

## BUS-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 lectures, 3 creditsPrerequisite: 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 lectures, 3 credits
Prerequisite: BUS-101 or by permission of the Department Head.

## BUS-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 lectures, 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 Internet. The course provides a comprehensive perspective of ownership and management of a small business or new venture. 3 lectures, 3 credits Prerequisite: BUS-101 or at least one-year of business experience.

BUS-207 Principles of Business
Management is an introduction to the process through which an organization 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 lectures, 3 credits
Prerequisite: BUS-101

## BUS-208 Human Resources

Management 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 aids, and personal projects.
3 lectures, 3 credits Prerequisite: BUS-101 or by permission of the Department Head.

## BUS-209 Purchasing and Materials Management provides

 an ovenview 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 lectures, 3 credits Prerequisite: BUS-101 or by permission of the Department Head.BUS-210 E-Marketing explores the impact of information technology, specifically, the Internet and World Wide Web, on the marketing of goods and services. Topics include: identification of web-based marketing goals; selection of the appropriate webbased marketing strategy; conducting primary and secondary marketing research; web-design criteria; webbased advertising techniques; revenue streams. Students will develop an integrated Internet marketing plan, including development of a web presence, for an organization.
3 lectures, 3 credits
Prerequisites: (BUS-101 or BUS-170
or BUS-201) and INF-163

## BUS-CHM

BUS-211 Internet Law introduces the student to the complexities of the legal environment in the information age with a special focus on E-commerce. Topics covered include: basic contract law; current and future contract law for E-commerce; contracting and licensing software; torts and cybertorts; privacy and government regulations; intellectual property laws including patents, trade secrets, copyrights and trademarks; and Internet agreements. Students will review and analyze actual cases.
3 lectures, 3 credits
Prerequisites: (BUS-101 or BUS-170) and INF-163

BUS-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 Jersey Court System. 3 lectures, 3 credits
Prerequisite: BUS-101
BUS-234 Business Law II continues the survey of business law and covers sales, consumers rights, bailments, insurance, partnerships, and corporations.
3 lectures, 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 lectures, 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 presented include global business environments, strategies for international management, marketing, finance, and relevant legal and political considerations. 3 lectures, 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 lectures, 3 credits Prerequisite: BUS-101 or by permission of the Department Head.
## BUS-264 International Finance

provides students with an understanding of international 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 lectures, 3 credits Prerequisite: (BUS-202 or BUS -262) and (ACC-101 or ACC-110) OR permission of the Department Head.

## BUS-271 E-Commerce explores

how small and large businesses use the Internet to increase or create their market presence. Students will design and develop a prototype of an electronic enterprise suitable for the Web. 2 lectures, 2 Labs, 3 credits Prerequisite: BUS-101 or 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 lecture, plus 225 minimum hours work experience distributed over the semester.
3 credits
Prerequisite: BUS-201 or BUS-202
or BUS-207 or BUS-208

## BUS-473-474 Co-op Work

 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 work a minimum number of hours for the semester and attend the weekly seminar.BUS-473 1 lecture, Plus 180 minimum hours work experience, 3 credits Prerequisite or Corequisite: BUS-268
BUS-474 1 lecture, Plus 240 minimum hours work experience, 4 credits Prerequisite or Corequisite: BUS-268

## CHM - CHEMISTRY

CHM-100 Introduction to Chemistry is designed to give nonscience majors an awareness 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 lectures, 3 labs, 4 credits Prerequisite: MAT-011 or a passing score on the New Jersey Basic Skills Placement Test (Computational Sections Only).
JGeneral Education Course

## CHM-102 Chemistry in Context

 is a student-centered approach for non-science majors to learn fundamental chemistry and its linkage to consumer issues, public policy, business and international affairs. Core topics taught include chemistry terminology, formulas, reactions, scientific measurements, shapes of molecules, chemical toxicity, green chemistry, consumer chemistry and energy sources. Laboratory activities emphasize fundamental concepts and measurements. Use of scientific and governmental Web sites, papers, poster presentations and discussion groups draw on students' major fields of study. 3 lectures, 3 labs, 4 credits Prerequisite: MAT-011 or equivalent by placement as a result of a basic skills placement test (Computational Sections Only).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 presented. This course does not substitute for CHM-112. 3 lectures, 3 labs, 4 credits Prerequisite: MAT-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 taught in organic chemistry include atomic theory, chemical bonding, chemical reactions, nomenclature, gas laws, and acid-base buffers. The structure and function of the major classes of organic compounds are studied. Topics in biochemistry covered 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 lectures, 3 labs, 4 credits Prerequisites: MAT-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.
JGeneral Education Course

## 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 lectures, 3 credits
Prerequisite: MAT-032 or MAT-035 or equivalent by an appropriate placement as a result of the New Jersey Basic Skills Placement Test and CHM 100, or a passing score on the CHM100 challenge exam. Recommended Corequisite: CHM-141 and MAT-045 \}General Education Course

## CHM-141 General Chemistry

Laboratory I is a course designed to familiarize the student with chemical laboratory techniques through problem solving experiments. It complements material covered in CHM-140. Written lab reports are required.
3 labs, 1 credit
Prerequisite or Corequisite: CHM-140
JGeneral 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 taught in Biochemistry will include carbohydrates, proteins, lipids, nucleic acids, bioenergetics, enzymes, and biosynthetic pathways. Acid-base chemistry will also be studied. 3 lectures, 3 labs, 4 credits Prerequisites: MAT-011 or equivalent by appropriate placement as a result of the NJ Basic Skills Placement Test (Computational sections only), CHM112 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 electrochemistry. 3 lectures, 3 credits
Prerequisite: CHM-140
Recommended Prerequisite: CHM-141
Recommended Corequisite: CHM-241
JGeneral 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 labs, 1 credit
Prerequisite: CHM-140 and CHM-141.
Prerequisite or Corequisite: CHM-240
\}General 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. Molecular modeling is emphasized, particularly with respect to electrostatic potential maps. Practical applications, including syntheses, are studied and carried out in the laboratory. Instrumentation such as UV, IR, NM R, HPLC, and GC/MS are routinely used as qualitative and quantitative tools. 3 lectures, 3 labs, 4 credits Prerequisites: CHM-240 and CHM-241

## CHM-262 Organic Chemistry II

 is a continuation of CHM-260 and includes the study of aromatic and organometallic compounds, spectroscopy, and the chemistry of carbonyl compounds. Topics presented include the theoretical basis for molecular reactivity, molecular modeling, determination of structure with emphasis on spectroscopic methods, mechanisms of chemical reactions, and synthesis of organic compounds. The microscale laboratory emphasizes preparation, purification, and identification of organic compounds. Analysis by IR, GC, GC/MS, NM R, and UV/VIS are integral to experiments. 3 lectures, 3 labs, 4 credits Prerequisite: CHM -260
## CIN - CINEMA

## CIN-140/THR-140 Introduction

to the Cinema is a study of film as an art form. The course is designed to awaken 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 lectures, 2 labs, 3 credits
JGeneral Education Course

## CIN-150 Special Topics in

Cinema I permits specialized topics in cinema to be studied as a part of more general courses. Students may repeat this course for separate credit. Topics may include, but are not limited to, Women in Cinema, History of Animation, and World Cinema. 3 hours, 3 credits

CIN-240/THR-240 The Classic
Cinema is an in-depth study of the style, philosophy, and significance of selected directors and films.
3 lectures, 3 credits
Prerequisite: CIN-140/THR-140

## CIN-250 Special Topics in

 Cinema II permits specialized topics in cinema to be studied as a part of more general courses. These courses require that students have had some experience using basic cinema terminology (e.g., shot structure, camera movement) through a 100 Level Cinema course. Students may repeat this course for separate credit. Topics may include, but are not limited to, Major Filmmakers,Documentary Cinema, Avant-Garde Cinema, Classic Cinema and Film Noir. 3 hours, 3 credits
Prerequisite: CIN-140/THR-140 or CIN-150

## CIS - COMPUTER SCIENCE

Also see courses listed under INF (Information Technology)

## CIS-158 Introduction to

 Computer Science is intended for students who are interested in an algorithmic approach to problem solving using computers and their applications. Topics presented include terminology used in the computer field, introduction to computer systems and their applications. Students will work with various software packages on a microcomputer. 2 lectures, 2 labs, 3 credits Prerequisite: MAT-031/032 or MAT-035. (Business students should take INF-101) JGeneral Education Course
## CIS-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 CIS-266 Computer Programming:Visual BASIC. 2 lectures, 2 labs, 3 credits Prerequisite: MAT-031/032 or M AT-035 or MAT-045 or equivalent by testing. \}General Education CourseCIS-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 lectures, 2 labs, 3 credits
Prerequisite: MAT-031/032 or MAT035 or MAT-045
\}General Education Course By permission of the Department Head or the Computer Science Coordinator, properly prepared students may instead register for CIS265 and/or CIS-271.

CIS-265 C++ Programming II is a continuation of CIS-165 C++ Programming I. Topics considered include functions; structured programming principles; pointer arithmetic; multidimensional arrays; fundamental sorting and searching algorithms; structures; unions; sequential and random access file processing algorithms; and the runtime behavior of programs. 3 lectures, 1 lab, 3 credits Prerequisite: CIS-165 or by permission of the Department Head or the Computer Science Coordinator.

## CIS-266 Computer

Programming: Visual BASIC is an introduction to a programming tool for developing user-friendly Windows 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 lectures, 1 lab, 3 credits Prerequisite: CIS-163 or CIS-165 or by permission of the Department Head or the Computer Science Coordinator.
\}General Education Course

## CIS-COM

CIS-270 Programming for
Scientific Applications is a computer programming language course with emphasis on mathematical, scientific, and engineering applications using structured programming principles. Topics covered include data types, specifications, fixed and floating point arithmetic, input and output techniques, multidimensional arrays, external functions and subroutines. 2 lectures, 2 labs, 3 credits Prerequisites: MAT-180 or by permission of the Department Head or the Computer Science Coordinator.

## CIS-271 Computer Organization

 and Assembly Language is a study of the interactions between hardware and software 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 instructions, addressing formats, addressing modes, and the fundamentals of assembly language programming. 2 lectures, 2 labs, 3 credits Prerequisites: CIS-165 or by permission of the Department Head or the Computer Science Coordinator.
## CIS-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 lectures, 1 lab, 3 credits Prerequisite: CIS-265 with a grade of $C$ or better.
## CIS-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, normalization theory, data definition languages and query facilities, data integrity and security, and programming language interfaces. Students use a DBMS to develop an actual database. 3 lectures, 1 lab, 3 credits Prerequisite: CIS-265 or CIS-266 or by permission of the Department Head or the Computer Science Coordinator.
## CIS-287 Object-Oriented

 Programming is an introduction to the object-oriented approach to program development. Topics considered include classes and their implementation, static members, friend functions, composite classes, functions and operator overloading, inheritance, polymorphism and an introduction to object-oriented analysis and design.3 lectures, 1 lab, 3 credits Prerequisite: CIS-265 or by permission of the Department Head or the Computer Science Coordinator.

## CIS-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 lectures, 4 credits Prerequisite or Corequisite: CIS-265 or by permission of the Department Head or the Computer Science Coordinator.
## CIS-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 management, data specification, data flow diagrams, logical data modeling, process specification, structure charts, design techniques, design criteria, and packaging. 3 lectures, 3 creditsPrerequisite or Corequisite: CIS-277 (Business students take INF-208) or by permission of the Department Head or the Computer Science Coordinator.

## CIS-461-463 Co-op Work

 Experience (Computer Science) are elective courses designed to provide the student with part-time work experience in the field of computer science. The courses offer students opportunities to gain additional expertise and knowledge under professional guidance in industrial or business settings. In addition, students are required to attend a weekly one-hour seminar.The courses are supenvised by a faculty member who must approve all student placements. $\mathrm{Co}-\mathrm{op}$ job placement assistance is available through the Co-op office.

CIS-461 1 lecture plus 60 minimum hours work experience distributed over the semester, 1 credit CIS-462 1 lecture plus 160 minimum hours work experience distributed over the semester, 2 credits CIS-463 1 lecture plus 220 minimum hours work experience distributed over the semester, 3 credits Prerequisites: CIS-271 and MAT-281

## COM - MASS 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 lectures, 3 credits
\}General Education Course
COM-103 Introduction to Radio and Television Broadcasting is a study of American broadcasting and its historical antecedents. This course is designed to survey the technical, economic, regulatory, aesthetic, and philosophical bases of broadcasting. Current production techniques utilized in radio and television are examined.
3 lectures, 3 credits
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 lectures, 2 labs, 3 credits

## COM-106 TV Production is a

 practical, hands-on course that is designed to give the student experience 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 videotape editing. 2 lectures, 2 labs, 3 creditsCOM-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. 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 lectures, 2 labs, 3 credits

## COM-201 Introduction to

Journalism 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 are considered.
3 lectures, 3 credits
Prerequisite: WRT-101

## COM-203 Print Journalism

Production is a hands-on course in which students apply principles and skills necessary for the production of newspapers and magazines. This course covers such topics as formatting, layout design and printing techniques.
2 lectures, 2 labs, 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 lectures, 3 credits Prerequisite: COM-105 or by permission by the Department Head.
## COM-206 Writing for the Mass

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 Web. Public relations writing and preparing advertising copy are also covered.
3 lectures, 3 credits
Prerequisite: WRT-101
Corequisite: 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 public affairs program. A functional awareness of all factors involved in the production of a series on a regular basis is developed.
3 lectures, 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 preproduction 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 lectures, 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, advisement for coverage, and press kits for target audiences. 3 lectures, 3 credits
Prerequisite: WRT-101

## COM-211 Video Post-Production

is a hands-on course designed to train students in advanced post-production techniques utilizing non-linear computer based editing. Audio sweetening, computer graphics, and animation will be discussed.

## 3 lectures, 3 credits

Prerequisite: COM-106 or by permission by the Department Head.

## COM-461-464 Co-op Work

 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, networks, production houses, and cable TV operations. Available for 1 to 4 credits. Job placement assistance is available through the Co-op office.COM-461 1 lecture, plus 60 minimum hours work experience distributed over the semester, 1 credit COM-462 1 lecture, plus 120 minimum hours work experience distributed over the semester, 2 credits COM-463 1 lecture, plus 180 minimum hours work experience distributed over the semester, 3 credits COM-464 1 lecture, plus 240 minimum hours work experience distributed over the semester, 3 credits Prerequisites: COM-105 or COM106 or by permission of the Department Head.

## COM-471-473 Co-op Work Experience (Journalism) gives

 students work experience in a newspaper office and provides the opportunity to acquire and apply skills in news writing, photojournalism, layout and/or newspaper production. Work sites must be approved by the faculty coordinator. Co-op job placement assistance is available through the Co-op office.COM-471 1 lecture, plus 60 minimum hours work experience distributed over the semester, 1 credit COM-472 1 lecture, plus 120 minimum hours work experience distributed over the semester, 2 credits COM-473 1 lecture, plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: COM-201 or by permission of the Department Head.

## CRJ - CRIMINAL JUSTICE

## CRJ-101 Introduction to

Criminal Justice analyzes the history, development, and function of the police in a free society. A primary concern in the course is the relationship between the various components of the criminal justice system and the effectiveness of the system as a mechanism for social control. 3 lectures, 3 credits

## CRJ-102 Introduction to

Corrections is an overview of the history and philosophical foundations of the American correctional system. This course examines the organization and operation of the correctional system and correctional treatment programs ranging from pre-trial diversion to post-incarceration procedures. The course analyzes current issues and problems in corrections such as social control within prisons, legal rights of prisoners, and alternatives to imprisonment. 3 lectures, 3 credits

CRJ-103 Criminal Law is a study of the philosophy and development of the law and development of 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. CRJ-101 Introduction to Criminal Justice is highly recommended before taking this course. 3 lectures, 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 basics of administering a police organization such as recruitment and selection of personnel, training, fiscal and planning operations, and auxiliary and staff functions are reviewed. Changes relative to socioeconomic, political, and technological realities are explored. CRJ101 Introduction to Criminal Justice is highly recommended before taking this course.3 lectures, 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. SOC-101 Introduction to Sociology is highly recommended before taking this course.
3 lectures, 3 credits

## CRJ-108 Topics in Criminal

Justice is an introductory study of major topics in policing, corrections, and the courts, including but not limited to such topics as judicial misconduct, law enforcement stress management, terrorism, criminalistics, prison gangs, sex offenders, domestic violence, and suicide by police. 3 lectures, 3 credits

CRJ-109 Contemporary Issues in Policing explores the history and scope of the relationship between 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 lectures, 3 credits

## CRJ-110 Basic Supervision

(Criminal Justice) 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 lectures, 3 credits
CRJ-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 interviewing 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 lectures, 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 lectures, 3 credits

CRJ-113 The Juvenile Justice Process examines the history, philosophy, and structure of the juvenile justice system with emphasis on changes fostered by US 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 alternatives to formal court referral.
3 lectures, 3 credits

## CRJ-114 Correctional

Administration is an introduction to the organization and administration of correctional institutions. The course examines both theoretical and practical aspects of correctional administration and focuses on such issues as decision-making, ethical values, human relations, and authority. CRJ-102 Introduction to Corrections is highly recommended before taking this course.
3 lectures, 3 credits
CRJ-115 Correctional Law is an overview of the policies and practices that govern correctional institutions. The course examines current legal issues and many court cases that directly impact on prisons and prisoners. CRJ-102 Introduction to Corrections is highly recommended before taking this course.
3 lectures, 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 betw een 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 nontechnical manner.
3 lectures, 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. home loss-control technology, electronic security systems, disaster planning, and fire protection and safety are also reviewed.
3 lectures, 3 credits

## CRJ-461-463 Co-op Work Experience (Criminal Justice)

 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-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 Cooperative Education Office.CRJ-461 1 lecture; plus 60 minimum hours work experience distributed over the semester, 1 credit CRJ-462 1 lecture; plus 120 minimum hours work experience distributed over the semester, 2 credits CRJ-463 1 lecture; plus 180 minimum hours work experience distributed over the semester, 3 credits

## 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 supervised by a faculty member, and job placement assistance is available through the Cooperative Education Office. 1 lecture; 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 labs, 1 credit

DAN-103 Modern Dance is a study of the technical and choreographic skills of modern dance. Students are assisted in being individually creative through movement. 2 labs, 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 labs, 1 credit

DAN-105 Jazz Dance is a study of various styles, techniques, and vocabulary in the idiom of jazz dance. 2 labs, 1 credit

## 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 labs, 1 credit

## DHY - DENTAL HYGIENE

Since September 2003, dental hygiene applicants are required to pass the HOBET exam for admittance into the program.

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 lecture, 6 labs, 3 credits
Corequisite: 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 lecture, 4 labs, 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 lectures, 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 lectures, 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 lecture, 8 labs, 3 credits
Prerequisites: BIO-104, BIO-109, DHY-101, 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 lecture, 12 labs, 4 credits Prerequisites: BIO-104, BIO-209, DHY-201, 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 lecture, 12 labs, 4 credits Prerequisites: DHY-200, DHY-202,
DHY-204, and DHY-209
DHY-204 Dental Materials 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 lectures, 4 labs, 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 lectures, 3 labs, 3 credits
Prerequisites: BIO-104, $\mathrm{BIO}-109$,
DHY-101, 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 lectures, 3 creditsPrerequisites: 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 lectures, 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 diseased states. Preventive therapies will be introduced.
1 lecture, 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, DHY-205, 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 lectures, 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 lecture, 1 credit
Prerequisite: DHY-209
DFT - DRAFTING \& DESIGN AIA Provider,
College is regis-
tered as a Premier
provider with the American Institute of Architects, Continuing Education System (AIA/CES). We are committed 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 awareness 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 lecture, 3 labs, 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 lectures, 2 labs, 3 credits Prerequisite: DFT-107


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, engineering design, and computer graphics applications are covered.
2 lectures, 2 labs, 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. On-site 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 lectures, 2 labs, 3 credits Prerequisite: DFT-207, DFT-208

Din
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 setup, line drawing, editing, layer creation, display features, and dimensioning.
2 lectures, 2 labs, 3 credits
Prerequisite or Corequisite: DFT-107

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 drawings, 3D with AutoShade, menu customization, LISP programming and architectural drawings using AEC software. At the conclusion of this course the individual should have the general skills necessary to adapt to most CAD software. 3 lectures, 5 labs, 5 credits Prerequisite: DFT-210
 Drafting III provides continued study of advanced CAD technologies, giving students a complete hands-on experience with three dimensional photorealistic and presentation graphics.
2 lectures, 2 labs, 3 credits
Prerequisite: DFT-211

## DFT-215 Mechanical

Building Systems I is an introduction to plumbing and HVAC equipment and systems. Nomenclature, specifications, layout drawings, plans, details, sections, elevations, and isometric drawings are developed. 2 lectures, 2 labs, 3 credits Prerequisites: DFT-207 and DFT-208
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Building Systems II continues the work of Mechanical 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 lectures, 2 labs, 3 credits
Prerequisite: DFT-215

## DFT-220 Electrical Drafting and

Design is intended for the student interested in the specialized field of electrical drafting. The course introduces, from the design side, those considerations necessary to prepare drawings for the construction of electrical systems over a broad range of applications. 2 lectures, 2 labs, 3 credits Prerequisite: DFT-262

## NS 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 lectures, 2 labs, 3 credits Prerequisites: DFT-207 and DFT-208 Corequisite: DFT-265Dis Design discusses design theory and principles. Commercial building and site design, analysis and development are stressed and explored through case studies and building design projects. 2 lectures, 2 labs, 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 lectures, 2 labs, 3 credits Prerequisites: DFT-207 and DFT-208 Corequisite: DFT-262

新 Methods of Construction introduces 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 lectures, 2 labs, 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 lectures, 2 labs, 3 credits Prerequisite: DFT-207
## DFT-461-463 Co-op Work

 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 Co-op courses.DFT-461 1 lecture, Plus 60 minimum hours work experience distributed over the semester, 1 credit DFT-462 1 lecture, Plus 120 minimum hours work experience distributed over the semester, 2 credits DFT-463 1 lecture, Plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: DFT-207 or by permission of the Department Head.

## DMS - ULIRASOUND/DIAGNOSTIC MEDICAL SONOGRAPHY

## DMS-101 Ultrasound Physics

and Instrumentation I will provide the student with the relevant fundamental physical principles as well as the basic instrumentation used in diagnostic ultrasound. Modes of operation, imaging and display techniques that relate to high-frequency sound production will be stressed.
1 lecture, 3 labs, 2 credits Corequisites: DMS-102, DMS-113, DMS-115

## DMS-102 Clinical Medicine \&

Patient Care will enable the student to provide quality patient care while demonstrating the application of technical skills needed to perform ultrasound procedures. Medical term definitions will also be presented and practical applications of medical terminology will be covered. An understanding of pertinent emergency care, patient psychology, medical ethics and management skills will be presented. 2 lectures, 2 credits Corequisites: DMS-102, DMS-113, DMS-115

## DMS-113 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 findings, as they pertain to the pathophysiology of abdominal organs and systems is presented. Normal and abnormal tissue patterns are included within the discussions. Students will practice scanning in the lab in preparation for objectives required in Ultrasound Clinic I.
2 lectures, 3 labs, 3 credits Corequisites: BIO-109, DM S-101, DMS-102, DMS-115

## DMS-115 Cross-Sectional

Anatomy involves the study of the structure and function of human anatomy in the cross sectional mode. Topics will include the circulatory system, abdomen, thorax, cranium, pelvis, reproductive system and retroperitoneum. Fetal cross-sectional anatomy will also be presented. The course content will be presented through lectures, discussion, and laboratory exercises.
3 lectures, 3 labs, 4 credits Corequisites: BIO-109, DMS-101, DMS-102, DMS-113

## DMS-116 Introduction to Vascular Principles and Instrumentation is designed to

 introduce the student to the fundamentals of vascular technology. Vascular Doppler physics, blood flow hemodynamics and terminology pertaining to the field, will be demonstrated. Non-imaging testing will be introduced. HIPPA laws, OSHA regulations, quality assurance and universal precautions will be reviewed and implemented.2 lecture, 2 credits
Corequisite: BIO-109

## DMS-117 Introduction to

 Vascular Imaging is designed to introduce the student to the sonographic imaging of the human vasculature. Gross and sectional anatomy of vascular structures and the surrounding regions will be introduced. The student will learn how to correspond the anatomy and the ultrasound image. Fundamentals of patient care, responding to patient needs, obtaining patient history, and documentation of physical findings, will be demonstrated. Patient education will also be discussed. The student will be required to pass limited vascular ultrasound exams.1 lecture, 3 labs, 2 credits
Corequisite: BIO-109

## DMS-201 Ultrasound Physics

 and Instrumentation II is a continuance of the study of the physical principles of diagnostic ultrasound. Emphasis will be placed on hemodynamics, Doppler ultrasound, image artifacts, bioeffects, safety, and quality assurance. Advanced instrumentation will also be presented.1 lecture, 3 labs, 2 credits
Prerequisites: DMS-101, DM S-102, DMS-113, DMS-115
Corequisites: DMS-204, DMS-205, DMS-213, DMS-218

DMS-204 Introduction to Medical Imaging is a comprehensive course pertaining to different procedures that exist in the Radiology Department. It is an introduction to different modalities and how they interrelate to one another. Special tests will be introduced in each modality with strong emphasis on correlation with ultrasound exams. The course will be divided into certain organ systems and the modalities that are useful in determining certain abnormalities. Students will be shown how different modalities utilize patient testing and the importance of the modality. Topics are chosen according to certain ultrasound procedures. 1 lecture, 1 credit.
Prerequisites: DMS-102, DMS-113, DMS-115;
Corequisites: DMS-201, DM S-205, DMS-213, DMS-218

## DMS-205 Obstetric and

 Gynecological Sonography is a course designed to familiarize students with the pathophysiology of the female reproductive system, gynecological anomalies and normal and abnormal first trimester pregnancy. Pelvic scanning protocol will also be discussed and sonographic interpretation will be utilized. Recognizing the normal and abnormal sonographic patterns in gynecology and first trimester pregnancy will be covered. Pathological and/or physiological data for the interpretation by physicians is stressed. The sonographic criteria for evaluation of the gravid uterus and fetus will be demonstrated.2 lectures, 3 labs, 3 credits Prerequisites: BIO-109, DMS-102, DMS-113, DMS-115 Corequisites: DM S-201, DM S-204, DMS-213, DMS-218

## DMS-213 Abdominal Sonography II

is a continuance of Abdominal
Sonography I in studying abdominal structures where an emphasis is placed on specialty organ examinations. A knowledge of the diagnosis, history, and physical findings as they pertain to the pathophysiology of abdominal and small organs is presented. Normal and abnormal tissue patterns are included within this course. Students will practice and master a full abdominal procedure in the lab to prepare them for Ultrasound Clinic II-Abdomen rotation. 2 lectures, 3 labs, 3 credits Prerequisites: BIO-109, DMS-102, DMS-113, DMS-115; Corequisites: DMS-201, DM S-204, DMS-205, DMS-218

DMS-214 Echocardiography I is an introduction to cardiovascular principles. Topics covered will be anatomy and physiology, pathophysiology, patient assessment that includes palpation and auscultation of the heart and arteries, cardiovascular medications, surgical intervention and interpretation of electrocardiograms. Students will also learn how to perform a limited echo procedure in an attempt to prepare them for Vascular Practicum IV. 2 lectures, 3 labs, 3 credits Prerequisites: BIO-209, DMS-201, DMS-219 Corequisites: DMS-220, DMS-229

## DMS-218 Ultrasound Clinic I

requires the student to spend two days a week in an approved hospital Ultrasound Department. Students will perform limited abdominal and pelvic procedures under the direct supervision of the supervising sonographer. Students are given specific learning objectives for the rotation. Progress is evaluated according to a competen-cy-based clinical education system. 1 credit, 160 hours
Prerequisites: DMS-101, DMS-102,
DMS-113, DMS-115
Corequisites: DMS-201, DMS-204,
DM S-205, DMS-213

## DMS-219 Ultrasound Clinic II-

Abdomen requires the student to spend five days a week in an approved hospital Ultrasound Department. Students will perform complete abdomen procedures under the direct supervision of the supervising sonographer: Students are given specific learning objectives for the rotation. Progress is evaluated according to a com-petency-based clinical education system. 2 credits, 240 hours
Prerequisites: DMS-204, DMS-205, DMS213, DMS-218

## DMS-220 Ultrasound Clinic III-

 OB/GYN requires the student to spend two days a week in an approved hospital Ultrasound Department. Students will perform pelvic and obstetrical 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, 240 hours
Prerequisites: DMS-219, DMS-205
Corequisite: DMS-226

DMS-221 Ultrasound Clinic IVEchocardiography requires the student to spend two days a week in an approved ultrasound department. Students will perform venous and arterial 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, 240 hours
Prerequisites: DMS-214, DMS-220,
DMS 226, DMS S-229
Corequisite: DMS-227

## DMS-222 Ultrasound Clinic V-

Vascular requires the student to
spend five days a week in an approved ultrasound department. Students will perform venous and arterial procedures under the supervision of the designated clinical instructor. Students are given specific learning objectives for the rotation. Progress is evaluated according to a competency-based clinical education system.
1 credit, 200 hours
Prerequisites: DMS-221, DMS-227 Corequisite: DM S-230

DMS-226 OB Sonography II is a continuance of OB/GYN Sonography designed to familiarize the students with the pathophysiology of the female reproductive pelvic scanning protocol will also be discussed and sonographic interpretation will be utilized in the labs. Normal and abnormal obstetrical patterns will be taught, and emphasis is placed on recognizing the essential sonographic appearance when doing an obstetrical exam in 2nd and 3rd trimester. Chromosomal and congenital anomalies are discussed and the importance of the differential diagnosis. Level II and high risk OB ultrasound are presented. Pathological and/or physiological data for the interpretation by physicians is stressed. The sonographic criteria for evaluation of the gravid uterus, postpartum uterus and the fetus will be demonstrated. 2 lectures, 3 labs, 3 credits
Prerequisites: BIO-209, DMS-205, DMS-219 Corequisites: DMS-214, DMS-220

DMS-227 Echocardiography II is
a continuance of Echocardiography, explaining the normal anatomy and physiology of the adult heart. A more in-depth analysis of the physiology/hemodynamics of the heart chambers and muscles are emphasized. Doppler flow patterns and sonographic evaluation of the abnormal heart will be stressed New techniques as an adjunct tool to Echocardiography will be discussed. Students will perform a complete echo exam in lab in preparation for Vascular Practicum IV. Cardiac measurements of the chambers and muscles will be covered. 2 lectures, 3 labs, 3 credits
Prerequisites: DMS-226, DMS-229
Corequisites: DMS-221, DM S-228

## DMS-228 Advanced Ultrasound

Practices is a course that is designed to explore new specialty techniques in the areas of Abdomen, Obstetrics and Gynecology and Echocardiography. Intraoperative procedures will be discussed in all specialties. Specialized equipment will also be emphasized. The course will also focus on legal and ethical issues in sonography. Review of case presentations will be discussed. Independent learning assignments and various lecture formats will enhance the course. Journal articles will be introduced. Neurosonography will be stressed to include normal and abnormal sonographic findings. 3 labs, 1 credit
Prerequisites: DMS-226, DMS-229 Corequisites: DMS-221, DMS-227

DMS-229 Vascular Imaging introduces the use of diagnostic imaging with the use of Doppler for examining the vasculature of the human body. In this class the student will learn about diseases that affect the circulatory system. The course provides a history of diagnosis and treatment of vascular conditions. In addition, the course gives the student an awareness of alternative diagnostic tools used in conjunction with ultrasound. The student will learn how to perform vascular tests commonly performed in vascular laboratories and develop an awareness of tests that are routinely performed. 1 lecture, 3 labs, 2 credits Prerequisites: BIO-209, DMS-201, DMS-213 Corequisites: DMS-214, DMS-220, DMS-223

DMS-230 Comprehensive Review
will review specialty areas pertinent to sonography in preparation for the ARDMS exam. Emphasis will be placed on ultrasound physics, general and cardiac concentrations. Upon completion of the program, students are eligible to take the ARDMS exams in Abdomen, Ob/Gyn, and Adult Echocardiography. The matrix of ARDMS exam for Ultrasound Physics and Instrumentation, Abdomen, Obstetrics and Gynecology and Adult Echocardiography will be followed. Seventy percent of the matrix on all specialties will be reviewed. The remaining $30 \%$ will be presented in the program courses specifically focused on the specialties mentioned. Students are required to pass the exit examination in all three specialties as a requirement for program eligibility to take the ARDMS exams.

## 3 lecture, 3 credits

Prerequisites: DMS-227, DMS-228 Corequisite: DMS-222

## DMS-231 Essentials in Venous

Ultrasound will provide the student with the in-depth essentials needed for imaging and non-imaging evaluation of the peripheral venous system. Duplex ultrasound and plethysmography will be utilized in the evaluation of venous disease. The student will be able to identify normal and abnormal venous anatomy of the upper and lower extremities, cerebrovascular, and abdomen on ultrasound. Pathogenesis, pathophysiology, signs, symptoms, diagnosis and corrective procedures will be emphasized. The student will learn how to obtain patient history, and correlate the symptoms with the diagnostic findings. The student will gain exposure to other vascular procedures such as venography, grafting and venous mapping. Students will be required to pass various ultrasound exams. 1 lecture, 3 labs, 2 credits Prerequisites: BIO-109, DMS-116, DMS-117
Corequisite: BIO-209

## DMS-ECO

DMS-232 Essentials in Arterial Ultrasound will provide the student with the in-depth essentials needed for imaging and non-imaging evaluation of the perepheral arterial system. Duplex ultrasound and PVR, SBP and plethysmography will be utilized in the evaluation of arterial disease. The student will be able to identify normal and abnormal arterial anatomy of the upper and lower extremeties, cerebrovascular, and abdomen on ultrasound. Pathogenesis, signs, symptoms, diagnosis, surgical and pharmacological treatment will be introduced. Techniques for sonographic post interventions will be demonstrated. The student will learn how to obtain patient history, and correlate the symptoms with the diagnostic findings. Students will be required to pass various arterial diagnostic exams. 2 lectures, 2 labs, 3 credits Prerequisites: BIO-109, DMS-116, DMS-117
Corequisite: BIO-209

## DMS-233 Clinical Experiences I

 requires the student to spend 16 hours per week in an approved hospital vascular laboratory under the direct supervision of a clinical instructor. Students will be given specific learning objectives and must meet the requirements for a competency based clinical education. 1 credit, 240 hoursPrerequisites: DMS-116, DMS-117 Corequisites: BIO-209, DMS-231, DMS-232

## DMS-234 Vascular Clinical

Seminar requires the student to spend 15 weeks in an approved hospital vascular laboratory under the direct supenvision of a clinical instructor. The students will continue to meet the requirements for a competency based clinical education. The students will also attend a series of seminar classes on campus in order to prepare for the vascular registry exam. There will be a review of vascular physics and instrumentation, anatomy and physiology, pathogenesis and pathophysiology. The matrix of the Vascular Physical Principles and Instrumentation and Vascular Technology ARDMS exams will be followed.
3 credits, 400 hours
Prerequisites: DMS-231, DMS-232, DMS-233

## 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 lectures, 3 non-degree credits Corequisite: EBS-015

EBS-015 Skills Practicum I is the corequisite of Developmental Skills I. The objective of this course is to provide an opportunity for the student to apply the skills learned in Developmental Skills I. Instruction is individualized and lessons are drawn from the class activities of Developmental Skills I. This course requires concurrent enrollment in EBS-014 Developmental Skills. 2 lectures, 2 non-degree credits Corequisite: 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 lectures, 3 non-degree credits Corequisite: EBS-017

EBS-017 Skills Practicum II is the corequisite 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 EBS-016 Developmental Skills II. 2 lectures, 2 non-degree credits Corequisite: 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 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 lectures, 3 non-degree credits Corequisite: EBS-024

## EBS-024 English Skills

Practicum is the corequisite 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 lectures, 2 non-degree credits Corequisite: EBS-023

## EBS-031 Directed Studies in

 Writing is a required course for students whose scores on the 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 lecture, 1 non-degree credit Corequisite: WRT-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 essays for 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 lectures, 3 non-degree creditsECO - ECONOMICS
ECO-101 Macroeconomics 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 macroeconomic 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 growth, and the equitable distribution of income.
3 lectures, 3 credits \}General Education Course

ECO-103 Consumer Economics is the study of the consumer's 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 lectures, 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 lectures, 3 credits

ECO-201 Microeconomics is the study of price theory, elasticity, factor markets, market power, competition, pollution, and international trade. 3 lectures, 3 credits Prerequisite: ECO-101
\}General 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 lecture; plus 60 minimum hours work experience distributed over the semester, 1 credit ECO-462 1 lecture; 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 lectures, 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 lectures, 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 lectures, 3 credits

## EDU-124 Curriculum Materials

 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 lectures, 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 lectures, 3 credits

## EDU-130 Infants and Toddlers in

 Early Childhood EducationSettings 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 lectures, 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 psycho-social development of young children, personnel placement in early childhood programs, and school-home communication 3 lectures, 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 lectures, 3 credits
Prerequisite: EDU-120

## EDU-222 Supervised Field Work

 Experience I is a weekly three-hour placement intern 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 Work Seminar I. 3 lectures, 2 creditsCorequisite: 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 lectures, 2 credits
Corequisite: EDU-222

## EDU-224 Supervised Field Work <br> Experience II is a continuation of

Supenvised Field Work Experience I. The
field placement is at a different site with a different age group than that assigned in Supenvised Field Work Experience I.
This course must be taken in conjunction with Field Work Seminar II.
3 hours, 2 credits
Prerequisite: EDU-222
Corequisite: EDU-225

## EDU-225 Field Work Seminar II

is a continuation of Field Work Seminar I. Additional areas considered are certification, job placement, and educational options beyond the A.A.S. Degree.

2 lectures, 2 credits
Prerequisite: EDU-223
Corequisite: EDU-224

## ELC - ELECTRONICS <br> TECHNOLOGY

## ELC-100 Introduction to

Electronics Technology presents an orientation to the various subspecialties within the field, their interrelationships, and their range of applications. The course also covers introduc tory topics in electrical and electronics drafting, computer-aided circuit analysis, and electronic fabrication. 1 lecture, 2 labs, 2 credits

## ELC-101 DC-Circuit Analysis

includes Ohm's and Kirchoff's laws 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 lectures, 3 labs, 4 credits

## ELC-201 AC-Circuit Analysis

introduces sinusoidal inputs and time response of RL, RC, and RLC circuits. Network theorems for ACcircuits are covered, as well as resonance, filters, and pulse response of reactive circuits.
3 lectures, 3 labs, 4 credits
Prerequisite: ELC-101
ELC-203 Electronics I is an introduction to the fundamental concepts and applications of solid-state devices.
3 lectures, 3 labs, 4 credits
Corequisite: 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 power amplifiers, emitter followers, fieldeffect transistors and circuits, thyistors, frequency effects, and op-amps. 3 lectures, 3 labs, 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 two-course sequence coversAM and FM systems, television, and telephone. Digital and data communication will be introduced, and continued in Communication Systems II. 3 lectures, 3 labs, 4 credits Corequisite: 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, radiowave propagation, antennas, microwave systems, satellite communications, fiber-optic systems, and cellular communication systems. 3 lectures, 3 labs, 4 credits Prerequisite: ELC-214

ELC-462 Co-op Work 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 placement assistance is available through the Co-op Office. 1 lecture, 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 (HAZWOPER) 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 lectures, 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 lectures, 3 creditsENV-112 Environmental Health addresses a wide range of environmental issues, including prediction and management of environmental impacts, management of renewable 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 lectures, 3 credits

## ENV-HIS

## 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 powerful and can be used in a variety of ways. Students are able to apply practical know ledge of the environment to everyday personal, business and government related decisions. 3 lectures, 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 towards 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, sewage treatment, bioremediation, and applied microbiology encompassing food microbiology, industrial microbiology and biotechnology. 3 lectures, 3 labs, 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/NJDEP protocol in data collection and analysis, and the application of modern instrumentation to environmental systems. Current trends in environmental technology, such as natural attenuation, waste reduction and environmental engineering are discussed. 3 lectures, 3 labs, 4 credits Prerequisites: CHM-100 or by permission of instructor

## ENV-461-464 Co-op Work

 Experience (Environmental Technology) provides the student with practical, supervised work experience in the various fields of environmental technology. 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 Co-op office.Prerequisites: WRT-101, BIO-101, CHM-100, TEC-180, or by permission of the Department Head.

ENV-461 1 lecture; plus 60 minimum hours work experience distributed over the semester, 1 credit ENV-462 1 lecture; plus 120 minimum hours work experience distributed over the semester, 2 credits ENV-463 1 lecture; plus 180 minimum hours work experience distributed over the semester, 3 credits ENV-464 1 lecture; 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 in space 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 lectures, 3 labs, 4 credits
JGeneral 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 Niño, Ice Age theories, climate explanations for the extinction of the dinosaurs, and past and future climates. Laboratory work features simple analytical and statistical analysis of climate data. 3 lectures, 3 labs, 4 credits JGeneral Education Course

ESC-113 Geology is a study of the solid Earth. Topics include minerals and rocks, weathering and soils, groundwater, 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 vegetation studies, topographic mapping, and review of the geologic calendar. (Not open to students who have taken PHY-106 or the equivalent.) 3 lectures, 3 labs, 4 credits JGeneral Education Course

ESC-114 Meteorology 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, fog, clouds, pressure, rain, snow and the development of air masses, fronts, anticyclones, cyclones, hurricanes, and severe storms. Special topics include pollution and lightning. Labs emphasize sun-weather relationships, weather maps, and forecasting techniques. (Not open to students who have taken PHY-106 or the equivalent.) 3 lectures, 3 labs, 4 credits JGeneral Education Course

## GEO-GEOGRAPHY

GE0-101 World 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 lectures, 3 credits
JGeneral Education Course

## GEO-102 Human Geography

is an introduction to the spatial patterning of human activities and the role of human affairs. This course explores some of the main issues in human/cultural geography including: economic development, industrialization, population distribution, organization of urban and non-urban societies, agriculture, nationalism, meaning of new spaces, and cultural expressions in order to better understand the contemporary world. In addition, the class provides an introduction to various concepts and techniques used by geographers. 3 lecture, 3 credits
JGeneral 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. Major cultural, social, economic, political, and religious developments in the history of the West are surveyed.
3 lectures, 3 credits
\}General Education Course

## HIS-102 History of Western Civilization since the

 Reformation is a study of the Western world from the sixteenth century to the contemporary period. Major cultural, social, economic, political, and religious developments in modern Western history are surveyed. 3 lectures, 3 credits\}General 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 towards 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 lectures, 3 credits
\}General Education Course \}Diversity Course

## HIS-106 History of Modern Europe to the French

 Revolution is an analysis of western European history from the late Middle 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 theNapoleonic era. 3 lectures, 3 credits \}General Education Course

## HIS-107 History of Modern 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 postwar Europe and
America.
3 lectures, 3 credits
\}General 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 lectures, 3 credits
JGeneral Education Course

## HIS-112 United States History

since Reconstruction 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 lectures, 3 credits
\}General 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 1930's. Topics covered include Industrialism, Progressivism, the Great Depression, the New Deal, United States involvement in world affairs, World War I, and the political, social, economic, and cultural development of the United States during this period.3 lectures, 3 credits
JGeneral Education Course
HIS-114 History of 20th Century United States since World War II is a study of the United States from the Second World War to the present. Topics covered include World War II diplomacy, the Cold War, containment, the Vietnam era, détente, 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 lectures, 3 credits
\}General 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 between 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 lectures, 3 credits

HIS-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 lectures, 3 credits JGeneral Education Course \}Diversity Course

## HIS-117 Themes in U.S. History

 (New Jersey and Bergen County) is a study of New Jersey 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 lectures, 3 creditsHIS-121 Modern Asian History is a study of modern China, India, and Japan. 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 Western values and ideas in the 19th and 20th centuries. 3 lectures, 3 credits \}General Education Course \}Diversity Course

## HIS-124 African American History (1877-Present) spans

 from the end of the Reconstruction Era to the present day. Its aim is to write into the historical discourse of all Americans the contributions of African Americans which shaped this country through their distinctive struggles and experiences. 3 lectures, 3 credits \}Diversity Course
## HIS-126 Modern 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 World War, and the social, cultural, political, and economic development of Africa.3 lectures, 3 credits JGeneral Education Course
\}Diversity Course

HIS-130 Latin American 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 lectures, 3 credits
JGeneral 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 relative to these countries are considered.3 lectures, 3 credits
JGeneral 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 Middle 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 M ideast conflicts and to the role of the United Nations in the region. International confrontation and collaboration in the region are examined. 3 lectures, 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, growth, 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 lectures, 3 credits
## HIS-144 Contemporary American

Issues and Problems is a study in a historical context of selected political, social, economic, and diplomatic issues and problems facing the United States in the contemporary world. 3 lectures, 3 credits
JGeneral Education Course

HIS-145 Anatomy of Peace is a study in a historical context of peace and war, particularly in the 20th century. Topics considered include diplomacy and peacemaking, arms control, world organizations, nonviolence, conflict, and conflict resolution. Relevant ethical, economic, biological, social, political, and psychological issues are examined.
3 lectures, 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 US 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. Job assistance is available through the Co-op office.HIS-461 1 lecture, plus 60 minimum hours work experience distributed over the semester, 1 credit HIS-462 1 lecture, plus 120 minimum hours work experience distributed over the semester, 2 credits HIS-463 1 lecture, 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 Management is a study of the fundamental principles of hotel, restaurant, and food senvice operations. Basic managerial and operating functions prevalent in the industry are considered in conjunction with the various job opportunities available. 3 lectures, 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 lectures, 2 labs, 3 credits

## HRM-HRT

## 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 lecture, 4 labs, 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 lecture, 2 labs, 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 lecture, 1 lab, 1 credit

## HRM-108 Computer

Applications for the Hospitality Industry introduces students to computerized recording, forecasting and other analytical procedures used by management to control food and beverage costs.
2 labs, 1 credit

## HRM-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 lectures, 2 labs, 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 lecture, 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 service of various menu items. Students experience all phases of an institutional food service operation through rotation laboratory assignments.1 lecture, 4 labs, 3 credits
Prerequisite: HRM-103

## HRM-203 Beverage Management

 is a study of the history, sources, production, uses, control, and legislation pertaining to alcoholic beverages. Bartending skills and mixology in handson laboratory settings are studied. 1 lecture, 2 labs, 2 creditsPrerequisite: HRM-101
HRM-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 lecture, 2 labs, 2 credits Prerequisite: HRM-101

## HRM-205 Restaurant Service

Management introduces the principles and techniques of waiting tables and doing table setups, and the course includes an analysis of the service management responsibilities associated with the operation of restaurants.
2 lectures, 2 labs, 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 lecture, 4 labs, 3 credits
Prerequisite: 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 lecture, 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, Japanese, M exican, and American cuisine are considered. 2 lectures, 2 labs, 3 credits Prerequisite: HRM-103

## HRM-213 Classical Garde-

Manger 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'oeuvre, and gelatin. 2 lectures, 2 labs, 3 credits Prerequisite: HRM-103

HRM-214 Banquet \& Catering Management introduces students to the skills necessary to be qualified, competent and creative food service specialists.
2 lectures, 2 credits
Prerequisites: 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 lectures, 2 credits
Prerequisite: HRM-101

## HRM-220 Advanced Baking

Techniques continues the theory of baking and the skill of producing baked products. Laboratory work includes elaborate cake and pastry making, showpiece desserts, and delicate marzipan, sugar and chocolate presentations.
2 lectures, 2 labs, 3 credits
Prerequisite: HRM-110

## 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. Job assistance is available through the Co -op office. 1 lecture, plus 179 minimum hours work experience distributed over the semester.2 credits.
Prerequisite: HRM-101

## HRT - HORTICULTURE

HRT-101 Fundamentals of Horticulture is designed to acquaint the student with the multifaceted 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 lecturers from all fields of horticulture will share their views and experiences.
2 lectures, 3 labs, 3 credits

## HRT-102 Plant 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 growth 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 growth will be covered.3 lectures, 3 labs, 4 credits

## HRT-103 Turf and Grounds

Management is the study of turf and plant practices on the residential and commercial sites. Emphasis is placed on the structure and growth habits 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 lectures, 3 labs, 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, growth form, color, texture and habitat requirements, and their uses in the residential and commercial sites will be studied. 1 lecture, 2 labs, 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 lectures, 3 labs, 4 credits

HRT-113 Principles of Landscaping 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 lectures, 3 labs, 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 lectures, 3 labs, 3 credits

HRT-119 Greenhouse Operation and Production 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, handling, 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 lectures, 3 labs, 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 lectures, 2 labs, 3 creditsHRT-124 Irrigation Technology is a course designed to expose students to landscape and turf equipment technology, system designs, installation and maintenance of a variety of irrigation types. Students will be involved with reading irrigation blueprints, troubleshooting potential problems and repair techniques. 1 lecture, 2 labs, 2 credits

HRT-125 Equipment Management introduces the student to the selection, proper use, maintenance and repair of power tools that are used in the lawn and tree care industries. Lecture topics will focus on the necessary information needed to make purchasing decisions as well as safety and proper use practices. The lab section provides the student with a hands-on approach to troubleshooting engine problems and a variety of repair options. Students will be required to present projects relating to their industry's equipment needs. 1 lecture, 2 labs, 2 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 represented and simulated in the labs.
1 lecture, 1 lab, 1 credit

## HRT-204 Landscape Graphics

 emphasizes the techniques for formulating, presenting, and drafting landscape designs. In addition, the basic design elements of planting, including form, texture, color, sequence of bloom, and ecological associations will be studied. 1 lecture, 2 labs, 2 credits Prerequisite: HRT-113
## HRT-232 Plant 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 are covered. 3 lectures, 3 labs, 4 creditsPrerequisite: HRT-102

## HRT-233 Landscape Plants and

Materials 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 lectures, 3 labs, 4 credits Prerequisite: HRT-104 or by permission of Department Head.

## HRT-234 Commercial Floral

 Design and Management introduces the student to the production methods encountered in a commercial floral operation. Flower 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 lectures, 3 labs, 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 lectures, 3 labs, 3 credits Prerequisite: HRT-104
## HRT-236 Horticulture Marketing

 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 lectures, 3 credits
Prerequisite: HRT-101

## HRT-237 Arboriculture/Plant

Health Care is the study of the care of trees and woody plants. Emphasis is placed on pruning, pest control and proper cultural practices including planting procedures and fertilization schedules. Other important topics to be covered are the safety practices involved with tree climbing, pesticide application, and tree removal. The course will provide an understanding of the basic functions of woody plant systems. 2 lectures, 3 labs, 3 credits

HRT-462 Co-op Work Experience (Horticulture) is a supenvised 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. Job assistance is available through the Co-op office.
1 lecture, plus 168 minimum hours work experience distributed over the semester, 2 credits.
Prerequisite: any HRT course

## INF - INFORMATION TECHNOLOGY

Also see courses listed under CIS (Computer Science).

INF-100 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. 2 lectures, 2 lab, 3 credits

## INF-101 Introduction to

 Information Technology is an overview of the principles and procedures of processing data using computers. Topics covered include principles of computer operations, input/output devices, storage facilities, computer systems, networking terminology, programming concepts, computerized applications and the Internet. Students will work in an online course management system. Labs will provide hands-on reinforcement of topics covered in lecture. 2 lectures, 2 labs, 3 credits. Credit by exam available. (Students in Liberal Arts and Sciences should consider CIS-158 and CIS-165.)
## INF-107 Minicomputer

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 lectures, 2 labs, 3 credits

INF

## INF-108 PC Upgrade,

## Maintenance and Diagnosis

provides instruction in the infrastructure, configuration, upgrade, troubleshooting and repair of PC systems. Students will partially assemble and upgrade a PC. Topics include diagnosing problems; preventative maintenance; safety and environmental issues; motherboards (components and architecture); computer memory; input/output (I/0) interfaces; printer classes; basic netw orking and data communications concepts and components. This course assists with preparation for the CompTIA A+ Certification. 2 lectures, 2 labs, 3 credits

INF-114 Microsoft Office (Office 2007) uses project based exercises to teach the fundamentals of the Microsoft Office Suite - specifically, Word (word processing), Excel (spreadsheet), Access (database), PowerPoint (presentation), and Outlook (e-mail and calendar). Labs will include exposure to web development using the suite.
2 lectures, 2 labs, 3 credits
INF-115 Desktop Publishing is a hands-on experience integrating text and graphics to design, edit, and produce a variety of business documents. Know ledge of word processing is helpful.
2 labs, 1 credit

## INF-119 Document Processing with Microsoft Word (Word

2007) provides hands-on instruction using a popular word processing program. Topics covered include the creation, modification, and printing of documents that include text and graphics. Emphasis will be given to the proper formatting of documents and the production of office publications. Students are expected to keyboard at 30 WPM.
2 lectures, 2 lab, 3 credits

## INF-120 PowerPoint

(PowerPoint 2007) is an introduction to electronic presentations. Students will learn to create professional looking, computer-generated presentations that include use of design templates, graphics, sounds, animations, OLE and web links. Students will work in outline and slide views.
2 labs, 1 credit

## INF-124 Spreadsheet: Excel

(Excel 2007) 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 Microsoft Windows processing platform. 2 labs, 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. Hardware systems, distribution media, flowcharts, software tools, scripts, and production will be covered. Students will work in groups to design and prepare a multimedia presentation.2 lectures, 2 labs, 3 credits

## INF-143 Web Publishing with

 FrontPage introduces the student to the principles involved in creating Web home pages and Web sites. Students learn how to use the various tools to make exciting and informative Web pages applying this popular Microsoft 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 is also discussed.2 labs, 1 credit
Recommended corequisite: INF-101 (To be successful in this course, students should adhere to the recommendation.)

## INF-144 Windows Desktop

Operations (Vista) introduces the student to the basics of the Microsoft Windows desktop. Topics presented include working with files, organizing files with Windows Explorer, personalizing your Windows environment, bringing the Web to the desktop, searching for information, working with graphics, object linking and embedding, exploring your network, working with hardware, and managing Windows. 2 labs, 1 credit

INF-145 Introduction to Visual Basic for Business provides effective hands-on instruction in an event-driven, 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 Windows processing platform. 2 lectures, 2 labs, 3 credits. Recommended corequisite: INF-150 (To be successful in this course, students should adhere to the recommendation.)

## INF-146 Web Development Using

HTML uses Hypertext M arkup Language in the development and composition of Web pages. Students author pages that meet XHTML specifications outlined by the WWW Consortium. Topics covered include tables, forms, links, lists, objects of various types including graphic and sound, style sheets, and issues surrounding cross-platform view ing. The student will develop and upload a completed Web site. This course assists in preparation for Foundations Level CIW certification. 2 lectures, 2 labs, 3 credits Recommended corequisite: INF-101. (To be successful in this course, students should adhere to the recommendation.)

## INF-147 Web Development

 Using Dreamweaver introduces students to Web page authoring using a What-You-See-Is-What-YouGet editing environment. This course will focus on technical mastery of the software tools and techniques used to create Web pages with Dreamweaver, and on an understanding of the technical and environmental issues that affect Web page design, performance, and effectiveness. Graphic design issues will be addressed in this context. 2 lectures, 2 labs, 3 credits.Recommended corequisite: INF-101. (To be successful in this course, students should adhere to the recommendation.)

INF-150 Business Programming
Logic develops and reinforces the student's logical thought processes using proper design techniques and tools, especially flowcharting. Topics presented 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, hyperlinking, stacks, queues, trees, and traditional file structures.
2 lectures, 2 labs, 3 credits. Credit by exam available.
Prerequisite: MAT-035 or by
$M$ athematics testing.
Recommended corequisite: INF-101 (To be successful in this course, students should adhere to the recommendation.)

## INF-151 Database: Access

(Access 2007) 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 Microsoft Windows processing platform.
2 labs, 1 credit

## INF-152 C/C++ Programming

for Business provides the foundations for programming in the C and C++ languages. Students code business application programs applying $\mathrm{C} / \mathrm{C}++$ operators, constructs, and functions. Topics covered include language version differences, definition of variables; math, relational, and logical operators; decisions; while and for loops; $\mathrm{C} / \mathrm{C}++$ functions, user written functions, and scope and passing values.
2 lectures, 2 labs, 3 credits Recommended corequisite: INF-150 (To be successful in this course, students should adhere to the recommendation.)

## INF-153 Java for Business

Applications provides effective hands-on instruction in this powerful and versatile object-oriented language. Students develop stand-alone business applications as well as applets that run in Java-enabled environments. Topics explored include fundamental syntax and Java 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 covered.
2 lectures, 2 labs, 3 credits
Recommended Corequisite: INF-150 and (INF-161 or INF-162 or INF163). (To be successful in this course, students should adhere to the recommendation.)

INF-155 UNIX Operating System presents a complete overview of the UNIX system. Students learn the concepts of UNIX-processes, multiprogramming, 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 labs, 1 credit

## INF-160 Networking Technologies and Data

 Communications offers a comprehensive coverage of networking and data transmission key terms, concepts, and development strategies. Topics presented include: the history of network development; network media; network protocols; network/data transmission theory (OSI layers and IEEE standards); network types; network design; server/client configuration; network administration; netw ork remote access; wide area networks; and network troubleshooting. The course assists in preparing the student for the MCSE certification exams offered by Microsoft and the Foundations Level CIW certification.3 lectures, 3 credits

## INF-161 Internet Research and

 Data Handling provides an indepth view of the Internet and is designed to meet both professional and research needs. Topics covered include advanced searching strategies and techniques, data mining, information integrity and intellectual property, FTP sites, downloads, file types and their integration into applications, and connectivity issues. 2 labs, 1 creditINF-162 Introduction to the Internet introduces the necessary skills to access the Internet using leading Internet browsers. Topics covered include the Web, its components and organization; URLs; browsing Web 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 newsgroup articles, conversing and chatting; and popular Web sites. Course credit by exam is available. 2 labs, 1 credit

## INF-163 Internet Concepts and

 Applications provides comprehensive coverage of the Internet. Topics presented include the Internet's history; its composition and technologies; protocols; electronic mail systems; browser and Web concepts; source integrity; searching the Web for research and gaining market intelligence; commanding FTP, newsgroups, gopher, and Telnet; and objects, plug-ins and viewers. This course assists in preparation for Foundations Level CIW certification. 2 lectures, 2 labs, 3 credits
## INF-164 Netw orking

Fundamentals I exposes students to the skills needed to design, build, and maintain small to medium-sized networks. Students are provided with classroom and laboratory experience in current and emerging networking technology. Focus is on the theory behind LANs. Topics include safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol addressing, network standards, safety and environment issues. This course assists in preparation towards the CISCO CCNA certification. 3 lectures, 2 labs, 4 credits Prerequisites: None; Helpful: A+ Certification; Microsoft Office Skills; introductory programming or multimedia courses; introductory electronics.

## INF-165 Introduction to Linux

 provides a hands-on introduction to this open-source operating system. Students learn to configure a graphical desktop environment, install and configure office-suite applications, create a Linux server environment, configure basic services, and use Linux commands.2 lab, 1 credit

## INF-166 Introduction to

StarOffice provides hands-on experience using an office suite product to perform common tasks such as basic word processing, spreadsheet development and presentation graphics preparation. Students also gain exposure to fundamental vec-tor-drawing tools. This project-based course will include preparation of documents such as letters, memos, flyers, reports, tables, charts, single page spreadsheets and short screenbased presentations.
2 lab, 1 credit

## INF-208 Systems Analysis and Design addresses the effective use

 of equipment and management techniques in meeting the information needs of the contemporary business world. The techniques of analysis, specifications, selection, and implementation lead to the design of an optimal information system. 3 lectures, 3 creditsPrerequisites: BUS-101 and (INF-145 or INF-152 or INF-242) or permission of the Department Head. (Computer Science students should take CIS-289)

## INF-214 Administrative

Simulation requires students to apply software products to perform general office functions. Students will prepare a variety of documents integrating multiple office software applications. Critical thinking and personal time management will be used to organize work and make effective decisions. 1 lecture, 2 labs, 2 credits Prerequisites: INF-101, INF-114 and INF-119

## INF-216 Document Processing

delves into advanced word processing features while providing practice to increase keyboarding speed and accuracy. Emphasis will be given to proper formatting of documents and the rules of punctuation. Additional topics include automating features of word processing and production of office publications.
2 lectures, 2 lab, 3 credits Prerequisites: INF-100 and INF-119

INF-217 Database for Business Applications (Oracle) focuses on database design, implementation, and administration. Topics of discussion include database development, database design, fundamentals of input/output, processing using SQL commands, file organization, as well as interfacing between application programming languages and a database management system (DBMS). Students will spend time in the lab working with database software. 2 lectures, 2 labs, 3 credits Prerequisites: INF-101 and INF-114 or by permission of the Department Head.

## INF-218 Database Programming

 (Oracle - PL/SQL) covers the creation of database applications using a procedural language extension to SQL. Students learn some of the limitations of SQL and explore procedural logic constructs such as variables, constants, conditional statements, iterative controls, functions, and procedures. Students will use exception handlers to make their programs more robust. They will gain experience using, creating, and managing packages. The concepts will be explored using database software in a hands-on project-based environment.2 lectures, 2 labs, 3 credits Prerequisite: INF-217 Database for Business Application or by permission of the Department Head

INF-219 Database Administration covers the installation, configuration, deployment and administration of database servers. Beyond basic installation and configuration issues, students will learn how to back up and recover data, administer users, transport data between databases, manage data, and configure networks for database access. These concepts and skills will be explored using database software in a hands-on project-based environment.
2 lectures, 2 labs, 3 credits Prerequisite: INF-101 Introduction to Information Technology and INF-260 Networking Technologies and Data Communications or by permission of the Department Head

INF-224 Advanced C++ 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, objectpointers, functions, the persistence of objects, and attributes.
2 lectures, 2 labs, 3 credits
Prerequisite: INF-152 or permission of the Department Head.

INF-226 Advanced UNIX will present an in-depth view of UNIX.
Topics taught in this course include advanced shell programming, filters, advanced commands, communications, and networking concepts, with discussions on the internal aspects of the UNIX operating system. 2 labs, 1 credit
Prerequisite: INF-155 or by permission of the Department Head.

## INF-228 Excel for Problem

 Solving (Excel 2007) focuses on the practical applications of Excel. Business applications will be analyzed and developed. Topics covered include creating and using macros, linking among worksheets and between files, importing and exporting, databases, graphics, advanced functions, and other advanced spreadsheet topics as needed to develop applications.2 labs, 1 credit
Prerequisite: INF-124 or INF-114 or by permission of the Department Head.

## INF-232 Windows Client will

 introduce students to Microsoft Windows XP Professional through lectures, demonstrations, discussions, and hands-on lab exercises. Students learn about and use the various tools for administering and configuring Windows XP including the Microsoft Management Console, Task Scheduler, Control Panel and the Registry Editor. Students are instructed in the process to install and administer TCP/IP; install, share and administer print devices; and manage data storage. The course also assists in preparing to sit for Windows XP MCP exams.2 lectures, 2 lab, 3 credits. Prerequisite: INF-101 and INF-160 or by permission of the Department Head.

INF-235 Advanced PC Upgrade, Maintenance and Diagnosis focuses on basic operating systems technologies necessary for a PC support technician. Course content covered includes fundamentals of operating systems; installation, configuration, and upgrading; diagnosing and troubleshooting PC problems; and connecting and configuring computers to work on a network. This course assists with preparation for the CompTIA A + Certification. 2 lectures, 2 labs, 3 credits Prerequisite: INF-108 or by permission 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 presented include expert systems' characteristics, components of expert systems, and methods of knowledge acquisition. Emphasis is placed on business applications and implementation issues. One or more microcomputer-based expert system shells are demonstrated and used by students to create an expert system prototype(s) in the labs 2 lectures, 2 labs, 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 work in groups or individually to develop a physical design for a contemporary application, from which the solution is coded and tested. The final project contains the full scope of systems and programming documentation. 2 lectures, 2 labs, 3 credits Prerequisites: INF-217 and (INF-224 or INF-243 or INF-246 or INF-268) or permission of the Department Head.

## INF-240 Client-side Scripting

 Using JavaScript provides experience in building interactive and dynamic Web pages. Topics taught include variables, data types, objects, operators, control structures, functions, cookies, and browser issues. Examples will include interactive forms and visual effects such as animation 2 lectures, 2 labs, 3 credits. Prerequisites: INF-101 and (INF-141 or INF-146) or by permission of the Department Head.Recommended corequisite: INF-150 (To be successful in this course, students should adhere to the recommendation.)

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 lectures, 2 labs, 3 credits
Prerequisite: INF-107
Recommended corequisite: INF-150 (To be successful in this course, students should adhere to the recommendation.)

## INF-243 Advanced RPG/400

Programming is a continuation of RPG/400. Topics covered in class include data validation, disk file maintenance, direct and add files, AS/400 files, and interactive processing. 2 lectures, 2 labs, 3 credits Prerequisite: INF-242 or by permission of the Department Head.

## INF-245 Database: SQL,

 Structured Query Language, is a hands-on experience in a 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 labs, 1 creditPrerequisite: INF-101 or INF-114

## 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 Microsoft Windows processing platform. 2 lectures, 2 labs, 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 presented in class include creating ActiveX clients, ActiveX code components and controls. 2 labs, 1 credit Prerequisites: (INF-161 or INF-162 or INF-163), and INF-246INF-249 Visual C++ for Windows with MFC provides the C++ programmer with effective hands-on instruction in developing Visual $\mathrm{C}++$ applications using Microsoft Foundation Class Library (MFC). This course introduces Windows programming concepts using Windows resource identifiers, dialog boxes, and controls. In addition, the course covers the use of Visual $\mathrm{C}++$ for developing standalone interactive applications. 2 lectures, 2 labs, 3 credits Prerequisite: INF-224 or by permission of the Department Head.

## INF-251 Advanced Access

(Access 2007) will focus on using
the more powerful features of Microsoft Access including the organization of multiple databases, advanced methods of query, programming, and data manipulation. All work will be done on a Microsoft Windows processing platform. 2 labs, 1 credit Prerequisite: INF-151 or INF-114 or by permission of the Department Head.

INF-252 Windows Server introduces students to Microsoft Windows 2003 server through lectures, demonstrations, discussions and hands-on labs. Students learn to install Windows 2003 server, and also learn about the various file systems supported by Windows 2003. Students use Microsoft Management Console, learn how to administer print services and install and administer netw ork protocols and services. The course also assists in preparing to sit for Windows 2003 MCP exams. (Completion of INF-232 is recommended before taking INF-252) 2 lectures, 2 labs, 3 credits Prerequisites: INF-101 and INF-160 or by permission of the Department Head.

## INF-253 Technical

Communications employs comput-er-assisted methods for planning and presenting technical information in a clear and concise manner.
Emphasis is placed on designing effective methods for determining the structure of oral, written, and graphic communications in a technical environment. Topics presented include preparation of end-user documentation; presenting technical information to non-technical individuals; reporting, extracting, charting, and summarizing data.
2 lectures, 2 labs, 3 credits
Prerequisite: INF-101 and INF-114 or by permission of the Department Head.
Recommended corequisite: INF-161 or INF-162 or INF-163 (To be successful in this course, students should adhere to the recommendation.)

## INF-254 UNIX for the Network

 Administrator provides comprehensive coverage of the UNIX operating system. Following an introduction to this operating system and its file system, focus is placed on providing a network administrator's perspective to develop and manipulate operating system file pathways. Topics taught include the UNIX shell; its variables, command line interpretation, and creating Shell procedures; UNIX utilities; process control; Regular Expression (RE) pattern matching; and the X W indowing system. An introduction to shell programming is covered.2 lectures, 2 labs, 3 credits Prerequisite: INF-160 or permission of the Department Head.

## INF-256 Topics In Networking

focuses on the latest advances in networking theory and administration. Students study topics that are of current relevance within this dynamic and fast-growing field. As the topics will change each semester, emphasis will be on identifying changes in networking standards and protocols; media, architecture and hardware; network 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 lectures, 3 credits
Prerequisites: INF-160 and (INF-161 or INF-162 or INF-163) or by permission of the Department Head.

## INF-257 Network

Troubleshooting 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, hardware, and software problems; disaster recovery and backup plans; netw ork management record keeping; configuration management; and patch/service release installation procedures. 2 lectures, 2 labs, 3 credits Prerequisite: INF-232 and INF-252 or by permission of the Department Head.

## INF-258 TCP/IP examines

Transmission Control Protocol/Internet Protocol (TCP/IP) concepts with emphasis on planning, deploying and managing a TCP/IP network. Topics include the configuration and logistics of TCP/IP networks; IP addressing and subnetting; Multicast IP; Mobile IP; IPv6; FTP and Remote Access Protocol (PPP and SLIP). Students will learn how to troubleshoot and manage TCP/IP netw orks using a packet sniffer, TCP/IP utilities, and protocols such as Internet Control Message Protocol (ICMP). 2 lectures, 2 labs, 3 credits Prerequisite: INF-160 or permission of the Department Head.

## INF-260 Technical Support

Operations introduces students to both the methodological and handson customer service-related world of end user support. Course topics examined 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 studied include application installation; software and virus troubleshooting; call tracking; remote support; and support documentation. Students complete an individual support project with documentation.
2 lectures, 2 labs, 3 credits. Prerequisites: INF-108 and INF-144 and (INF 161 or INF-162 or INF163) or by permission of the Department Head.

## INF-263 Server-Side Internet

 Programming focuses on tools and techniques to create dynamic, interactive, and portable Web applications using server-side programming technologies. Students learn to write server-side programs and build datadriven server-side Web applications. Topics explored include architecture, server-side objects and their object model, programming techniques, creation of basic server-generated Web pages, validation of form data, creation of XML documents, managing data sources, and, configuring, troubleshooting, and deploying serv-er-side applications.2 lectures, 2 labs, 3 credits
Prerequisites: INF-101 and (INF-141
or INF-146) or permission of the Department Head.
Recommended Corequisite: INF-150

## INF-264 Networking

Fundamentals II continues to build skills needed to design, build, and maintain small to medium-sized networks. The combination of laboratory and lectures focus on a more detailed understanding of the Open System Interconnection (OSI) models, Wide A rea Networks (WANs), routers and using the routers and associated router components. Students learn how to start and set up routers while developing configurations consistent with the various operating systems and topologies. This course assists in preparation towards the CISCO CCNA certification.
3 lectures, 2 labs, 4 credits Prerequisite: INF-164; Helpful: A+ Certification; Microsoft Office skills; introductory programming or multimedia courses; introductory electronics.

## INF-265 Network Configuration

I applies the concept and techniques acquired during prior coursew ork to perform LAN switching and LAN segmentation using routers, switches and bridges. Topics taught include Ethernet, Fast Ethernet, the benefits of segmentation, and LAN performance. Students work with the IPX protocol and configure interfaces as well as monitor the operation of the router. Benefits of the Spanning Tree Protocol and virtual LANs will be explored. This course assists in preparation towards the CISCO CCNA certification. 3 lectures, 2 labs, 4 credits Prerequisite: INF-264; Helpful: A+ Certification; Microsoft Office Skills; introductory programming or multimedia courses; introductory electronics.

INF-266 Network Configuration
II seeks to differentiate among the following WAN services: LAPB, Frame Relay, ISDN/LAPD, HDLC, PPP and DDR. Key Frame Relay terms and features will be acquired to configure Frame Relays, LMIS, maps and subinterfaces. Skills for identification of PPP operations to encapsulate WAN data on CISCO routers will be acquired. ISDN concepts and techniques will be introduced to enable identification of ISDN protocols, function groups, reference points, and channels. This course assists in preparation towards the CISCO CCNA certification.
3 lectures, 2 labs, 4 credits Prerequisite: INF-265; Helpful: A+ Certification; Microsoft Office Skills; introductory programming or multimedia courses; introductory electronics.

## INF-267 Netw ork Security

provides a foundation-level course that focuses on securing an enterprise's systems and networks. Topics presented include email security; web security; system hardening; incident response; public key infrastructure; disaster recovery; basics of cryptography; and methods for combating Spam, securing a server, and preventing denial of service attacks. 3 lectures, 3 credits
Prerequisite: INF-160 or permission of the Department Head.

## INF-268 Advanced Java for

 Business Applications is a continuation of Java for Business Applications. Students code business application programs in a complete object-oriented environment applying advanced concepts such as advanced GUI and graphics programming (Swing and 2D Graphics), collections, exception handling, multithreading, multimedia, file input/output, database connectivity (JDBC), internationalization, and networking. 2 lectures, 2 labs, 3 credits Prerequisite: INF-153 or by permission of the Department Head.INF-LAN

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. Job placement assistance is available through the Co-op office. Prerequisite: INF-101 or by permission of the Department Head.

INF-461 1 lecture; plus 60 minimum hours work experience distributed over the semester, 1 credit INF-462 1 lecture; plus 120 minimum hours work experience distributed over the semester, 2 credits INF-463 1 lecture; plus 180 minimum hours work experience distributed over the semester, 3 credits
INF-464 1 lecture; plus 240 minimum hours work experience distributed over the semester, 4 credits

## IST - INTERDISCIPLINARY STUDIES

IST-101 Introduction to Technological and Information Literacy (TIL) (A) introduces students to the history and use of contemporary computer technology and to the retrieval, evaluation, and management of electronic and print information. The course covers various types of computer systems, college library systems, the Internet and its applications, networked information systems, traditional scholarly resources, central concepts underlying the research process, the social impact of developments in information technology (IT), and ethical, legal, and political aspects of tech nology and information utilization. 2 labs, 1 credit

## IST-102 Introduction to

 Technological and Information Literacy (TIL) (B) introduces students to the history and use of contemporary computer technology and to the retrieval, evaluation, and management of electronic and print information. The course covers various types of computer systems, college library systems, the Internet and its applications, netw orked information systems, traditional scholarly resources, central concepts underlying the research process, the social impact of developments in IT, and ethical, legal, and political aspects of technology and information utilization.(M ust be taken with a TIL-intensive section of a General Education course such as SPE-111 or WRT-101) 1 lab, 1 credit

## IST-121 Introduction to the

 College Experience is a course which combines academic subject matter and substantial writing assignments in a discipline context established by the individual instructor. This course provides a leaming opportunity for the 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 lectures, 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 own leadership philosophy. Topics of study presented include the concepts of leadership, historical perspectives, personal skill development, leadership in organizations, and contemporary leadership. 3 lectures, 3 credits Prerequisites: SPE-111 and WRT-101
## IST-471 Co-op Work Experience

 (Interdisciplinary Studies) provides the student with practical, supervised work experience in a professional environment. Through on-the-job experience, students can acquire knowledge and skills to pursue a career in their area of interest. A faculty member supervises students, and job placement assistance is available through the Co-op Office.1 lecture; plus 60 minimum hours work experience distributed over the semester, 1 credit
Prerequisite: To be determined by individual departments

## IST-472 Co-op Work Experience

 (Interdisciplinary Studies) provides the student with practical, supervised work experience in a professional environment. Through on-the-job experience, students can acquire knowledge and skills to pursue a career in their area of interest. A faculty member supervises students, and job placement assistance is available through the Co-op Office. 1 lecture; plus 120 minimum hours work experience distributed over the semester, 1 creditPrerequisite: To be determined by individual departments

## IST-473 Co-op Work Experience

 (Interdisciplinary Studies) provides the student with practical, supervised work experience in a professional environment. Through on-the-job experience, students can acquire knowledge and skills to pursue a career in their area of interest. A faculty member supervises students, and job placement assistance is available through the Co-op Office. 1 lecture; plus 180 minimum hours work experience distributed over the semester, 1 creditPrerequisite: To be determined by individual departments

## IST-474 Co-op Work Experience

 (Interdisciplinary Studies) provides the student with practical, supervised work experience in a professional environment. Through on-the-job experience, students can acquire knowledge and skills to pursue a career in their area of interest. A faculty member supervises students, and job placement assistance is available through the Co-op Office. 1 lecture; plus 240 minimum hours work experience distributed over the semester, 1 creditPrerequisite: To be determined by individual departments

## 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 Bergen course as follows:

Years of study Register In
Up to one year Level I courses (e.g., French I)

Two years Level II courses (e.g., French II)

Three or more Level III courses (e.g., Intermediate French I)

Check the Bergen 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.

LAN-011 Directed Studies in French is a program of computerassisted individualized instruction allowing 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
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 audiolingual skills and do not concentrate on formal grammatical problems. The course offers insight into the culture of French-speaking countries in an effort to familiarize the tourist with the customs of these countries. 2 lectures, 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 lectures, 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 lectures, 2 credits

LAN-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 lectures, 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 World Languages and Cultures Discipline for course placement guidance.
3 lectures, 1 lab, 3 credits
JGeneral 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 World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits
JGeneral 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 World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits JGeneral 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 World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits JGeneral 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 World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits \}General 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 lectures, 3 creditsLAN-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 lectures, 3 credits

LAN-120 Japanese I is an introduction to the pronunciation, basic comprehension, and communication of Japanese 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 World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits JGeneral 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 World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits JGeneral 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 healthcare personnel, patients, and clients.
3 lectures, 3 credits

## LAN-151 Spanish for Public

 Service Personnel is a study of the fundamentals of Spanish and of practical Spanish vocabulary and technical terminology. The course is intended for students in criminal justice, social work, and civil service programs.3 lectures, 3 credits

LAN-152 Spanish for Commerce and Business is a course in basic Spanish for students in business and commercial studies programs. The course emphasizes practical vocabulary, technical terminology, and oral and written communication in the world of commerce and industry. 3 lectures, 3 credits

LAN-165 Korean I is an introduction to the pronunciation, basic comprehension, and communication of Korean 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 2 years prior study should consult with the Academic Coordinator of the World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits \}General Education Course

## LAN-170 American Sign

Language $I$ is an introduction to the expressive and receptive skills required for communication in American Sign Language [ASL]. Through active class use of basic vocabulary, grammar, and syntax, students will begin exploration of Deaf Culture and begin to learn the language of that culture. This course is recommended for students who have had less than one year of previous study of this language. Students with more than two years of prior study should consult with the Academic Coordinator of the World Languages and Cultures Discipline for course placement guidance. 3 lectures, 1 lab, 3 credits \}General Education Course

LAN-200 French II offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of French through active class use of vocabulary, grammar, and syntax. 3 lectures, 1 lab, 3 credits Prerequisite: LAN-110 with a grade of C or better, or equivalent placement \}General Education Course

LAN-201 Intermediate French I expands students French vocabulary and enhances their conversational ability. The course is conducted entirely in French and features extensive discussion of contemporary France and some grammar review. 3 lectures, 3 credits
Prerequisite: LAN-200 with a minimum grade of C or by permission of the Academic Coordinator.
JGeneral Education Course

## LAN-202 Intermediate French II

 is conducted entirely in French and develops students French communication skills through a study of the cultural history of France.3 lectures, 3 credits
Prerequisite: LAN-201 with a minimum grade of C or by permission of the Academic Coordinator.
JGeneral Education Course

## LAN-203 French Conversation

 emphasizes the spoken language, stressing fluency and correctness of structure, pronunciation, and vocabulary. Topics of discussion may include current cultural, social, and literary events. Students receive individualized instruction in syntax and vocabulary. This course is conducted in the target language.3 lectures, 3 credits
Prerequisite: LAN-201- French II with a minimum grade of $C$ or by permission of the Academic Coordinator JGeneral Education Course

## LAN-206 French Literature of

 the 19th Century is a study of the literary and theatrical works of the French symbolists, the preRomantics, Baudelaire, and other 19th century French writers. 3 lectures, 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 sociopolitical role of France in the world. The course discusses contributions to world agriculture, industry and international trade. The course is taught in French using a variety of media and may provide out-of-class learning opportunities. 3 lectures, 3 creditsPrerequisite: 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 lectures, 1 lab, 3 credits Prerequisite: LAN-111 with a grade of C or better, or equivalent placement Jeneral 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 lectures, 3 credits
Prerequisite: LAN-210 with a minimum grade of C or by permission of the Academic Coordinator.
JGeneral 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 Germany. 3 lectures, 3 credits
Prerequisite: LAN-211 with a minimum grade of C or by permission of the Academic Coordinator.
JGeneral Education Course

## LAN-213 German Conversation

 emphasizes the spoken language, stressing fluency and correctness of structure, pronunciation, and vocabulary. Topics of discussion may include current cultural, social, and literary events. Students receive individualized instruction in syntax and vocabulary. This course is conducted in the target language.3 lectures, 3 credits Prerequisite: LAN-210 German II with a minimum grade of $C$ or by permission of the Academic Coordinator
JGeneral Education Course

## LAN-217 German Culture and

 Civilization surveys the unique geography, pertinent history, significant literary and artistic movements, and the current sociopolitical role of Germany in the world. The course discusses Germany's contributions to world agriculture, industry and international trade. The course is taught in German using a variety of media and may provide out-of-class learning opportunities. 3 lectures, 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 lectures, 1 lab, 3 credits
Prerequisite: LAN-112 with a grade of $C$ or better, or equivalent placement
JGeneral 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 lectures, 3 credits
Prerequisite: LAN-220 with a minimum grade of $C$ or by permission of the Academic Coordinator.
JGeneral 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 lectures, 3 credits
Prerequisite: LAN-221 with a minimum grade of C or by permission of the A cademic Coordinator.
JGeneral Education Course

## LAN-223 Italian Conversation

emphasizes the spoken language, stressing fluency and correctness of structure, pronunciation, and vocabulary. Topics of discussion may include current cultural, social, and literary events. Students receive individualized instruction in syntax and vocabulary. This course is conducted in the target language.
3 lectures, 3 credits
Prerequisite: LAN-220 Italian II with a minimum grade of C or by permission of the Academic Coordinator JGeneral Education Course

## LAN-224 Advanced Italian

Composition develops the stu-
dents' 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 lectures, 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 lectures, 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 with some previous Spanish language instruction.
4 lectures, 3 credits
\}General 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 lectures, 3 credits
Prerequisite: LAN-228, with a minimum grade of C or by permission of the Academic Coordinator. \}General 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 lectures, 1 lab, 3 credits Prerequisite: LAN-113 with a grade of C or better, or equivalent placement \}General 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 lectures, 3 credits
Prerequisite: LAN-230 with a minimum grade of C or by permission of the Academic Coordinator.
\}General 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 lectures, 3 credits
Prerequisite: LAN-231 with a minimum grade of C or by permission of the Academic Coordinator.
JGeneral Education Course

## LAN-233 Spanish Conversation

 emphasizes the spoken language, stressing fluency and correctness of structure, pronunciation, and vocabulary. Topics of discussion may include current cultural, social, and literary events. Students receive individualized instruction in syntax and vocabulary. This course is conducted in the target language.3 lectures, 3 credits
Prerequisite: LAN-230 Spanish II with a minimum grade of C or by permission of the Academic Coordinator JGeneral Education Course

## LAN-234 Advanced Spanish

 Composition develops the students' ability to write in Spanish and emphasizes the relationship betw een 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 lectures, 3 credits
Prerequisite: LAN-231 or equivalent placement

## LAN-235 Survey of Spanish

 Peninsular Literature is a study of Spanish literature from the 12th century to the present.3 lectures, 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 lectures, 3 credits
Prerequisite: LAN-231 or equivalent placement

## LAN-237 Mexican Culture and

 Civilization surveys the unique geography, pertinent history, significant literary and artistic movements, and the current sociopolitical role of M exico in the world. The course discusses Mexico'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 lectures, 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 sociopolitical 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 lectures, 3 credits
Prerequisite: LAN-231

## LAN-239 Italian Culture and

 Civilization surveys the unique geography, pertinent history, significant literary and artistic movements, and the current sociopolitical 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 lectures, 3 credits
Prerequisite: 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 lectures, 1 lab, 3 credits Prerequisite: LAN-114 with a grade of C or better, or equivalent placement JGeneral Education Course

## LAN-241 Intermediate Russian I

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 lectures, 3 credits Prerequisite: LAN-240 with a minimum grade of C or by permission of the Academic Coordinator.
JGeneral 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 lectures, 1 lab, 3 credits Prerequisite: LAN-144 with a grade of C or better, or equivalent placement JGeneral 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 lectures, 3 credits
Prerequisite: LAN-244 with a minimum grade of $C$ or by permission of the Academic Coordinator.

## \}General 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 lectures, 3 credits Prerequisite: Fluency in Spanish as determined by the World Languages faculty.

LAN-260 Japanese II offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of Japanese through active class use of vocabulary, grammar, and syntax. 3 lectures, 1 lab, 3 credits Prerequisite: LAN-120 with a grade of C or better, or equivalent placement JGeneral Education Course

LAN-261 Intermediate Japanese I
expands students' Japanese vocabulary and enhances their conversational ability. The course is conducted entirely in Japanese and features extensive discussions of contemporary Japan and some grammar review. 3 lectures, 3 credits Prerequisite: LAN-260 with a minimum grade of C or by permission of the Academic Coordinator. JGeneral Education Course

LAN-262 Intermediate Japanese
II expands the students' vocabulary and enhances their conversational and reading ability through class discussions, pair/group work, simulations, and oral presentations. The course is conducted entirely in Japanese with some grammar review and features extensive discussions of contemporary Japanese culture. 3 lectures, 3 credits Prerequisite: LAN-261 with a minimum grade of $C$ or by permission of the Academic Coordinator.
\}General 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 lectures, 3 credits Prerequisite: LAN-165 with a grade of C or better, or equivalent placement \}General Education Course

## LAN-270 American Sign

Language II is a continuation of American Sign Language I designed to further develop competency in ASL. Students will be given the opportunity to enhance both expressive and receptive skills by increasing vocabulary and knowledge of grammar. Students will be expected to interact with the deaf community in real-life settings thereby enhancing their awareness of and sensitivity to various aspects of Deaf Culture and ASL. 3 lectures, 1 lab, 3 credits Prerequisite: LAN-170 with a grade of $C$ or better or permission of the Program Coordinator
\}General Education Course

## LGL PARALEGAL STUDIES

LGL-101 Fundamentals of Law is an introduction to the principles of substantive law in the fields of contracts, legal ethics, sales, consumer remedies, torts, and secured transactions.
3 lectures, 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. Research problems and case memo term papers are assigned.
2 lectures, 2 labs, 3 credits
Corequisite: WRT-101

LGL-150 School Law is a study of New Jersey school laws, the rules and regulations of the New Jersey 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 lectures, 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 Medicaid, Iong-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 lecture, 1 credit
(Offered only in the evening)

## LGL-200 Business

Communications for Paralegals covers 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 lectures, 3 credits
Prerequisites: LGL-101 and LGL-103

## LGL-202 New Jersey and

Federal Courts is a study of the
Rules of Court for the New Jersey Court System as they relate to pleadings, depositions, interrogatories, summary judgment, appellate practice, and rules of evidence.
3 lectures, 3 credits
Prerequisites: LGL-101, LGL-103,
LGL-203, LGL-220
(Offered only in the evening of the fall semester)

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 lectures, 2 labs, 3 credits
Prerequisites: LGL-101 and LGL-103
Corequisite: WRT-201
(Offered only in the evening of the spring semester)

## LGL-205 Mechanics of Property

Transactions is a study of New Jersey 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 assistant's role in a real property conveyance. Students examine case studies and prepare a sample problem from contract to closing.
3 lectures, 3 credits
Prerequisites: LGL-101, LGL-103,
LGL-220, and REA-101
(Offered only in the evening of the fall semester)

## 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 lectures, 3 credits Prerequisites: LGL-101 and LGL-103 and LGL-220
(Offered only in the evening of the spring semester)

## LGL-207 Wills and

Administration is a study of the New Jersey law of wills, probate, and estate administration. Topics of discussion include the preparation of wills, probate procedures, and the preparation of New Jersey Inheritance and Federal Estate Tax forms. 3 lectures, 3 credits
Prerequisites: LGL-101 and LGL-103 and LGL-220
(Offered only in the evening)

## LGL-208 Mechanics of Family

Law is an introduction to New
Jersey family law. Topics of discussion include divorce, annulment, equitable distribution of assets, child custody, alimony, and support and visitation of children. New Jersey forms and procedures are reviewed. Students examine case studies and prepare matrimonial pleadings and pretrial memoranda.
3 lectures, 3 credits
Prerequisites: LGL-101 and LGL-103 and LGL-220
(Offered only in the evening of the fall semester)

## LGL-220 Computer Assisted

Legal Research introduces the student to modern technologies which allow efficient and accurate legal research. The course incorporates Westlaw, CD-ROM, and the Internet into the legal research process and requires students to complete assigned computer research projects. 2 lectures, 2 labs, 3 credits
Prerequisites: LGL-101 and LGL-103
LGL-230 Bankruptcy Law teaches paralegals the procedures, forms, and schedules used in bankruptcy cases. 1 lectures, 1 credit
Prerequisites: LGL-202 and LGL-203 or permission of the Department Head (Offered only in the evening)

## LGL-231 Environmental Claims

teaches paralegals the practice and procedures in the specialized field of environmental claims-tort liability. 1 lecture, 1 credit
Prerequisites: LGL-203 and LGL-205 or permission of the Department Head (Offered only in the evening)

LGL-232 Immigration Law teaches paralegals the practices and procedures in the emerging specialty of immigration law.
1 lectures, 1 credit
Prerequisite: LGL-203 or by permission of the Department Head.
(Offered only in the evening)

## LGL-233 Intellectual Property

teaches paralegals the practices and procedures used in the emerging specialty of filing and protecting intellectual property such as trade names, patents and copyrights. 1 lectures, 1 credit
Prerequisites: LGL-203 and LGL-206 or permission of the Department Head (Offered only in the evening)

## 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. Students will examine case studies and will prepare legal forms for sample case problems. 2 lectures, 2 labs, 3 credits Prerequisites: LGL-203 and LGL-220 (Offered only in the evening of the spring semester)LGL-235 Tax Law teaches paralegals the tax implications of common problems faced in law offices. Topics covered include business acquisitions and IRS employment regulations.
1 lectures, 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 lectures, 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 lecture, 1 credit
Prerequisite: LGL-101 or by permission of the Department Head. (Offered only in the evening)

## LGL-462 Co-op Work Experience

(Paralegalism) 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. Job assistance is available through the Co-op office. 1 lecture; plus 179 minimum hours work experience distributed over the semester, 2 credits
Prerequisites: LGL-101, LGL-202, LGL-205, LGL-208, LGL-220, WRT101, and WRT-201. Student must have attained a C or better grade in English Composition I and II and all paralegal specialty courses. (Offered only in the evening of the spring semester)

## LGN - LEGAL NURSE CONSULTANT

LGN-105 Principles of Legal Nurse Consulting examines the history and evolution of nurse consulting and legal theories. The role of the legal nurse consultant is explored as it relates to the review and analysis of medical records, litigation process, trial and witness preparation, standards of care, risk management, insurance issues, and alternative forms of dispute resolution. Business principles for legal nurse consultants are also covered. 3 lectures, 3 credits

LGN-201 Health Law provides an overview of the American health care system, examining its historical origins and the interplay of competing interests. It examines managed care organizations (MCOs) including (HMOs, PPOs, PHOs, IPAs, etc.); and MCO regulatory issues, such as licensing and certificate-of-need requirements and patient rights legislation; legal implications of the transactions engaged in by MCOs; fraud and abuse in the health care system; managed care contracting including contract drafting and analysis; legal issues concerning hospitals; M edicare and M edicaid; interaction health law with medical malpractice.
3 lectures, 3 credits
Prerequisites: LGN-105, LGL-101, LGL-103

## LGN-204 Medical Legal Ethics,

Records and Writing requires the production and preparation of medical records summaries which includes identifying standards of care; accessing, interpreting and summarizing medical records; interviewing clients; medical witnesses and preparation of the legal nurse consultant's report. Additionally, the course covers legal and medical ethics.
3 lectures, 1 lab, 3 credits
Prerequisites: LGL-101, LGL-103, LGL203, LGL-234, LGN-105 and LGN-201

## LGN-210 Advanced Medical Legal

Research develops advanced research skills employing Westlaw, Medicine and Internet research. Students will become facile users of legal and medical databases online, including the Internet. Course focuses on medical and legal research used in determining appropriate standards of care.
2 lectures, 2 labs, 3 credits
Prerequisites: LGL-101, LGL-103, LGN-105, LGN-204

LGN-462 Legal Nurse Internship requires that the student complete all legal nurse specialty courses with a grade of $C$ or better. This course can only be taken in the last semester of the Legal Nurse Program. The student must meet with the instructor and jointly prepare an agreed 179 hour lab for the course which will include on-site study and assignments in a legal nurse setting such as a hospital, HMO, doctor's office or law office plus sample medical-legal research and document assignments from the instructor. In addition, the course will meet one (1) hour each week. Two or more class absences will require repeat of the course. 2 credits
Prerequisite: A C grade or better in each paralegal nurse specialty course; internship must be taken in last semester of program.

## 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, Edwards, Douglass, Emerson, Hawthorne, M elville, Dickinson, and Whitman. 3 lectures, 3 credits
Prerequisite: WRT-101
JGeneral Education Course

## LIT-202 American 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, Wright, Ginsberg, and Rich.
3 lectures, 3 credits
Prerequisite: WRT-101
JGeneral Education Course

## LIT-203 World 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 Sor Juana. 3 lectures, 3 credits Prerequisite: WRT-101
JGeneral Education Course
§Diversity Course

LIT-204 World 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, Mahfouz, and Achebe. 3 lectures, 3 credits
Prerequisite: WRT-101
JGeneral 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 Beowulf and such authors as Chaucer, Kempe, Shakespeare, Milton, Dryden, Pope, and Swift.
3 lectures, 3 credits
Prerequisite: WRT-101
JGeneral 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 lectures, 3 credits Prerequisite: WRT-101 JGeneral 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 works by such authors as Wheatley, Douglass, Ellison, Hurston, Baldwin, M alcolm X, M orrison, and Walker. 3 lectures, 3 credits
Prerequisite: WRT-101
JGeneral 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 lectures, 3 credits Prerequisite: WRT-101 JGeneral 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, Mann, and the Post-Moderns. 3 lectures, 3 credits
Prerequisite: WRT-101
\}General 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, Jews, Asians, Blacks, and Italians. 3 lectures, 3 credits Prerequisite: WRT-101 \}General Education Course \}Diversity Course

## 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 lectures, 3 credits
Prerequisite: WRT-101
JGeneral 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 works that are representative of a number of nations and cultures.
3 lectures, 3 credits
Prerequisite: WRT-101
JGeneral Education Course
\}Diversity Course

LIT-225 Modern Irish Literature
is a study of the Irish literary revival of the nineteenth and twentieth centuries. The works of such major Irish authors as Synge, Yeats, O'Casey and Joyce 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 lectures, 3 credits
Prerequisite: WRT-101
LIT-228 Women 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 Julian of Norwich, Dickinson, Chopin, Woolf, Emecheta, M orrison, and Tan.
3 lectures, 3 credits
Prerequisite: WRT-101
JGeneral Education Course
\}Diversity Course

## MAT - MATHEMATICS \& COMPUTER SCIENCE

CIS courses are listed under CIS-Computer Science.

## MAT-010 Basic Mathematics

Support is a recitation class designed to provide additional instructional time for students enrolled simultaneously in MAT-011. 1 lecture, 1 credit (non-degree) Corequisite: M AT-011

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 lectures, 3 credits (non-degree)

## MAT-030 Algebra Review is

 designed for students with previous experience in high school algebra who wish to review prior to placement testing. Review topics include: first and second degree equations, rational expressions, polynomials, factoring, graphing, systems of equations, and radicals. While MAT030 might help prepare students for placement testing, it does not replace the remedial algebra required of students once they fall below the cutoff scores on the placement exam.1 lecture, 1 credit (non-degree)

MAT-031 Algebra A; MAT-032
Algebra $\mathbf{B}$ is a tw 0 -semester basic algebra course equivalent in content to and satisfying the requirements of M AT-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 MAT-035 may elect to enroll in the MAT-031 and MAT-032 sequence.

MAT-031: 3 lectures, 3 credits (nondegree) Prerequisite: MAT-011 or equivalent by testing.
MAT-032: 3 lectures, 3 credits (nondegree) Prerequisite: MAT-031.

MAT-033 Algebra A Support is a recitation class designed to provide additional instructional time for students enrolled simultaneously in MAT-031. 1 lecture, 1 credit (non-degree) Corequisite: MAT-031

MAT-034 Algebra B Support is a recitation class designed to provide additional instructional time for students enrolled simultaneously in MAT-032.
1 lecture, 1 credit (non-degree) Corequisite: MAT-032

MAT-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, exponents, polynomials, linear and quadratic equations, and rational expressions. 4 lectures, 4 credits (non-degree) Prerequisite: MAT-011 and appropriate placement scores.

## MAT-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 lectures, 4 credits (non-degree) Prerequisite: MAT-031/032 sequence or MAT-035 or by proficiency examination.

## MAT-130 Contemporary

Mathematics is a study of some of the fundamental concepts in mathematics and computers. Topics considered include number systems, symbolic logic, set theory, principles of counting, probability, and an introduction to computers and computer programming. Applications of these concepts in various fields of study are included in the course. 3 lectures, 3 credits
Prerequisite: MAT-031/032 sequence or MAT-035 or equivalent by testing. JGeneral Education Course

## MAT-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 lectures, 3 credits
Prerequisite: MAT-031/032 sequence or MAT-035 or equivalent by testing. JGeneral Education Course

## MAT-155 Finite Mathematics is

 an introduction to the solution of problems in the management, natural, behavioral, and social sciences. Topics covered include mathematical models, matrices, linear systems, and linear programming.3 lectures, 3 credits
Prerequisite: MAT-031/032 sequence or MAT-035 or equivalent by testing. JGeneral Education Course

## MAT-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 lectures, 4 credits Prerequisite: MAT-045 with a grade of C or better or by proficiency examination. JGeneral Education Course
## 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 lectures, 3 credits
Prerequisite: MAT-045 with a grade of C or better or by proficiency examination JGeneral 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 nonparametric statistics. Laboratory assignments using a statistical software package are included in the course.
2 lectures, 2 labs, 3 credits Prerequisite: MAT-150 with a grade of $C$ or better or by permission of the Department Head.
JGeneral Education Course
MAT-280 Calculus I is a study of limits, continuity, the derivative of a function, differentiation of algebraic, trigonometric, inverse trigonometric, exponential and logarithmic functions, applications of the derivative, antidifferentiation, area under a curve, the definite integral, the Fundamental Theorem of the Calculus and its applications. 4 lectures, 4 credits Prerequisite: MAT-180 with a grade of $C$ or better or by permission of the Department Head.
\}General Education Course
MAT-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 lectures, 4 credits
Prerequisite: MAT-280 with a grade of $C$ or better or by permission of the Department Head. \}General 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 lectures, 4 credits Prerequisite: MAT-281 with a grade of $C$ or better or by permission of the Department Head.
JGeneral Education Course

MAT-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 lectures, 4 credits Prerequisite: MAT-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 lectures, 4 creditsPrerequisite: MAT-280 or by permission of the Department Head.

## MFG - MANUFACTURING TECHNOLOGY

MFG-119 Manufacturing 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 lectures, 2 labs, 3 credits

## MFG-122 Machine Tool

Principles I introduces students to the basic hands-on theoretical skills necessary of a machinist. Machining processes such as drilling, milling, turning, and grinding will be studied and developed. Theoretical skills such as machine terminology, speeds and feeds, uses of machinery handbook, and safety issues are also included. It would be beneficial if incoming students had some exposure to basic machining principles and equipment.
2 lectures, 2 labs, 3 credits

MFG-123 Quality and
Measurements I is a study of the fundamental skills used by machinists such as blueprint reading and drafting standards used to create and interpret drawings. Student will also study and use precision measuring equipment such as calipers, dial indicators, gauges, and hole measuring devices in a practical laboratory. Basic machinist math topics such as fractions, decimals, metrics, and algebra will also be addressed. 2 lectures, 2 labs, 3 credits Prerequisite: MAT-011 or a passing score on the MAT-011 placement exam

MFG-219 Manufacturing Design
II is a study of the intermediate to advanced functionality of Parametric Technology Corporation's Pro/ENGINEER 3D solid modeling software. 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 lectures, 2 labs, 3 credits Prerequisite: M FG-119

MFG-220 Manufacturing Design III is a study of the design and analysis techniques using Parametric Technology Corporation's Pro/ENGINEER 3D solid modeling software 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 lectures, 2 labs, 3 credits Prerequisite: M FG-219

## MFG-221 Manufacturing Design

 IV is a study of the basic functionality and use of the manufacturing module 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 to manufacture products. 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 lectures, 2 labs, 3 credits Prerequisite: M FG-220
## MFG-222 Machine Tool

Principles II continues the work of Machine Tool Principles I by broadening the basic skills of a machinist by introducing intermediate and advanced topics such as milling and turning tools and their geometry, tool inserts, coolants and basic metallurgy. Students will experience these topics both in theory and hands-on in a practical laboratory setting.
2 lectures, 2 labs, 3 credits
Prerequisite: MFG-122

## MFG-223 Quality and

 Measurements II continues the work of Quality and M easurements I by expanding the skills of quality control with the introduction of statistical process control. Advanced measuring tools and techniques such as coordinate measuring, surface roughness, calibration, and optical comparators will be used in a practical laboratory. Geometric dimensioning and tolerancing as applied to engineering drawings will be studied. Intermediate machinist math topics such as algebra, geometry, and trigonometry will be addressed in context. 2 lectures, 2 labs, 3 credits Prerequisite: M FG-123
## MFG-224 Advanced Tooling,

 Materials, and Automation includes an overview of materials and processes used in the manufacture of precision products and an advanced study of metal cutting tooling. A comparative study of casting, welding, heat-treating, stamping, cutting, EDM, CNC machining, grinding, etc., will be undertaken, with emphasis on precision machining equipment and automation. The relationship between tooling, cutting lubricants, and material properties will be explored. The interaction of machine and tool cutting factors in determining production rates will be investigated. 2 lectures, 4 labs, 4 credits Prerequisites: M FG-222, M FG-223, DFT-107MFG-225 Process Improvement
will provide students with the skills necessary for evaluating, documenting, and improving manufacturing and other business processes. Students will gain hands-on experience using techniques such as process mapping, value stream mapping, and systems diagramming to identify both existing processes and for modeling potential improvements. The course will also cover both the technical and human issues associated with the implementation of changes as well as strategies for remediation 1 lecture, 2 labs, 2 credits Prerequisite: TEC-180 Corequisite or Prerequisite: M FG-224

## MFG-226 Methods, Fixture

 Design, and Estimating will explore and develop the skills necessary to mentally visualize how to effectively and economically make precision-machined parts. Students will learn how to select materials, type of process, type of equipment, sequence of operations, fixtures, tools, etc. Methods development and documentation will be demonstrated and practiced. Jig and fixture types and design criteria will be reviewed. 2 lectures, 2 labs, 3 credits Prerequisites: MFG-224 and DFT210 or MFG-119
## MFG-227 CNC Programming

 provides the fundamentals of programming Computer Numerical Control equipment with a heavy concentration on CNC turning and machining centers. Included in this course will be language and graph-ics-based programming, automated features and capabilities, advanced CNC applications and integration. Students will receive hands-on programming experience using industry preferred software and controllers. 2 lectures, 4 labs, 4 credits Prerequisites: M FG-224 and DFT210 or MFG-119MFG-254 Robotics is an introduction to the principles 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, adaptation, programming maintenance, operation and applications of robots in industry. Laboratory assignments on robotic activities are included in the course.
2 lectures, 2 labs, 3 credits Prerequisite: CIS-163 or by permission of the Department Head.

MFG-MUA

MFG-257 Introduction to Manufacturing Systems utilizes high-tech hardware (CNC lathe and milling machines, vision inspection system, robotic arms, conveyors, etc.) and industrial software (CAM) in order to control, manage, operate and monitor manufacturing processes
2 lectures, 2 labs, 3 credits
Prerequisite: By permission of the Department Head.

## MFG-464 Co-op Work

Experience (Manufacturing) provides the student with practical, supervised work experience within the broad field of manufacturing technology. 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 Co-op Office.
1 lecture, plus 240 minimum hours work experience distributed over the semester or over combined summer sessions. , 4 credits
Prerequisites: MFG-222 and M FG-123

## MOA - MEDICAL OFFICE ASSISTANT

MOA-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 lectures, 3 credits

MOA-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 lectures, 3 credits

MOA-145 Medical Office Assisting: An Overview is offered to candidates for the Certified Medical Assistant Examination administered by the American Association of Medical 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 lectures, 3 credits

## MOA-200 Pharmacology 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 lectures, 2 credits
Prerequisite: MOA-140

## MOA-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 lectures, 3 labs, 4 credits Prerequisite: MOA-140
## MOA-203 Medical 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 lectures, 2 labs, 3 credits Corequisites: MOA-140 and INF-213 (Restricted to Medical Office Assistant curriculum students).
## MOA-204 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 lectures, 2 labs, 3 credits Prerequisite: MOA-203 (Restricted to Medical Office Assistant curriculum students).MOA-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. Medical law and ethics are also emphasized 2 lectures, 2 credits
Corequisite: M OA-141

## MOA-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 lectures, 4 labs, 4 credits Prerequisites: MOA-140 and M OA-141

## MOA-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 lectures, 3 labs, 4 credits Prerequisite: MOA-240

MOA-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 credit
Prerequisite: MOA-141
Corequisites: MOA-203 and MOA-241

## MOA-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: MOA-243

## MUA - APPLIED MUSIC

MUA-101 Bass I provides instruction in bass 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 lecture, 1 lab, 1 credit

MUA-102 Guitar I 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 lecture, 1 lab, 1 credit

MUA-103 Percussion I provides instruction in percussion 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 lecture, 1 lab, 1 credit

MUA-104 Piano I 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 lecture, 1 lab, 1 credit

MUA-105 Strings I provides instruction in string instruments designed to develop the student's level of proficiency. The student attends one lesson per week. Half-hour individual lesson times are arranged during the first week of classes.
1 lecture, 1 lab, 1 credit
MUA-106 Voice I 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 lecture, 1 lab, 1 credit

## MUA-107 Woodwinds/Brass I

 provides instruction in woodwinds and brass 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 lecture, 1 lab, 1 creditMUA-231 Bass II provides instruction in bass 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 lecture, 1 lab, 1 credit Prerequisite: MUA-101

MUA-232 Bass III provides instruction in bass 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 lecture, 1 lab, 1 credit Prerequisite: MUA-231

MUA-233 Bass IV provides instruction in bass 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-232
MUA-234 Guitar II 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-102
MUA-235 Guitar III 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-234
MUA-236 Guitar IV 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-235
MUA-237 Percussion II provides instruction in percussion 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-103
MUA-238 Percussion III provides instruction in percussion 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-237
MUA-239 Percussion IV provides instruction in percussion 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-238

MUA-240 Piano II 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-104
MUA-241 Piano III 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-240
MUA-242 Piano IV 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-241
MUA-243 Strings II provides instruction in string instruments designed to develop the student's level of proficiency. The student attends one lesson per week. Half-hour individual lesson times are arranged during the first week of classes.
1 lecture, 1 lab, 1 credit
Prerequisite: MUA-105
MUA-244 Strings III provides instruction in string instruments designed to develop the student's level of proficiency. The student attends one lesson per week. Half-hour individual lesson times are arranged during the first week of classes.
1 lecture, 1 lab, 1 credit
Prerequisite: MUA-243
MUA-245 Strings IV provides instruction in string instruments designed to develop the student's level of proficiency. The student attends one lesson per week. Half-hour individual lesson times are arranged during the first week of classes.
1 lecture, 1 lab, 1 credit
Prerequisite: MUA-244
MUA-246 Voice II 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-106

MUA-247 Voice III 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-246
MUA-248 Voice IV 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-247

## MUA-249 Woodwinds/Brass II

provides instruction in woodwinds and brass 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-107
MUA-250 Woodwinds/Brass III provides instruction in woodwinds and brass 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-249
MUA-251 Woodwinds/Brass IV provides instruction in woodwinds and brass 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 lecture, 1 lab, 1 credit
Prerequisite: MUA-250

## 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 lectures, 3 credits
JGeneral Education Course

## MUS-103 Fundamentals of

Music is a study of such rudiments of music as notation, the structure of scales, intervals, keys, triads, and simple harmonic progressions.
3 lectures, 3 credits

MUS-105 A History of Jazz 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 lectures, 3 credits
MUS-107 Music History I is a study of the historical and stylistic development of music from the Gothic period through the Baroque period.
3 lectures, 3 credits
\}General Education Course
MUS-108 Music History II is a study of the historical and stylistic development of music from the Classical period to the present. 3 lectures, 3 credits \}General Education Course

MUS-110 Music, 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, and Contemporary periods. 3 lectures, 3 credits
\}General Education Course
MUS-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.
1 lecture, 2 lab, 2 credits

## MUS-119 Songwriting Workshop

provides students with a solid background in the art and craft of songwriting. Students will study the elements of songwriting: lyrics, rhythm, melody, harmony, and song structure. Students will work on their original compositions through a series of group and solo activities. 1 lecture, 2 labs, 2 credits

## MUS-120 Pop/Rock Ensemble I

 requires students to study and to perform in a variety of popular music styles. Special attention will be given to the development of creative skills and reading pop charts. Students are expected to participate in concerts for college ceremonies and functions. 1 lecture, 1 lab, 1 creditMUS-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. 1 lecture, 1 lab, 1 credit

MUS-125 Orchestra I requires students to study and to perform standard and contemporary instrumental literature and to participate in concerts for college ceremonies and functions. 1 lecture, 1 lab, 1 credit

MUS-131 Class Piano I is an introductory course designed to provide fundamental piano instruction. 1 lecture, 2 labs, 2 credits

MUS-132 Music 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.
1 lecture, 2 labs, 2 credits

## MUS-133 Music Dictation and

 Sight Reading is an introduction to score reading, the rudiments of conducting, musical dictation, and other elements that are essential to an understanding of music.1 lecture, 2 labs, 2 credits

## MUS-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.1 lecture, 2 labs, 2 credits

## MUS-137 Guitar in the

Classroom is a systematic approach to basic guitar technique and an introduction to contemporary music. 1 lecture, 2 labs, 2 credits

## MUS-140 Jazz Ensemble I

requires students to study and to perform in a variety of jazz styles. Special attention will be given to the development of improvisational skills and reading jazz charts. Students are expected to participate in concerts for college ceremonies and functions.
1 lecture, 1 lab, 1 credit

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 lectures, 3 credits

## MUS-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 software 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 lectures, 3 credits

MUS-152 Music 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 lectures, 3 credits

## MUS-153 Piano Pedagogy I

 studies effective teaching skills for elementary and intermediate levels of piano instruction, including the investigation of specific solo and developmental piano repertoire and method books. It introduces fundamental business aspects of teaching private piano.2 lectures, 2 labs, 3 credits

MUS-220 Pop/Rock Ensemble II
requires students to study and to perform in a variety of popular music styles. Special attention will be given to the development of creative skills and reading pop charts. Students are expected to participate in concerts for college ceremonies and functions.
1 lecture, 1 lab, 1 credit
Prerequisite: MUS-120
MUS-221 Pop/Rock Ensemble III
requires students to study and to perform in a variety of popular music styles. Special attention will be given to the development of creative skills and reading pop charts.
Students are expected to participate in concerts for college ceremonies and functions.
1 lecture, 1 lab, 1 credit
Prerequisite: MUS-220
MUS-222 Pop/Rock Ensemble IV requires students to study and to perform in a variety of popular music styles. Special attention will be given to the development of creative skills and reading pop charts. Students are expected to participate in concerts for college ceremonies and functions.
1 lecture, 1 lab, 1 credit
Prerequisite: MUS-221
MUS-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 lecture, 2 labs, 2 credits Prerequisite: MUS-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. 1 lecture, 2 labs, 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 lecture, 2 labs, 2 credits
Prerequisite: MUS-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 lecture, 2 labs, 2 credits
Prerequisite: MUS-241

## MUS-246 Jazz Ensemble II

requires students to study and to perform in a variety of jazz styles. Special attention will be given to the developmment of improvisational skills and reading jazz charts. Students are expected to participate in concerts for the college ceremonies and functions.
1 lecture, 1 lab, 1 credit
Prerequisite: MUS-140

## MUS-247 Jazz Ensemble III

requires students to study and to perform in a variety of jazz styles. Special attention will be given to the development of improvisational skills and reading jazz charts. Students are expected to participate in concerts for the college ceremonies and functions.
1 lecture, 1 lab, 1 credit
Prerequisite: MUS-246

## MUS-248 Jazz Ensemble IV

requires students to study and to perform in a variety of jazz styles. Special attention will be given to the developmment of improvisational skills and reading jazz charts. Students are expected to participate in concerts for the college ceremonies and functions.
1 lecture, 1 lab, 1 credit
Prerequisite: MUS-247
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 lectures, 3 credits
Prerequisite: MUS-150

## MUS-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,
SMPTE time code and MIDI.
3 lectures, 3 credits
Prerequisite: MUS-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 lectures, 3 credits
Prerequisite: MUS-152

## MUS-253 Piano Pedagogy II

 continues the study of effective teaching skills for intermediate to advanced levels of piano instruction, including the investigation of specific solo and developmental repertoire that are standard in the field of piano pedagogy and performance. The course surveys and examines current piano methods, literature and materials. It further delineates aspects of successful business practices for the private and/or non-profit piano studio.2 lectures, 2 labs, 3 credit
Prerequisite: MUS-153 Piano
Pedagogy I
MUS-255 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.
1 lecture, 1 lab, 1 credit
MUS-256 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.
1 lecture, 1 lab, 1 credit
MUS-257 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.
1 lecture, 1 lab, 1 credit

MUS-258 Orchestra II requires students to study and to perform standard and contemporary instrumental literature and to participate in concerts for college ceremonies and functions.
1 lecture, 1 lab, 1 credit
MUS-259 Orchestra III requires students to study and to perform standard and contemporary instrumental literature and to participate in concerts for college ceremonies and functions.
1 lecture, 1 lab, 1 credit
MUS-260 Orchestra IV requires students to study and to perform standard and contemporary instrumental literature and to participate in concerts for college ceremonies and functions.
1 lecture, 1 lab, 1 credit

## NUR - NURSING

NUR-181 Physical Assessment is a first-level course in the nursing sequence which focuses on taking a nursing history including a psychosocial 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 labs, 1 credit
Prerequisite: Admission to the Department
Corequisites: NUR-182, NUR-183, BIO-109, and PSY-101

## NUR-182 Pharmacology for

Nurses is a first-level course in the nursing sequence which introduces the student to the drug classification system. Students will learn basic actions and side effects of drugs and drug regulations. Mathematical 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 lecture, 1 credit
Prerequisite: Admission to the Department Corequisites: NUR-181, NUR-183, BIO-109, and PSY-101

NUR-183 Basic Concepts and Skills of Nursing is a first-level course in the nursing sequence. Concepts developed throughout the program are introduced. Orem's nursing model is presented as the organizing framework 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 lectures, 12 labs, 6 credits Prerequisite: Admission to the Department
Corequisites: 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 lectures, 12 labs, 7.5 weeks, 4 credits Prerequisites: NUR-181, NUR-182, NUR-183, BIO-109, and PSY-101 Corequisites: 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 lectures, 12 labs, 7.5 weeks, 4 credits Prerequisites: NUR-181, NUR-182, NUR-183, BIO-109, and PSY-101 Corequisites: BIO-209, PSY-106, and NUR-281NUR-284 Maternal-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 lectures, 12 labs, 7.5 weeks, 5 credits Prerequisites: NUR-281 \& NUR-282 Corequisites: 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 psychosocial behaviors. Concentration is on the interpersonal 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 lectures, 12 labs, 7.5 weeks, 4 credits Prerequisites: NUR-281 \& NUR-282 Corequisites: 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 neurosensory 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 lectures, 12 labs, 7.5 wks., 4 credits Prerequisites: NUR-284 \& NUR-285 Corequisite: NUR-291

## NUR-PHR

## 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 exercises, patient care scenarios, role play, and discussion will be utilized.
4 lectures, 12 labs, 7.5 wks., 4 credits Prerequisites: NUR-284 and NUR285 Corequisite: NUR-290

## PHR - PHILOSOPHY \& <br> RELIGION

## PHR-100 Reasoning

is an introduction to the theory and practice of critical thinking. Topics covered may include the qualities and attitudes of the critical thinker; the nature and importance of rationality; the weighing of evidence and the rationality of belief; common errors in reasoning (e.g., fallacies); the evaluation of concepts and definitions; the analysis and evaluation of arguments in ordinary language; argument diagramming; and reasoning about causes and probability. 3 lectures, 3 credits

## 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, Marx, Kierkegaard, and Sartre. Topics of discussion include the nature and limits of human knowledge, the existence of God, the differences between right and wrong conduct, the nature of the good life, and the meaning and value of human existence.
3 lectures, 3 credits
\}General Education Course

PHR-102 Contemporary Moral
Issues is an introduction to applied or practical ethics. This involves discussions of specific moral problems, issues, controversies, and questions. Topics may include abortion; euthanasia; the death penalty and other punishments; sexual morality; pornography and censorship; discrimination on the basis of race, gender, or sexual orientation; drugs; environmental ethics; the moral status of animals; and the meaning of virtue and vice.
3 lectures, 3 credits.
JGeneral Education Course
PHR-103 Basic Logic is an introduction to the principles and methods of correct reasoning. Topics of discussion include the relationship between logic and language; the distinction between 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 lectures, 3 credits
JGeneral 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 between liberty, equality, and justice; and the human search for the meaning of life.
3 lectures, 3 credits
\}General Education Course
PHR-105 Professional Ethics is an introductory study of major philosophical and moral issues, problems, and questions arising within the healthcare, legal, and business professions. General topics of discussion may include: what counts as a profession; professional codes of conduct; the pro-fessional-client relationship; the pro-fessional-employer relationship; privacy and confidentiality; informed consent; character, regulation, and training; and collective responsibility. 3 lectures, 3 credits $\}$ General 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 philosophy; the nature of ultimate reality; the nature of the self; the nature and existence of God; the nature and limits of human knowledge; 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 lectures, 3 credits
\}General Education Course
§Diversity Course

## PHR-110 Introduction to Ethical

Theory is a study of the basic theories, methods, and problems of ethics. Topics may include the study of the moral theories of Aristotle, Aquinas, Hobbes, Kant, M ill, and Rawls; the nature and meaning of moral terms; moral absolutism and relativism; the nature of moral reasoning; conceptions of the good life; free will, determinism, and moral responsibility. 3 lectures, 3 credits.
\}General 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 lectures, 3 credits
JGeneral Education Course
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, Judaism, Christianity, and Islam. Some attention is also given to the religions of ancient Middle Eastern and Mediterranean peoples, to ancient and modern tribal religions, and to contemporary sectarian and cultic movements.
3 lectures, 3 credits
JGeneral Education Course
\}Diversity Course

PHR-122 Women and Religion analyzes the relationship of women to the major religious traditions of the world, including Judaism, 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 lectures, 3 credits
\}General Education Course \}Diversity Course

## PHR-124 The Christian

Scriptures is an introductory study of traditional and modern perspectives on the Old and New Testaments, with primary emphasis on the New Testament.
3 lectures, 3 credits
\}General Education Course
PHR-125 The Hebrew Scriptures
is an introductory study of traditional and modem perspectives on the Hebrew Bible. The relationship between the Bible and the Talmud will also be discussed. 3 lectures, 3 credits
\}General Education Course
PHR-126 The Islamic Scriptures is an introductory study of the origins, content, and meaning of the primary sacred text of Islam, the Koran (Qur'an). The relationship between the Koran and the Hadith (a record of sayings and actions of Muhammed) will also be discussed. 3 lectures, 3 credits

## JGeneral Education Course

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 theoyy; and issues in the philosophy of logic. 3 lectures, 3 credits
Prerequisite: PHR-103 or MAT-130
\}General Education Course

## PHY - PHYSICS

PHY-185 Introduction to Physics covers a series of topics: Newton's Laws of Motion, 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 lectures, 3 labs, 4 credits
JGeneral Education Course
PHY-186 General Physics I is the first half of a two-semester, algebrabased 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 lectures, 3 labs, 4 credits
Prerequisite: MAT-045 with a grade of $C$ or better.
Recommended prerequisite: High School Trigonometry and one year of High School Physics or PHY-185 JGeneral Education Course

PHY-280 Physics I is the first semester of a three-semester, calcu-lus-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 physics are investigated and applied to problem solving.
3 lectures, 3 labs, 4 credits
Prerequisite: MAT-180 with a grade of $C$ or better.
Corequisite: M AT-280
Recommended prerequisite: PHY-185 or one year of High School Physics JGeneral 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 lectures, 3 labs, 4 credits Prerequisite: PHY-186 with a grade of $C$ or better.
JGeneral Education Course

PHY-290 Physics II is the continuation of PHY-280 Physics I, and is primarily a study of electricity and magnetism. It covers electrostatics, electrical circuits, magnetic fields and forces, capacitance and inductance, Maxwell's equations, and the properties of fluids.
3 lectures, 3 labs, 4 credits
Prerequisites: MAT-280, PHY-280 with grades of C or better. Corequisite: MAT-281
\}General Education Course
PHY-291 Physics III is the continuation of PHY-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 lectures, 3 labs, 4 credits Prerequisites: MAT-281, PHY-290, with grades of C or better. Recommended corequisite: M AT-282 JGeneral 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 foundation 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 lectures, 4 credits Prerequisites: MAT-282 and PHY-280 with grades of C or better.

## POL - POLITICAL SCIENCE

POL-101 American 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 Western 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 lectures, 3 credits JGeneral Education Course

## POL-102 International Relations

 is an examination of the basic elements and processes of the modern nationstate system. Political power, nationalism, diplomacy, international law, international organizations, bal-ance-of-power strategies, imperialism, regionalism, polycentrism, and current world issues are analyzed. 3 lectures, 3 creditsJGeneral Education Course

## POL-103 Modern Political

Ideologies focuses on the ideologies that have dominated contemporary world politics. Such theories as Socialism, Communism, Fascism, and Democracy are studied.
3 lectures, 3 credits
JGeneral Education Course
(Offered only in the spring)

## 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 Jersey and Bergen County.
3 lectures, 3 credits
JGeneral Education Course

## POL-106 Themes in U.S. History (Modern American 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 lectures, 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 lectures, 3 credits JGeneral Education Course (Offered only in the fall)

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 labor-management 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 lectures, 3 credits

POL-122 Collective Bargaining 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 lectures, 3 credits

## POL-461-463 Co-op Work

 Experience (Political Science) provides a student with practical, supervised work experience in the area of political science. This program is under professional guidance in a college approved work environment. Job placement assistance is available through the Cooperative Education Office.POL-461, 1 lecture, plus 60 minimum hours work experience distributed over the semester, 1 credit POL-462, 1 lecture, plus 120 minimum hours work experience distributed over the semester, 2 credits POL-463, 1 lecture, 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 lectures, 3 credits
JGeneral 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 Manual of Mental 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 lectures, 3 credits
\}General 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 lectures, 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 selfawareness and self-concept. Source materials in the psychology of human relations, communications, group behavior, adjustment, and leadership are studied and discussed.
3 lectures, 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 psy-cho-social, moral, and language development as well as the effect of work, gender, intelligence, personality, health, and other factors on human development are examined. 3 lectures, 3 credits
JGeneral 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 psycho-social characteristics of an aging population, how to deal with psychobiological changes, changes in mental functions, mental disorders and their treatment, preretirement counseling, parent-child relations, sex differences in the aging process, crosscultural perspectives on aging, and life review through oral history and autobiography. 3 lectures, 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 lectures, 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 hoursJGeneral Education Course

## PSY-115 Behavior Modification

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 lectures, 3 credits

## PSY-121 Comparative

Psychology 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 between 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 lectures, 3 credits
(Offered only in the fall)

## PSY-122 Environmental

Psychology is the study of the effects of environmental change of human behavior. Topics considered include ternitoriality, mobbing activity, sexual rituals, habitat destruction, and internal physical and environmental structures. This course is offered at off-campus sites (e.g., The Florida Everglades). See instructor before registering. 3 lectures, 3 credits
(Offered only in the spring)

## 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 lectures, 3 credits
PSY-127 Stress Management is a study of stresfful tension and of its psychological and physiological management. Students practice several techniques of coping with stress including problem solving, relaxation techniques, biofeedback, exercise, and work strategies. Personal stress management approaches are emphasized. 3 lectures, 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 lectures, 3 credits
Prerequisite: PSY-101
JGeneral 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 self-concept, relationships with parents, and the maturation process.
3 lectures, 3 credits
Prerequisite: 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 lectures, 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 lectures, 3 credits
Prerequisite: PSY-101
PSY-207 Psychology of Women is an in-depth examination of the psychology of women. The course analyzes 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 lectures, 3 credits
Prerequisite: PSY-101
JGeneral Education Course
\}Diversity Course

## PSY-461-463 Co-op Work

 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 Co-op office.PSY-461 1 lecture, plus 60 minimum hours work experience distributed over the semester, 1 credit PSY-462 1 lecture, plus 120 minimum hours work experience distributed over the semester, 2 credits
PSY-463 1 lecture, plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: PSY-101 or by permission of the Department Head.

## RAD - RADIOGRAPHY

## RAD-180 Introduction to

Radiography is an exploration of the basic aspects of the health care delivery system which includes an overview of the medical imaging profession, patient care principles, practices, and medical terminology. Topics introduced in this course are professional responsibilities, code of ethical practice, Patient's Bill of Rights, medical law, communication, infection control, transfer techniques and the management of basic medical emergencies. Terminology, as it relates to the subject matter, will be introduced and reinforced.
2 lectures, 2 credits
Corequisites: RAD-181, RAD-182
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 lectures, 6 labs, 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 labs, 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 lectures, 2 credits
Prerequisite: RAD-281

RAD-184 Advanced Imaging Equipment and Patient Care Practices is a highly specialized course that focuses on advanced imaging systems, equipment, quality management and patient care practices. Topics include infection control, transmission precautions, medical/surgical asepsis, venipuncture, contrast media, complications and the management of medical equipment. In addition, this course will continue the student's exploration of all imaging equipment and quality management practices.
3 lectures, 3 credits
Prerequisites: RAD-276, RAD-281 and RAD-283
Corequisites: RAD-280, RAD-285, RAD-286 and RAD-183

## 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 lectures, 3 labs, 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 lectures, 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 RI, 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 Magnetic Resonance Imaging. 3 lectures, 3 credits
Prerequisite: Registered Radiologic Technologist and NJ License

## RAD-253 Magnetic Resonance

 Imaging Clinical Practicum is a75 -hour clinical experience in a neighboring hospital or specialty imaging center. The student will perform routine MRI examinations on patients under direct supervision of a specialty technologist. Clinical records will be maintained and monitored by faculty.
75 labs, 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 supenvision of a specialty technologist. Clinical records will be maintained and monitored by faculty.75 labs, 1 credit
Prerequisite: RAD-251

## RAD-275 Special Imaging

 Equipment and TherapeuticModalities is a highly specialized course that introduces diverse imaging and therapeutic modalities that are currently used in medical imaging today.
3 lectures, 3 credits
Prerequisites: RAD-276, RAD-281, and RAD-283
Corequisites: RAD-280, RAD-285, RAD-286, and RAD-183

## RAD-276 Principles of Imaging

Equipment focuses on orienting the student radiographer to the fundamental principles, operation and application of radiation-producing imaging equipment used in diagnostic imaging. Topics of this course include atomic structure, radiation, diagnostic x-ray circuit, tomography, image intensification, mobile and automatic exposure control units. Radiation safety and patient care principles are reinforced.
3 lectures, 3 credits
Corequisites: RAD-281, RAD-282
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 software.
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 lectures, 3 labs, 4 credits Prerequisites: RAD-180, RAD-181, and RAD-182

RAD-282 Radiography Clinical II requires students to spend two clinical days a week 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 labs, 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 thirty-two hour weeks meeting established requirements for compe-tency-based clinical education. 384 labs, 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 lectures, 3 labs, 4 credits
Prerequisites: RAD-281 and RAD-283

## RAD-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 labs, 1 credit
Prerequisites: 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 lectures, 3 labs, 4 credits Prerequisites: RAD-276, RAD-285, and RAD-286

## 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 labs, 2 credits
Prerequisites: 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 competencybased 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 labs, 3 credits Prerequisites: 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 REA201 in same or consecutive semesters to qualify for the New Jersey Real Estate Salesperson's Examination which must be taken within 1 year after completion of REA-201. 3 lectures, 3 credits

## REA-102 Acquisition and

 Financing of Real Estate will include property rights, title concepts, liens, contracts, mortgages, deeds, and other property concepts. This course should not be taken by Real Estate Sales Licensees or Paralegal Students. 3 lectures, 3 credits
## REA-201 Principles of Real

Estate II is a structured review of real estate law with emphasis on leases, landlord-tenant relations, 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 in same or consecutive semesters to qualify as a candidate for the New Jersey Real Estate Salesperson's Examination which must be taken within 1 year after completion of this course. 3 lectures, 3 credits

## REA-203 N.J. Environmental

 Regulations is a study of Environmental Regulations in New Jersey and their impact on development, expansion of existing structures, and infrastructure serving municipal land use. Existing statutes, administrative regulations, and recent news articles will be reviewed. Students will be required to submit a research paper involving an assigned problem.3 lectures, 3 credits
Prerequisites: BUS-101 and REA-101
REA-204 Real Estate Leasing is a study of New Jersey commercial and residential leasing, civil rights leasing laws, condominiums and cooperatives
2 lectures, 2 credits
Prerequisites: BUS-101 and REA101

## REA-205 Real Estate Finance is

a study of Real Estate Finance including introduction to appraisal, mortgage calculations, and investment analysis.
1 lecture, 1 credit
Prerequisites: BUS-101 and REA101

## 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 patient 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 lectures, 3 labs, 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 credits
RSP-122 Clinical Medicine 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 presented in this course.
3 lectures, 3 credits

## RSP-200 Pharmacology for

 Respiratory Therapists introduces the student to the medications utilized in the treatment of patients with acute and chronic cardiopulmonary disorders.2 lectures, 2 credits
Corequisites: 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 lectures, 3 labs, 4 credits Prerequisite: BIO-109
Corequisite: 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
Prerequisites: RSP-222 and RSP-225

RSP-227 Management in Health
Care provides the student with an opportunity to learn the skills necessary to supervise a respiratory therapy 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 health profession computer labs. 2 lectures, 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. It provides the student with an opportunity to operate ventilators, to change ventilator modalities, and to repair ventilators. 3 lectures, 3 labs, 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 labs, 2 creditPrerequisite: RSP-226
Corequisites: 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-231
## RSP-240 Diagnostic Monitoring

 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 interpretation of this data in diagnosis and evaluation of treatment of the patient. Attention is given to fundamental physiological concept because these concepts provide a foundation for discussion of cardiopulmonary pathophysiology and common cardiopulmonary abnormalities that occur in patients.3 lectures, 3 labs, 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, airway management, mechanical ventilation, resuscitation, cardiopulmonary pathophysiology and disorders specific to this specialty.
2 lectures, 2 labs, 3 credits Prerequisite: RSP-229

## RTT - RADIATION THERAPY

## RTT-110 Introduction to

 Radiotherapy and Patient Care Management is an exploration of the foundation of radiation therapy practices and variety of roles for the professional in the delivery of health care. Principles of practice, professional responsibilities, medical law and ethics will be addressed.2 lectures, 2 credits

## RTT-120 Radiation Therapy

Practices I introduces the student radiation therapist to treatment equipment and techniques. Topics include patient immobilization, localization, simulation, documentation, patient positioning, treatment delivery parameters, prescriptions, and patient care.
3 lectures, 3 labs, 4 credits Corequisite: RTT-110

## RTT-121 Radiation Therapy

 Clinical Practicum I serves as a clinical orientation to radiation therapy where students are afforded an opportunity to develop professional clinical skills and knowledge through structured rotations and assignments in radiation therapy. Treatment competencies and related objectives will be used to measure clinical outcomes. Students will be afforded 352 hours for this clinical experience.2 credits, 352 hours
RTT-130 Radiation Biology and
Safety explores the cellular and systemic effects of radiation exposure. Radiation health, safety, and federal and state requirements will be enforced.
3 lectures, 3 credits

RTT-150 Principles of Diagnostic
Radiation Physics is a continuation of the exploration of radiation physics. Emphasis will be on basic principles of physics, atomic structure, electro-magnetic and particulate radiation, x-ray circuits, radiographic tubes and radiation production. 3 lectures, 3 credits

RTT-200 Survey of Diseases orients students to disease and disorders that compromise the human body. Emphasis is on cellular, systemic and manifestations. There will be an emphasis on the management of pathologies as well.
3 lectures, 3 credits
Prerequisites: RTT-120

## RTT-210 Dosimetry and

 Treatment Practices applies the concepts of radiation physics to therapy practice. Treatment units, scatter radiation analysis, isodose curves, patient contouring, dosimetric calculations, compensating filtration and equipment calibration are introduced.3 lectures, 3 credits
Prerequisites: RTT-110, RTT-150 Corequisite: RTT-230,

## RTT-220 Radiation Therapy

Practices II is an exploration of cancer; its detection, diagnosis, correlation and prognosis. The focus of the course is on the management of neoplastic disease and its mechanism of spreading. Various laboratory experiments will be used to demonstrate the role of radiation therapy in the treatment of cancer. 3 lectures, 3 labs, 4 credits
Prerequisite: RTT-120
Corequisites: RTT-210, RTT-230

## RTT-221 Radiation Therapy

 Clinical Practicum II affords student radiation therapists an avenue to continue their development of professional skills through rotations on various treatment machines, treatment planning, and simulation. Objectives and treatment competencies will be used to assess outcomes. Students will be given 352 hours for this clinical experience. 2 credits, 352 hoursPrerequisite: RTT-121

RTT-222 Radiation Therapy Clinical Practicum III affords student radiation therapists with an avenue to continue the development of advanced professional clinical skills through the correlation of didactic theory. Students continue towards competency and mastery and will be gven 360 hours of clinical experience. 2 credits, 360 hours
Prerequisites: RTT-121, RTT-221
RTT-230 Advanced Procedures explores advanced practices that the student will incorporate into their basic foundation of knowledge. Cross-sectional anatomy will be presented through didactic presentation. Quality control parameters for therapeutic and simulation equipment will be presented through a synchronous dydactic and laboratory presentation. There will be an introduction to computing, information processing, computer concepts and various laboratory experiments. 1 lecture, 2 labs, 2 credits Prerequisite: RTT-120, RT-150 Corequisite: RTT-210

## 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 covered include the family, education, deviance, race and ethnicity, gender roles, social change, and social inequalities. 3 lectures, 3 credits
JGeneral 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, role-playing, and field trips, students learn to recognize the common aspects of helping within the broad field of human services. 3 lectures, 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 pattems. Family life is viewed 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 lectures, 3 credits
JGeneral 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 renewal. Field trips to major urban centers are an integral part of the course. 3 lectures, 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 toward 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 lectures, 3 credits
SOC-113 Social Problems is the 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 detemine the origin of social problems, and to critically assess proposed solutions to these perceived problems. Topics of discussion can include: crime and delinquency, poverty, family violence, overpopulation, war, AIDS, sexual assault, mental illness, racism, sexism, and classism (social inequality). 3 lectures, 3 credits

## SOC-115 Introduction to

Substance Abuse presents an introductory systems-oriented approach to addressing alcohol and other drug problems. Providing an overview of chemical dependency and addiction services, the course examines causal theories, models, and definitions. In addition, intervention and prevention strategies, as well as public policy issues will be explored. Special attention will be given to the family systems perspective in theory, research, and treatment.
3 lectures, 3 credits

## SOC-116 Substance Abuse

Counseling is an introduction to the field of substance abuse counseling, and examines the impact of substance abuse on individuals, families and society. Specific techniques for counseling the alcoholic and the problem drinker are presented. Additionally this course will address the etiology of substance abuse, intervention tactics, and primary/relapse prevention strategies will be discussed. Special attention will be given to substance abuse problems in diverse populations. 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 covered 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 lectures, 3 credits
JGeneral Education Course
\}Diversity Course

## SOC-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 work force, women as portrayed in literature, the impact of religious beliefs on women, women's changing family roles, and traditional and present-day feminism.
3 lectures, 3 credits JGeneral Education Course \}Diversity 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 Jewish Americans. Topics taught 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 lectures, 3 credits Prerequisite: SOC-101 JGeneral Education Course §Diversity Course
## SOC-461-463 Co-op Work

 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 college approved work environment. Students are supervised by a faculty member, and job placement assistance is available through the Co-op office.SOC-461 1 lecture, plus 60 minimum hours work experience distributed over the semester, 1 credit SOC-462 1 lecture, plus 120 minimum hours work experience distributed over the semester, 2 credits SOC-463 1 lecture, plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: SOC-101 or by permission of the Department Head.

## SPE - SPEECH <br> 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 lectures, 3 credits (non-degree credits) Prerequisite: CELT placement Corequisites: 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 lectures, 3 credits (non-degree credits) Prerequisite: CELT placement Corequisites: ALP-051, ALP-052, ALP-053, and ALP-054SPE-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 lectures, 3 credits (non-degree credits) Prerequisite: CELT placement Corequisites: 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 lectures, 3 credits (non-degree credits)

## SPE-006 American Language

Pronunciation is a course designed to help the nonnative 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 hours, 1 credit (non-degree credit)

## SPE-009 American 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 various speech situations. Intrapersonal and interpersonal communication in conjunction with public address are studied. 3 lectures, 3 credits
\}General 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 lectures, 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 leam how to communicate effectively with one another across cultural boundaries. 3 lectures, 3 credits

## 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 communication in dyadic and small group situations. The following topics are examined with respect to their effects on interpersonal communication: selfawareness, shyness and assertiveness, listening, attraction, conflict, Ioneliness, and love.3 lectures, 3 credits

## SPE-119 Business and

Professional Speaking teaches theories and practices of effective communication in the context of business settings: interpersonal, interviews, group and public speaking. 3 lectures, 3 credits

## 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 lectures, 3 credits

## SPE-213 Small Group Discussion is

 an introduction to the various discussion forms. Major 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 toward a specific goal.3 hours, 3 credits
Prerequisite: SPE-111

## SUR - SURGICAL 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 return demonstrations of performance skills.
5 lectures, 3 labs, 6 credits Corequisites: SUR-102, SUR-103, SUR-104
(Co-requisites SUR-103 and SUR-104 may be waived if student has already taken $\mathrm{BIO}-104$ or $\mathrm{MOA}-140$ prior to entering the program.)

## SUR-102 Surgical Technology

Externship I introduces the student to the operating room environment. Approximately six weeks are spent on campus in a preclinical 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 Corequisites: SUR-101, SUR-103, SUR-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, allowing the student to build a professional vocabulary for working in the operating room. 1 lecture, 1 creditCorequisites: SUR-101, SUR-102, and SUR-104

## 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 lectures, 2 credits Corequisites: SUR-101, SUR-102, SUR-103,

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 lectures, 5 credits
Prerequisites: SUR-101 and SUR102 Corequisite: SUR-202

## SUR-202 Surgical 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 SUR102 Corequisite: SUR-201

## SUR-203 Surgical 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-145 Introduction to Quality Control is designed to give students theoretical background and a working knowledge of Quality Control systems used in various Biotechnology, Pharmaceutical, Personal Care, Food and related industries. The course will include an introduction to the statistical methods used to implement Quality Control goals.
3 lectures, 3 labs, 4 credits

## TEC-150 Quality Control in

 Biotechnology $I$ is designed to familiarize students with the instrumentation and methods commonly used to insure Quality Control in the Biotechnology, Pharmaceutical, Personal Care, Food and related industries. Students will become familiar with the safety standards, documentation methods, instrumentation and regulatory agencies that set the standards. Students will learn to evaluate processes for adherence to industry safety and quality standards and to maintain a laboratory notebook that meets FDA standards. 2 lectures, 3 labs, 3 creditsTEC-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 lectures, 3 labs, 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 lectures, 2 labs, 3 credits

## TEC-191 Introduction to

 Mapping 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 lectures, 2 labs, 3 credits

## TEC-201 Science Laboratory

 Technology I is designed to give students a working knowledge 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 labs, 4 creditsPrerequisite: CHM - 212 or by permission 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 labs, 4 creditsPrerequisites: PHY-186 and TEC-201 or by permission of Department Head.

TEC-THR

## TEC-203 Work Based 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 labs, 1 credit
Prerequisites: TEC-201
Corequisite: TEC-202 or by permission of the Department Head.

## TEC-235 Procedure Writing is

 designed to develop the students' ability to appreciate the significance of documentation in assuring product integrity. The student will learn to write basic procedures that conform to regulatory guidelines and to critique existing documentation for adequacy. The course will consist of taking a process such as the manufacture of a solution, and using Excel to develop the documentation required for product development, manufacture, safety, quality control, and non-conformance. Procedures will be peer evaluated in the laboratory for ease of comprehension and implementation and for adherence to industry safety and quality standards. Student SOPs will be approved and filed in accordance with FDA guidelines.3 lectures, 3 labs, 4 credits
Prerequisite: TEC-145

## TEC-240 Quality Control:

 Microbial Contamination is designed to familiarize students with monitoring methods commonly used to prevent contamination and spoilage in the Biotechnology, Pharmaceutical, Personal Care, Food and related industries. Students will be introduced to the microbial world and become familiar with the biology of the common microbial contaminants. Students will learn the common laboratory procedures used to monitor microbial contamination. Students will learn the documentation methods, the contamination standards, for various devices and preparations and the regulatory agencies that set the standards. Students will learn how to adhere to industry safety and quality standards for microbial contamination and maintain a laboratory environment that meets FDA standards.3 lectures, 3 labs, 4 credits
Prerequisite: TEC-145

## TEC-250 Quality Control in

 Biotechnology II is designed to familiarlize students with the maintenance and operation of the instrumentation commonly used in the Pharmaceutical, Personal Care, Food and related industries according to industry standards of quality control. Students will learn the basic principles and mechanics of the common instruments used to assess quality control, e.g. the pH meter, spectrophotometer, filtration instrumentation, centrifuges, HPLC etc. Students will learn to validate and maintain instrumentation and keep maintenance records. Students will learn to evaluate processes used in the laboratory for adherence to industry safety and quality standards and will maintain records that meet FDA standards. 2 lectures, 3 labs, 3 credits Prerequisite: TEC-150
## 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 lectures, 2 labs, 3 credits Prerequisite: 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, GIS programming with Avenue and Map Objects. Students learn the principles of GIS project management and data documentation.2 lectures, 2 labs, 3 credits
Prerequisite: TEC-190 or by permission of the Department Head.

## 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 theatregoing assignments.
3 lectures, 3 credits
JGeneral Education Course

## 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 lectures, 2 labs, 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 lectures, 3 credits

## THR-113 Movement 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 lectures, 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, makeup, promotion, rehearsal, stage management, and performance. The workshop culminates in a public performance of the project. 4 lectures, 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 credits

THR-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 lecture, 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 lectures, 2 labs, 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 covered include stage management in the theatre, concerts, and television. 1 lecture, 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/CIN-140 Introduction

 to the Cinema is a study of film as an art form. The course is designed to awaken 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 lectures, 2 labs, 3 credits
\}General 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 lectures, 2 labs, 3 credits Prerequisite: THR-110

## THR-215 Directing for the

Stage is designed to instruct students in the fundamentals of direction for the stage. Student directors will learn how to analyze a script, cast, block, and direct a scene that will be presented in a performance for the public. This course explores various directing techniques that emphasize not only the artistic approach but also the practical and technical elements of the theatre. 2 lectures, 2 labs, 3 credits Prerequisites: THR-110 and THR-101

## 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: THR-136

## THR-240/CIN-240 The Classic

Cinema is an in-depth study of the style, philosophy, and significance of selected directors and films.
3 lectures, 3 credits
Prerequisite: THR-140/CIN-140

## THR-464 Co-op Work Experience

(Stage Technology) is a field work course in preproduction, 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 TheatreArts faculty. Credit is based on a predetemined number of hours/weeks worked in an approved theatre shop, or other entertainment facility. Job placement assistance is available through the Co-op office.
1 lecture, plus 240 minimum hours work experience distributed over the semester, 4 credits.
Prerequisite: Permission of the Department Head.

## VAS - VASCULAR <br> TECHNOLOGY

VAS-101 Introduction to Vascular Imaging is designed to introduce the student to fundamental scan-plan relationships for ultrasonic imaging of the vasculature of the human body. The student will learn gross vascular anatomy and corresponding ultrasound scanning views. Patient assessment and common vascular pathologies will be introduced. The student will learn how to perform a limited carotid and venous exam. 1 lecture, 3 labs, 2 credits Corequisites: DMS-101, DMS-102, VAS-102, BIO-109

## VAS-102 Introduction to Vascular Principles and

 Physiology is designed to introduce the student to the field of vascular technology. The student will receive an introduction to vascular terminology, blood flow hemodynamics, vascular Doppler physics, and non-ultrasonic vascular instrumentation.1 lecture, 1 credit
Corequisites: DMS-101, DMS-102, VAS-101

## VAS-201 Cerebrovascular

Ultrasound is an in-depth study of cerebrovascular disease and the ultrasonic evaluation of it. The student will learn how to perform a complete Bmode and Doppler ultrasonic examination using all current industry standards. Transcranial Doppler techniques will also be presented. Pathological development and pathophysiology will be described. This course will also review techniques for patient assessment, obtaining patient histories, evaluating and correlating patient symptoms with diagnostic findings. Surgical and non-surgical corrective techniques will be discussed. The student will be introduced to correlating ultrasound test results with angiography, computed tomography, nuclear medicine vascular procedures and magnetic resonance imaging. 2 lectures, 3 labs, 3 credits Prerequisites: VAS-101 and VAS-102 Corequisites DMS-201, VAS-202, VAS-203, BIO-209

## VAS-202 Arterial Ultrasound pro-

 vides an in-depth study of peripheral arterial disease and non-invasive evaluation of it. The student will leam how to perform B-mode and Doppler evaluation of the upper and lower extremities. The student will also learn how to perform pulsed volume recording, segmental blood pressures and plethysmography. Pathological and pathophysiologic states will be described. The course will review pertinent techniques for patient assessment, obtaining patient histories, evaluating and correlating patient symptoms with diagnostic findings. The student will be introduced to correlating information with other diagnostic procedures. Surgical and non-surgical corrective techniques will be discussed. Techniques for evaluating post interventions or surgical techniques will also be explained.2 lectures, 3 labs, 3 credits
Prerequisites: VAS-101, VAS-102 Corequisites VAS-201, VAS-203, DMS-201, BIO-209

## VAS-203 Vascular Practicum I

requires the student to spend two days a week in an approved hospital vascular laboratory. Students will perform cerebrovascular procedures under the direct supervision of the supervising vascular technologist. Students are given specific learning objectives for the rotation and must meet the established requirements for competency based clinical education. 2 credits, 240 hours Prerequisites: VAS-101, VAS-102 Corequisites VAS-201, VAS-202, DM S-201, BIO-209

## THR-VAS

VAS-204 Vascular Practicum II
requires the student to spend five days a week in an improved hospital vascular department. Students will perform complete arterial procedures under the direct supervision of the supervising vascular technologist. Students are given specific learning objectives for the rotation and must meet the established requirements for competency-based clinical education.
2 credits, 240 hours
Prerequisites: VAS-202, VAS-203

## VAS-210 Abdominal Vascular

 Ultrasound teaches students how to perform duplex exams of the renal, mesenteric, aorta and iliac arteries as well as the inferior vena cava, iliac, hepatic and portal veins. The student will identify risk factors and describe pathogenic mechanisms of these vessels. Surgical and interventional techniques will be discussed. Post-interventional ultrasonic evaluation of these procedures will also be discussed and demonstrated. Correlation with other diagnostic procedures will be demonstrated. 2 lectures, 3 labs, 3 credits Prerequisites: DMS-201, VAS-204 Corequisites VAS-211, VAS-212, DMS-115, DMS-214VAS-211 Venous Ultrasound provides the student with an in-depth study of the evaluation of peripheral venous disease using duplex ultrasound and plethysmographic techniques. The student will leam to evaluate for venous thrombosis and insufficiency. Superficial venous mapping will be demonstrated. The student will review techniques for evaluating the presence of venous disease. The student will leam pathological mechanisms and risk factors for venous disease. Surgical and non-surgical corrective procedures will be discussed. Correlation with other vascular procedures will be demonstrated.
1 lecture, 3 labs, 2 credits Prerequisites: DM S-201, VAS-204 Corequisites: DMS-115, DM S-214, VAS-210, VAS-212

VAS-VET

VAS-212 Vascular Practicum III requires the student to spend two days a week in an approved vascular laboratory. Students will perform a complete venous evaluation and a limited abdomen under the direct supervision of the supervising vascular technologist. Students are given specific learning objectives for the rotation and must meet the established requirements for competencybased clinical education.
2 credits, 240 hours
Prerequisites: DM S-201, VAS-203 Corequisites: DMS-115, DMS-214, VAS-210, VAS-211

## VAS-220 Advanced Vascular

 Topics and Techniques exposes the student to less frequently performed vascular testing such as Hemodialysis graft evaluations, renal allograft evaluations, penile evaluation and advances in graft and stent technology. The most current topics for surgical and medical treatments for vascular disease will be discussed. Lab accreditation philosophy and standards will be presented. Current topics in vascular physical principles will also be reviewed. 2 lectures, 2 creditsPrerequisites: DM S-115, DM S-214, VAS-211, VAS-212 Corequisites: DMS-227, VAS-221, VAS-222

## VAS-221 Cardiovascular

 Pharmacology is designed to review common laboratory tests used in the diagnosis of cardiovascular disease as well as introduce the student to medications used in the treatment and diagnosis of cardiovascular disorders. Contrast agents used in ultrasound and other imaging modalities will also be discussed. 1 lecture, 1 creditPrerequisites: DMS-115, DMS-214, VAS-210
Corequisites: DMS-227, VAS-220, VAS-222

VAS-222 Vascular Practicum IV requires the student to spend two days a week in an approved hospital Ultrasound department. Students will perform a complete echocardiography procedure under the direct supervision of the supervising sonographer. Students are given specific learning objectives for the rotation and must meet the established requirements for competency-based clinical education. 2 credits, 240 hours
Prerequisites: DMS-115, DMS-214, VAS-210, VAS-212 Corequisites: DMS-227,VAS-220, VAS-221

VAS-223 Vascular Practicum V requires the student to spend 40 hours a week for five weeks performing vascular procedures in an approved vascular laboratory. The main objectives of this practicum will be for the student to demonstrate clinical competency in all aspects in the field of vascular sonography. A minimum of three procedures will be performed independently by the student in establishing clinical competency.
1 credit, 200 hours
Prerequisites: DMS-227, VAS-220, VAS-222

## VET - VETERINARY 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 veterinary 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 lecture, 1 credit
Corequisite: VET-103

## VET-103 Veterinary Medical

 Terminology introduces the student to prefixes, suffixes, and word roots used in the language of veterinary medicine. Topics presented 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 lecture, 1 credit
Corequisite: 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 lectures, 3 labs, 3 credits Prerequisites: 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. Materials cover the six classes of nutrients (water, 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 concern will be the dietary management of specific diseases that affect domestic animals. 2 lectures, 2 creditsPrerequisites: 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 lectures, 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 lectures, 3 labs, 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 lectures, 3 labs, 3 credits
Prerequisites: VET-102, VET-103, BIO-115, 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 diagnostic 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 lectures, 3 labs, 3 credits Prerequisites: VET-102, VET-103, BIO-115, BIO-215

VET-214 Veterinary Nursing II is a continuation of Veterinary Nursing I. Principles of emergency care, intensive care, administration of drugs and fluids, shock therapy, oxygen therapy and the application of indwelling catheters will be discussed. This course will include a general study of diseases, their definition, etiology, pathogenesis, clinical signs, diagnosis, prevention, and treatment. Intensive care nursing will include hands on experience with animals and models.
2 lectures, 3 labs, 3 credits
Prerequisite: VET-203

## VET-216 Veterinary Office

Management 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. An emphasis on professional ethics is presented. 3 lectures, 3 credits
Prerequisites: VET-102 and VET-103

## VET-217 Clinical 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 lectures, 3 labs, 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 lectures, 3 labs, 3 credits Prerequisites: VET-214 or permission of the program coordinator (Offered in the summer)

## 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 lectures, 3 labs, 3 credits
Prerequisite: VET-203

## VET-220 Veterinary Technology

Externship I is a clinical experience providing the student with the opportunity to refine technical skills developed in areas such as animal handling, nursing care and treatment, surgical assistance, radiology, anesthesia, dental prophylaxis, diagnostic laboratory procedures, practice management, and client communication. Students spend 12 weeks in total in a preapproved 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. 1 credit, 192 hours
( 16 hours/wk x 12 wks = 192 hours) Prerequisites: Permission from the program coordinator

## VET-221 Veterinary Technology

Externship II is a clinical experience providing the student with the opportunity to refine technical skills developed in Externship I. Students spend 12 weeks in total 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.
Veterinary Technology Externship II is the second half of the student's clinical experience.
1 credit, 192 hours
(16 hours/wk x 12 wks = 192 hours) Prerequisites: Permission from the program coordinator

## VET-290 Applied Transgenics and

 Microinjection Techniques is a Laboratory Science course focusing on intense hands-on laboratory procedures for real world experience. It is intended for people who want to become employed as microinjectionists, but is open to all people who have an interest in Genomics. The morality and ethics of utilizing animals in research and the application of transgenic techniques will be discussed along with hands-on training on state of the art microinjection equipment used in the industry. Course topics include mouse colony management; embryo development; sanitation/sterilization of transgenic facilities, animal cages, and microinjection work areas; microscopy; effects of mouse micro and macro environments and disease; reproductive systems; surgical instrumentation and procedures for collection of mouse ova; pronuclear microinjection and the implantation of injected eggs into pseudopregnant mice.1 lecture, 4 labs, 3 credits

## 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 lectures, 1 lab, 2 credits JGeneral Education Course

WEX-104 Aquacise is an opportunity for the student to increase fitness through selected aquatic activities such as in-the-water stretching, running, and calisthenics movements. A comfortable exercise program will be adapted to each person's tolerance level. No swimming ability is required. 2 labs, 1 credit

WEX-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. All equipment in the Fitness Center is employed to develop and maintain these individualized fitness programs.
2 labs, 1 credit

## WEX-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 lectures, 3 credits

## WEX-125 Introduction to

Recreation is a historical and philosophical study of leisure and recreation and of the agencies and institutions that serve the recreational needs of society. 3 lectures, 3 credits

WEX-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 lectures, 3 credits

## WEX-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 lectures, 3 credits

WEX-159 Cardiopulmonary 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 lectures, 3 credits
WEX-163 Nutrition Today is an investigation of basic nutrition concepts. Current studies and findings are explored and evaluated. Information is used to formulate practices that maximize health benefits.
3 lectures, 3 credits
WEX-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, WEX-183 and WEX-184. Requirement for Exercise Science Certificate and Degree.
3 lectures, 1 lab, 3 credits
WEX-167 Self-Defense is a course that provides the opportunity to learn basic techniques in judo, karate, and jujitsu. (Yellow belt promotion is optional.)
2 labs, 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 labs, 1 credit

## WEX-172 Intermediate Golf

is designed to further acquaint the student with the game of golf beyond the beginner level, reviewing fundamental skills and developing shotmaking strategies.
2 contact hours, 1 credit Prerequisite: Some previous golf experience recommended either from having played the game or taking golf lessons.

WEX-173 Beginner Tennis is a course that 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 labs, 1 credit

## WEX-WRT

WEX-174 Volleyball is a course that provides fundamental skills, strategies, and knowledge of power volleyball through teaching-learning experiences and active participation. 2 labs, 1 credit

## WEX-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, breaststroke, sidestroke, and recreational aquatic activities.2 labs, 1 credit

## WEX-182 Fitness Measurement

 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 lectures, 3 creditsWEX-183 Programs and Principles of Conditioning is an application of theories explored in Exercise Science (WEX-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 lectures, 3 credits
Prerequisites: WEX-164 and WEX-182

## WEX-184 Sports Medicine I

 Theory and 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 lectures, 3 credits

## WEX-201 Aerobic Conditioning

 (Dynamics of Health and Fitness Experience) is an application of the theories explored in WEX-101. The course is designed to provide students with opportunities to improve cardiovascular health, muscle endurance, flexibility and stress reduction. Different modes of aerobic training will be used which may include movement to music.2 labs, 1 credit
Prerequisite: WEX-101
JGeneral Education Course

## WEX-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 cardiorespiratory 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 labs, 1 credit
Prerequisite: WEX-101
\}General Education Course

## WEX-204 Keep Young, Fit and

 Alive (Dynamics of Health and Fitness Experience) is an application of the theories explored in WEX-101. The course is designed to emphasize the management of musculoskeletal concerns such as low back and stress reduction. It may include aerobic, flexibility and various resistance modalities. Dietary practices may also be adressed. 2 labs, 1 creditPrerequisite: WEX-101
\}General Education Course

## WEX-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. Students must have good swimming ability.2 labs, 1 credit
Prerequisite: WEX-101
JGeneral Education Course
WEX-206 Weight 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 lifelong participation is emphasized.
2 labs, 1 credit
Prerequisite: WEX-101
\}General Education Course
WEX-208 40+ Fitness (Dynamics
of Health and Fitness Experience) 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 labs, 1 credit
Prerequisite: WEX-101
\}General Education Course

WEX-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 labs, 1 credit
Prerequisite: WEX-173
WEX-230 Skin and Scuba Diving is a course that allows students to develop basic skills in skin and scuba diving by means of lectures, demonstrations, and class practice. Students must have good swimming ability. (International certification is optional.)
2 labs, 1 credit
WEX-260 Exercise Physiology is a course that investigates how the human body responds to exercise. Theory and practical application will draw from musculoskeletal, cardiovas cular, endocrine and neuromuscular considerations.
3 lectures, 3 credits
Prerequisites: WEX-164 and WEX-182

## WEX-262 Senior Fitness Training

$I$ is a course that explores and ana-
lyzes specific criteria for planning and implementing exercise programs for seniors. Specific needs for this age group and program characteristics will be stressed.
3 lectures, 3 credits
Prerequisites: WEX-164, WEX-159, WEX-182 or by permission of the Department Head.

WEX-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 lectures, 3 credits

## WEX-471 Co-op Work

## Experience/Exercise Science

enables the student to gain essential
"hands on" experience in a fitness center under professional guidance and supervision.
1 lecture, plus 60 minimum hours work experience over the semester, 1 credit Prerequisites: WEX-164 and WEX-183

## WRT - WRITING

WRT-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 MLA documentation. 3 lectures, 3 credits
Prerequisite: EBS-017, EBS-024, ALP063, or by placement exam JGeneral Education Course

## WRT-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 MLA documentation.3 lectures, 3 credits
Prerequisite: W RT-101
JGeneral Education Course
WRT-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 lectures, 3 credits Prerequisite : WRT-101
Prerequisite or Corequisite: WRT-201

## WRT-204 Creative Writing 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 lectures, 3 credits
Prerequisite: WRT-101

## WRT-205 Creative Writing

 Workshop in Fiction gives students the opportunity to focus on the elements of fiction writing. Students read and discuss each other's work. 3 lectures, 3 creditsPrerequisite: WRT-101

## Directory

The following pages contain a listing of the College's governing boards, administration, faculty, and advisory committees.

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Sharon Goldstein, Director of Cooperative Education and Career Development; B.A., St. Peter's College; M .A. M ontclair State University
D avid H adaller, A ssistant A cademic Vice President; B.A., Gonzaga University; M .A., Saint Louis University; M .A., Columbia University; Ph.D., Washington State University
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Caroline $\mathbf{O}$ fodile, Director of Financial $O$ perations and Student Assistance; B.A., Barnard College; M .B.A., Columbia University
Edward J. Pittarelli, Director of Technologies; B.S., Long Island University; M .S., Southern M ethodist University
Fred Sahlberg, Director of Public Safety; A.A.S., R ockland Community College; B.S., The William Paterson University of N ew Jersey; M .A., John Jay College of Criminal Justice, The City University of N ew York
N orman Shapiro, Director of the Physical Plant; B.S., B.M .E., The City College of N ew York
William Yakowicz, Director of Grants; B.A., Unity College; M .A., Jersey City State Úniversity; M .A., Ed.D., Teachers College, Columbia University

## Academic Department Heads and Coordinators

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Jacqueline Behn, Coordinator, Social and Behavioral Sciences; Professor; B.A., Fairleigh Dickinson University; M .S.W., Ph.D., Fordham University
Katherine Benz-Campbell, Coordinator, Diagnostic M edical Sonography; Associate Professor; A.A.S., Bergen Community College; R.D.M .S., Ultrasound Institute of John F. K ennedy M edical Center; B.S., Thomas A. Edison State College; M .A., M ontclair State University
Gregg Biermann, Coordinator, Art; Assistant Professor; B.A., State University of New York at Binghamton; M .F.A., The San Francisco Art Institute
Sonia Brown, Coordinator, Educational Opportunity Fund; Associate Professor; B.A., Lincoln University; M .A., N ew York University
Amy Ceconi, Clinical Coordinator, Respiratory Therapy Technology; Assistant Professor; A.A.S., Westchester Community College; B.A., Pace University; M .A., Seton H all University
Carol A. Chovanec, Coordinator, Radiation Technology Therapy Program; Assistant Professor; B.A., Drew University; M .S., College of Saint Elizabeth
George Cronk, Coordinator, Philosophy and Religion; Professor; B.A., The William Paterson University of N ew Jersey; M .A., J.D., Rutgers, The State University of N ew Jersey; Ph.D., Southern Illinois University
Philip C. D olce, H ead, Social Sciences D ept.; Professor; B.A., St. John's University; M .A., Ph.D., Fordham University
Ruth Feigenbaum, Coordinator, M ath Basic Skills; Professor; B.A., Douglas College; M.S., Fairleigh Dickinson University; M .A., Columbia University; Ph.D., University of South Carolina
Randolph H. Forsstrom, Coordinator, Computer Science; Professor; B.S., Fairleigh Dickinson University; M.S., Purdue University; M.S., Rutgers, The State University of N ew Jersey; M .B.A., M . Phil.., Ph.D., N ew York University
Paul J. Griffo, Coordinator, Physical Sciences; A ssistant Professor; B.S., M .S., Fairleigh Dickinson University

Joshua Guttman, H ead, Science and Technology Dept.; A ssistant Professor; B.A., Columbia University; M .S., University of Chicago
Robert Highley, Coordinator, Biological Sciences; A ssociate
Professor; A.A., O cean County Community College; B.S., M .S., M ontclair State University
Laurie H odge, H ead, Arts and Communications Dept. Professor; A.A., College of Virgin Islands; B.S., M .A., N ew York University; M.A., The N ew School for Social Research

Compton Jenkins, H ead, Wellness and Exercise Science Dept.; B.S., Springfield College; M .A., Trenton State College

M agali R. Jerez, Coordinator, World Languages and Cultures; A ssociate Professor; B.A., University of Puerto Rico; M .A., M ontclair State University
William Jiang, Coordinator, American Language Program; Professor; B.A., Shanghai University; M .S., Ed.D., State University of N ew York at Albany
Lawrence Joel, Coordinator, Paralegal Studies/Legal N urse
Consultant; Assistant Professor; B.A., Boston College; J.D., Catholic University of America
M atthew King, Coordinator, Industrial and Design Technologies; Associate Professor; B.S., State University of N ew York at O swego; M .A., Ball State University
Pierre Laguerre, Coordinator, A ccounting/Business Administration; Instructor; B.S., Ramapo College; M .B.A., St. Thomas Aquinas College
William Leonard, Coordinator, R adiography; Associate Professor; Diploma, Saint Joseph's School of Radiologic Technology; A.A., Tom Brock College; B.A., William Paterson University; M .A., M ontclair State University; P.S.E.S., Rutgers, The State University of N ew Jersey
Joseph M amatz, H ead, Allied H ealth Dept., Coordinator, Radiography - Clinical; Instructor; A.A.S., Bergen Community College; B.S., M .A. Ed., Saint Peter's C ollege
Florence M cG overn, H ead, Business Dept.; Professor; B.B.A., Pace University; M .B.A., Fairleigh Dickinson University
C arol M iele, H ead, English Dept.; Professor; B.A., Barnard College; M .A., M iddlebury College; M .A.T., Fairleigh Dickinson University; Ed.D., Teachers College, C olumbia University
R obert M uller, Coordinator, Respiratory Therapy; Professor; B.S., Long Island University; M .A., M ontclair State University
M ichael Orlando, Coordinator, English Basic Skills/AIM S; Professor; B.A., University of M issouri; M .A., State University of $N$ ew York at Stony Brook
Lou Ethel Roliston, Coordinator, English Composition and Literature; A ssistant Professor; B.B.A., Baruch College, The City University of N ew York; M .A., N ew York University; M .A., Rutgers, The State University of N ew Jersey
Elin Schikler, Coordinator, Communication Arts; A ssociate Professor; B.A., H unter College; M .A., H erbert H . Lehman College, The City University of N ew York
C arolan M. Sherman, Coordinator, Surgical Technology; Lecturer; B.S.N., UM DN J/Ramapo College

Sandra Silverberg, H ead, M athematics and Computer Science Dept.; Professor; B.A., Syracuse University; M .A., N ew York University; Certificat d'Etudes, Doctorat du 3e cycle, Faculte es Lettres, Poitiers, France
H arriet Terodemos, Coordinator, Veterinary Technology; A ssociate Instructor; B.S., Purdue University
Arthur Tolve, Coordinator, H otel/R estaurant M anagement; A ssociate Professor; B.S., Pratt Institute; M .A., N ew York University; M .A.Ed., St. Peter's College
Steven W. Toth, Coordinator, M edical Office A ssistant; Associate Instructor; B.S., West Virginia Wesleyan College; M edical Assisting, H oH oK us School
John Valente, Clinical Coordinator, R adiation Therapy Technology; A.A.S., N assau Community College

Anita Verno, Coordinator, Information Technology; Assistant Professor; B.A., University of Rochester; M .S., Fairleigh Dickinson University

Linda Yurkin, Coordinator, Diagnostic M edical Sonography -Clinical; A.A.S., Bergen Community College; R.D.M.S.; R.D.C.S.; R.V.T.

## Faculty

## Professors Emeriti

*Alan Buxton, Professor Emeritus 1988. Division of Business Administration 1968-1986. B.A., City College of N ew York; J.D., St. John's University; M .A., Ed.D., N ew York University
*Jack C respin, Professor Emeritus 1989. Division of Business Administration 1969-1986. B.S., M .A., Ph.D., N ew York University
*Paul Karish, Professor Emeritus 1990. Division of Social Sciences 1968-1978. B.A., A delphi College; M .A., Columbia University
Estelle M eislich, Professor Emeritus 1990. Division of N atural Sciences and M athematics 1971-1989. B.S., Brooklyn College, The City University of N ew York; Ph.D., Columbia University
H orace W. Chandler, Professor Emeritus 1991. Division of N atural Sciences and M athematics 1968-1990. B.Ch.E., Cornell University; M .Ch.E., N ew York University; D.E.Sci., Columbia University
*Joseph W. Ferioli, Professor Emeritus 1991. Division of Business Administration 1972-1990. B.S., N ew York University; M.B.A., Fairleigh Dickinson University; Ed.D., N ew York University; Certified $M$ anagement A ccountant
Rose M. Battaglia, Professor Emeritus 1992. Division of Allied Health and Physical Education 1969-1984. B.S., Panzer College; M .S., M ontclair State University; Ph.D., University of Utah
*Seymour N. Lewis, Professor Emeritus 1992. Division of N atural Sciences and M athematics 1969-1989. B.A., M .S., University of Wisconsin; M .A., Ph.D., Columbia University
*Trudy Drucker, Professor Emeritus 1993. Division of H umanities 1968-1989. B.A., N ew York University; M .A., Fairleigh Dickinson University; Ph.D., N ew York University
Angela Rees, Professor Emeritus 1993. Division of Allied Health and Physical Education 1969-1990. R.N ., Agnes School of N ursing; B.S., M arian College; M .S., St. Louis University
Carl D. Prota, Professor Emeritus 1994. Division of N atural Sciences and M athematics 1968-1993. B.A. Loyola College; M .S., Ph.D., Fordham University
*Tirzah G. Schutzengel, Professor Emeritus 1994. Division of Social Sciences and Communication Arts 1970-1993. B.A., Bank Street College; M .A., Ed.D., Clark University
Sarah Thomson, Professor Emeritus 1997. Sidney Silverman Library 1967-1996. B.A., A gnes Scott College; M .S., D.L.S., Columbia University
Mia Anderson, Professor Emeritus 1998. Division of Arts and Humanities 1973-1998. B.A., Southern Illinois University; M .A., Ph.D., University of Illinois
Richard Lenk, Professor Emeritus 1998. Division of Business, M athematics, and Social Sciences 1969-1998. B.A., Fairleigh Dickinson University; Ph.D., N ew York University
Dona Singer, Professor Emeritus 1998. The Sidney Silverman Library 1968-1996. B.A ., Syracuse University; M .L.S., University of M ichigan; M .A., Seton H all University
Elizabeth Wilson, Professor Emeritus 1999. Division of Science and $H$ ealth 1972-1998. Diploma, M ountainside H ospital School of N ursing; B.S., Upsala College; M .A., M ontclair State University; Ed.D., Rutgers, The State University of N ew Jersey
Verla Witt, Professor Emeritus 1999. Division of Science and H ealth 1972-1998. B.S., Slippery Rock State College; M .Ed., State University of N ew York at Buffalo; Ed.D., Teachers College, Columbia University
Judith Friedman, Professor Emeritus 2000. Division of Arts and Humanities 1969-1999. B.A., Emerson College; M .A., Columbia University

John LoR usso, Professor Emeritus 2000. Division of Science and H ealth 1972-1999. B.S. Fairleigh Dickinson University; M .A., M ontclair State University; P.S.C.S., R utgers, The State University of N ew Jersey
*R. Neil Ender, Professor Emeritus 2001. Division of Business, M athematics, and Social Sciences 1968-2000. B.S., M anhattan College; M .A., N ew York University; M .S., Stevens Institute of Technology
Elizabeth Koster, Professor Emeritus 2001. Division of Science and H ealth 1968-2000. B.S., Seton H all University; M .A., M ontclair State University; M .Ed., Teachers C ollege, Columbia University
Lois A. Sullivan, Professor Emeritus 2001. Division of Business Technologies 1968-1990. Division of Arts and H umanities 19912001; B.A., M ontclair State University; M .A., Columbia University
Bernard Casella, Professor Emeritus 2002. Division of Business,
M athematics, \& Social Sciences, 1968-2001. B.A. H unter College, The City University of N ew York; M.S., Columbia University; Ed.D., Teachers College, Columbia University; Fellowship Certificate, Postgraduate C enter for M ental H ealth
*Ann C unningham, Professor Emeritus 2002. Division of Arts and H umanities, 1974-2001. B.S., M .S., Fordham University
John Sullivan, Professor Emeritus 2002. Division of Business, M athematics, \& Social Sciences, 1976-2001. B.S., M .B.A., Fairleigh Dickinson University
Alfred M cD owell, Professor Emeritus 2003. Division of Arts and Humanities, 1972 -2002. A.B., Colgate University; M .A.T., H arvard University; M .A., Ph.D., Bowling Green State University
George Skau, Professor Emeritus 2003. Division of Business, M athematics, and Social Sciences 1970-2002. B.S., M anhattan College; M .A., N iagara University; Ph.D., St.J ohn's University
*Paul M arshall, Professor Emeritus 2003. Division of Arts and Humanities, 1968-1998. B.A., B.S., M.A., Ohio State University
Frederick R. Prisco, Professor Emeritus 2004. Division of Business, M athematics, and Social Sciences 1967-2002. B.S., St. Peter's College; M .A., M ontclair State University; Ed.D., Rutgers,The State University of N ew Jersey
Joann G lasgow, Professor Emerita 2006, Division of Arts and H umanities 1975 - 2006; B.A., C ollege of N ew R ochelle; M.S., State University of N ew York at Plattsburgh; Ph.D., Fordham University
Virginia L. Laughlin, Professor Emerita 2006, Executive Vice President 1968-2006; B.A., H unter College, City University of N ew York; M.A., Teachers College, Columbia University; Professional Diploma, Columbia University
*denotes deceased

## Division of Arts and Humanities

April D. Adams, A ssociate Professor; B.A., H erbert H. Lehman College, The City University of N ew York; M .A., N ew York University; M .A., H unter College, The City University of N ew York
Brian Altano, Professor; B.A., M .A., M .Phil., Columbia University
D orothy Jewell Altman, Associate Professor; B.A., The State University of N ew York at Albany; M.A., H unter College, The City University of N ew York; Ph.D., The State University of N ew York at Albany
M ark Altschuler, A ssociate Professor; B.A., Albright C ollege; M .A.T., Brown University; M .A., University of Connecticut
C arlo Annese, Professor; B.A., M .A., Jersey City State University; Ed.D., Rutgers, The State University of N ew Jersey
Andrew Baddish, Assistant Professor; B.A., Long Island University; M .A., N ew School for Social Research
Stacey Balkan, Instructor; B.A., M .A., M ontclair State University

Gregg Biermann, Assistant Professor; B.A., State University of $N$ ew York at Binghamton, M .F.A., The San Francisco Art Institute
M ichael Bodek, A ssistant Professor; B.A., M .S., Ramapo College; M .A., M ontclair State University
Suzaan Boettger, Assistant Professor; B.A., San Francisco State University; M .A., University of California, Berkeley; Ph.D., Graduate Center, City University of New York.
Ken Bonnaffons, Professor; B.A., M .A., M .F.A., Louisiana State University, N ew Orleans
Charles Bordogna, A ssociate Professor; B.A., St. Peter's College; M .A., Seton H all University
Vanda Bozicevic, A ssistant Professor; B.A., M .A., Ph.D., University of Zagreb (Croatia)
M ilena V. C hristov, A ssistant Professor; B.A., M .A., University of Sofia, Bulgaria; M.A., H unter College, The City University of N ew York
John C olaccio, A ssociate Professor; B.A., City College of N ew York; M .A., Ph.D., N ew York University
M ary C lifford, A ssociate Professor; B.A., M arywood University; M .F.A., Brandeis University
Amparo G. C odding, Professor; B.A., Universidad de Los Andes; M .S., M .A., University of Kentucky
George Cronk, Professor; B.A., The William Paterson University of N ew Jersey; M .A, J.D., Rutgers, The State University of N ew Jersey; Ph.D., Southern Illinois University
Jessica Datema, A ssistant Professor; B.A., W heaton C ollege; M .A ., N orthern Illinois University; PhD., Binghamton University
Judith Rae Davis, Professor; B.A. St. M ary's College; M .A., William Paterson University; M .Ed., Ed.D., Teachers College, Columbia University
Beverly De C otiis, Professor; B.A., College of N ew R ochelle; M .A., M ontclair State University
Karen Del Colle, Assistant Professor; B.A., Rutgers, The State University of New Jersey; M .A.T., School for International Training, Brattleboro, Vermont
Tobyn De M arco, A ssistant Professor; B.A., R utgers, The State University of N ew Jersey; M.A., N ew York University
Kaye DeM etz, Assistant Professor; B.A., Louisiana State
University; M .A., University of N ew Orleans; Ph.D., Florida State University
Peter Dlugos, Professor; B.A., Rutgers, The State University of N ew Jersey; M .A., Ph.D., The University of Virginia
M ichael F. Echols, A ssistant Professor; B.A., K ean University; M .S. Indiana State University
Gail Fernandez, Instructor; B.S., Union College; M .A., University of Pennsylvania
Robert Freud, Associate Professor; B.A., The State University of N ew York at Stony Brook; M .A., State University of N ew York at Fredonia
M arilyn Gilroy, Professor; B.S., Indiana University of Pennsylvania; M .L.S., University of Pittsburgh; M .A., William Paterson University
Fariba H ajamadi, A ssistant Professor; B.A., Western M ichigan University; M .F.A., California Institute of the Arts
Janet H enderson, Professor; B.S., M .A., Western Illinois
University; M.S., Illinois State University; Ed.D., Rutgers, The State University of N ew Jersey
Laurie H odge, Professor; A .A., C ollege of Virgin Islands; B.S., M .A., N ew York University; M .A., TheN ew School for Social Research
Douglas H oehn, A ssistant Professor; B.A ., D akota Wesleyan; M .A., University of M aryland; Ph.D., N ew York University

M agali R. Jerez, A ssociate Professor; B.A., University of Puerto Rico; M .A., M ontclair State University
Thomas E. Jewell, A ssociate Professor; A.A., Highline Community College; B.A., M .A., Brigham Young University; J.D., J. Ruben Clark Law School, Brigham Young University
William Jiang, Professor; B.A., Shanghai University; M .S., Ed.D., State University of New York at A lbany
Leigh A. Jonaitis, A ssistant Professor; B.A., B.F.A., University of M ichigan, Ann Arbor; M .A., Ed.M ., Teachers College, Columbia University Teachers College
H arold Kahn, Assistant Professor; B.A., Columbia University; B.F.A., M.S.Ed., Queens College, The City University of N ew York; M .F.A., The State University of N ew York at Albany
M aria Kasparova, A ssistant Professor; M .A., N ew York University; M .A., M oscow State University
M arshall Katzman, Professor; B.A., M .A., University of M ichigan
Alan Kaufman, Professor; B.A., M .A., College of Staten Island, The City University of N ew York; Ph.D., Indiana University
Kelly Keane, Assistant Professor; B.A., State University of $N$ ew York at Binghamton; M .A., Teachers College, Columbia University
F. David Kievitt, Professor; B.A., Seton H all University; M .A., Ph.D., Columbia University
Isabel Kimmel, Professor; B.A., College of N ew Rochelle; M .L.S., Columbia University; M .Ed., Ed.D., Teachers College, Columbia University
Andy Krikun, Assistant Professor; B.A., H unter College, The City University of N ew York; M.A., The University of California - Los Angeles
Diane Krumrey, A ssistant Professor; B.A., University of Illinois; M .A., University of Connecticut; PhD., U'niversity of Connecticut
Susanna L ansangan, Assistant Professor; B.A., University of the Philippines; M .A., University of Calgary
Laurie Lieberman, Assistant Professor; B.A., M .A., N ew York University
M argarita Lopez-Bernstein, A ssociate Professor; B.A., St. Thomas Aquinas College; M .A., Fairleigh Dickinson University
Bonnie M acD ougall, Professor; B.A., Cedar Crest College; M .A ., M . Phil., Ph.D., Columbia University
M aria H anna M akowiecka, A ssociate Professor; Diploma des Etudes Approfondies, Paris University; M .A., Warsaw University; Ph.D., Graduate Center, The City University of N ew York
Linda M arcel, Professor; B.M us., Brigham Young University; M .Ed., State University of N ew York at Potsdam; Ed.D., Teachers College, Columbia University
Sarah M arkgraf, A ssociate Professor; B.A., A mherst College; M .A., M .Phil., Ph.D., Columbia University
Lenore M arrocco, Assistant Professor; B.A., Dunbarton College; M .A.T., Fairleigh Dickinson University
Elizabeth M arsh, A ssociate Professor; B.A., M .A., M ontclair State University
Kathryn M cG rath, Instructor; B.A., Indiana University; M .A. N ortheastern University
C arol M iele, Professor; B.A., Barnard College; M .A., M iddlebury College; M .A.T., Fairleigh Dickinson University; Ed.D., Teachers College, Columbia University
Paul M indell, Associate Professor; B.F.A., University of M ichigan; M .A.T., R hode Island School of Design
Edward M urtha, Associate Professor; B.A., City College of N ew York; M .A., M ontclair State University; M .A., Jersey City State University
Jennifer N ader, Assistant Professor; B.A., Saint Thomas A quinas; M .A, Stony Brook University

Michael $O$ rlando, Professor; B.A., University of M issouri; M .A., State University of N ew York at Stony Brook
Ann M arie Prendergast, A ssociate Professor; B.A ., R amapo College; M .A., N orth Carolina State University
Tiziana Quattrone, A ssistant Professor; B.A., M .A., Instituto Universitario Orientale; M .A., Fairleigh Dickinson University
M ichael D. Redmond, Professor; B.A., N ortheastern Bible College; M .A., Rutgers, The State University of $N$ ew Jersey; Ph.D., Drew University
Donald Reilly, A ssistant Professor; B.A., City College of $N$ ew York; M .A., University College of Dublin
Linda R obins, Professor; B.A., Barnard College, Columbia University; M.A., M iddlebury G raduate School in France; M .Phil., N ew York University; M .A., M ontclair State University
Lou Ethel Roliston, Associate Professor; B.B.A., Baruch College,
The City University of N ew York; M .A., N ew York University; M .A., Rutgers, The State University of N ew Jersey
Geoffrey Sadock, Professor; B.A., Brooklyn College, The City University of New York; M .A., Tufts University; Ph.D., Brown University
Jared Saltzman, A ssociate Professor; B.A., Pace University; M .A., N ew York University
Elin Schikler, Associate Professor; B.A., H unter College; M .A., Herbert H. Lehman College, The City University of N ew York
Francis Schmidt, A ssistant Professor; B.A., State University of N ew York at Binghamton; M .F.A., The School of the Art Institute of Chicago
Beth Snyder, A ssistant Professor; B.A., K alamazoo College; M .A., University of M ichigan
Dennis Testa, A ssistant Professor; B.A., Jersey City State
University; M .A., M ontclair State University
Andrew Tomko, Professor; B.A., State University of N ew York at Albany; M .Phil., Ph.D., Graduate Center, The City University of N ew York
Jon Abdullah Yasin, Professor; B.A., C alifornia State University at H ayward; M .P.A., H arvard University; M .Ed., N ortheastern University; C.A.G.S., Boston College; Ph.D., Indiana University of Pennsylvania; Ed.D., Columbia University
M ary Yepez, Assistant Professor; B.A., City College of N ew York; M .A., Ph.D., N ew York University
James Z orn, A ssistant Professor; B.A., University of Georgia; M .A., The School for International Training; M .A., N ew School for Social Research

## Division of Business, Mathematics, \& Social Sciences

Roanne Angiello, Professor; B.A., College of St. Rose; M .S.A., George Washington University; Ed.D., Seton H all University
M ostapha H. Baligh, A ssociate Professor; B.A., M .A ., Oxford University, England
Jacqueline Behn, Professor; B.A., Fairleigh Dickinson University; M.S.W., Ph.D., Fordham University

Sidney R. Birnback, Professor; B.A., City College of N ew York; M .S., Long Island University; Ph.D., N ew York University
N orman Burns, A ssociate Professor; B.S., M .B.A., Fairleigh Dickinson University
Lucy C aruso-Deane, Professor; A.S., Passaic County Community College; B.A., Rutgers, The State University of N ew Jersey; M.B.A., Fairleigh D ickinson University; M .A.T., M ontclair State University
Daniel Chadwick, Associate Professor; B.S., West Virginia Wesleyan College; M .P.S., C ornell University

Keith Kyongyup Chu, Instructor; B.A., R utgers, The State University of N ew York; M.A. State University of N ew York at Stony Brook
D avid C ohen, Associate Professor; A.A.S., Sullivan County
Community College; B.A., M ontclair State University; M .S., R utgers, The State University of N ew Jersey
Richard Comerford, Professor; B.A., M .A., University of Wisconsin, M adison
G ary C orrea, Assistant Professor; B.S., Tufts University; M .B.A., Pace University
Bernice Guest, Assistant Professor; B.S., The State University of N ew York; M .A., Queens College
Ursula Parrish Daniels, Professor; B.A., O hio Wesleyan University; M .A., H unter College, The City University of N ew York; Ed.D., N ew York University
D onald Del Nero, Associate Professor; B.A., William Paterson University; M .Ed., M onmouth University
Philip C. Dolce, Professor; B.A., St. John's University; M .A., Ph.D., Fordham University
Farivar Fatemi, Associate Professor; B.A., M .A., Fairleigh Dickinson University
Ruth Feigenbaum, Professor; B.A., Douglas College; M .S., Fairleigh Dickinson University; M .A., Columbia University; Ph.D., University of South Carolina
Catherine M . Flynn, A ssistant Professor; B.A., Q ueens College; M .A., St. John's University
Randolph H. Forsstrom, Professor; B.S., Fairleigh Dickinson University; M .S., Purdue University; M .S., Rutgers, The State University of N ew Jersey; M .B.A., M .Phil., Ph.D., N ew York University
Barry Freeman, Professor; B.S., University of Vermont; M .B.A., Baruch College, The City University of N ew York; Ed.M ., Ed.D., Teachers College, Columbia University
D orothy M . G iglietta, Assistant Professor; B.A., St. John's University; M .A., State University of N ew York at Stony Brook
D orothy G leckner, A ssociate Professor; A.A., B.S., Fairleigh
Dickinson University; M .A., M ontclair State University; Ed.D., George Washington University
Peter H elff, Professor; B.A., William Paterson University, M .A., Syracuse University
Franciska Higham, Assistant Professor; Candidate, Licentiate, K atholieke Universiteit van Leuven, Belgium
Lawrence Joel, A ssistant Professor; B.A., Boston College; J.D., Catholic University of America
Corinne Kallman, Professor; B.A., Providence College; M .A., Ph.D., University of Oklahoma
Linda Kass, Assistant Professor; B.A., Q ueens College; M .S., H unter College; M.S., City College of N ew York
M ark Kassop, Professor; B.A., O hio Wesleyan University; M .A., Syracuse University; Ed.S., Seton H all University; Ph.D., N ew York University
M arybeth Klein, Associate Professor; B.S., Thomas Edison State University; M .S., Fairleigh Dickinson University
Rosa Kontos, Instructor; B.S., Fairleigh Dickinson University; M .A., Fairleigh Dickinson University
D avid Kramer, A ssociate Professor; B.S., M ercy College; M .A., John Jay College of Criminal Justice, The City University of $N$ ew York
Richard Kuiters, A ssistant Professor; A.A.S., Bergen Community College; B.S., M ercy College; M .S., Long Island University
Pierre Laguerre, Instructor; B.S., R amapo College; M .B.A., St. Thomas Aquinas College
N elda Latham, Assistant Professor; B.S., City C ollege; M .A., H unter College

Lenore Lerer, A ssistant Professor; B.A., City College of N ew York; M .A., M ontclair State University
Kwok-Leung Li, Professor; B.S., University of H ong K ong; M .A., City College of New York; M .Ed., University of Toronto; Ph.D., Graduate Center, The City University of New York
Donna Lukaszewski, Associate Professor; B.S., M .S., Ph.D., Rutgers, The State University of N ew Jersey; M .S., Fairleigh Dickinson University
William M adden, A ssistant Professor; B.A., Cleveland State University; M .S., M ontclair State University
Anne M aganzini, Professor; B.S., M .A., Ph.D., Fordham University
Christopher M ayer, Associate Professor; B.A., Rutgers, The State University of N ew Jersey; M .B.A., Fairleigh Dickinson University
Florence M cG overn, Professor; B.B.A., Pace University; M .B.A., Fairleigh Dickinson University
Charles M cN erney, Professor; B.S., M .B.A., Fairleigh Dickinson University; Ph.D., N ew York University
Gerald S. M eisel, Professor; B.A., N ew York University; M .B.A., Baruch College, The City University of N ew York; J.D., N ew York University
Rubil M orales-Vazquez, A ssociate Professor; B.A., Drew
University; M .A., Trenton State College; M .A., Ph.D., Rutgers,
The State University of N ew Jersey
Lourdes Laura $\mathbf{O}$ choa, A ssociate Professor; B.A., Barnard College, Columbia University; Ph.D., N ew York University
John $\mathbf{O}$ ckay, A ssociate Professor; B.S., M .S., Seton H all University
John Patierno, Professor; B.A., M .A., M ontclair State University;
Ed.D., Rutgers, The State University of N ew Jersey
Lisa Pavlik, Assistant Professor; B.A., State University of N ew York at Purchase; M .S., Ph.D., Fordham University
Walter Rothaug, A ssociate Professor; B.E. (Chemical), Pratt Institute; M .S., M .S., N ewark College of Engineering; M .A., Ed.D., Rutgers, The State University of N ew Jersey
M ary R yan, Instructor; B.S., M .S., St. Peter's C ollege
Robert Saldarini, Professor; B.S., M ontclair State University; M .B.A., Fairleigh Dickinson University
Sandra Silverberg, Professor; B.A., Syracuse University; M .A., New York University; Certificat d'Etudes, Doctorat du 3e cycle, Faculte es Lettres, Poitiers, France
Theo Solomon, A ssociate Professor; B.S., City College of N ew York; M .A., H unter College, The City University of N ew York
Kevin Sullivan, Professor; B.S., Fordham College; M .A., Colgate University
Arthur Tolve, Associate Professor; B.S., Pratt Institute; M .A., N ew York University; M .A.Ed., St. Peter's College
Anita Verno, Assistant Professor; B.A., University of Rochester; M .S., Fairleigh Dickinson University
M elanie Walker, Instructor; B.A., H unter College; M .A., City University of N ew York
Ann Watkins, Assistant Professor; B.A., M .A., M ontclair State University; Ph.D., Stevens Institute of Technology
M arjorie Webster, Professor; B.S., University of M innesota; M .S., H ofstra University
Robert Wiater, Professor; B.S., University of Pittsburgh; M .S., University of Idaho; Ph.D., St. John's University
Rachel Wieland, Assistant Professor; B.A., Rutgers, The State University of N ew Jersey; M .S., N ew Jersey Institute of Technology
Pierce B. Wilkinson, Professor; B.S., Fordham University; M .A., New York University

Kil J. Yi, Professor; B.A., M .A., State University of N ew York at Albany; Ph.D., R utgers, The State University of N ew J ersey

## Division of Science and Health

R obert Amitrano, Professor; B.S., Seton H all University; D.C., N ew York Chiropractic College
Loretta Alexis, Associate Instructor; Diploma, St. Francis H ospital School of N ursing; B.S., Caldwell College
Susan Barnard, A ssistant Professor; B.S., Thomas J efferson University; M .S., Columbia University; D.H.Sc., N ova Southeastern University
Katherine Benz-C ampbell, A ssociate Professor; A.A.S., Bergen Community College; R.D.M .S., Ultrasound Institute of John F. K ennedy M edical Center; B.S., Thomas A. Edison State College; M .A., M ontclair State University
Thomas Betsy, A ssociate Professor; B.A., Franklin Pierce College; D octor of Chiropractic, Life College School of Chiropractic
Lynda Box, Dean and Professor; B.Sc., Ph.D., University of the West Indies
M aryanne Baudo, Instructor; R.N., Saint Vincent's H ospital School of $N$ ursing; B.S.N., M .S.N ., W illiam Paterson University
Joanna C ampbell, A ssociate Professor; A.S., B.A., University of Bridgeport; M .A., N ew York University, Professional Diploma, Teachers College, Columbia University
Louis Crescitelli, Professor, B.A., M .A., M ontclair State College; Ph.D., N ew York University
Amy Ceconi, Associate Professor; A.A.S., Westchester Community College; B.A., Pace University; M .A., Seton H all University
C arol A. C hovanec, A ssistant Professor; B.A., Drew University; M .S., C ollege of Saint Elizabeth
Deborah A. Cook, Instructor; A.A.S., Bergen Community College; B.S., M ontclair State University; M .A., University of Phoenix

Karen Comai-Fuerherm, A ssistant Professor; B.S., Wayne State University; Ph.D., Cornell University
D ouglas D avis, Professor; B.S., M .S., Trenton State C ollege
Florio DeG aetano, A ssociate Professor; B.S., M.S., Brooklyn College, City University of N ew Y ork; Ed.M .., Columbia University
Eileen M . Deitsch, A ssistant Professor; B.A., Rutgers, The State University of N ew Jersey; M .S., Pace University
Joanne Diamantidis, Assistant Professor; B.S.N ., H unter College, The City University of N ew York; M .S.N ., University of Pennsylvania
R obert D ill, Assistant Professor; B.S., M .S., Florida Institute of Technology
Barbara Downes-D avis, A ssociate Professor; B.S., Fairleigh
Dickinson University; M .S., Ph.D., Columbia University
Patricia Durante, A ssociate Professor; A.A.S., Felician College; B.S.N., Seton H all University; M .A., N ew York University

Steven Fischer, Professor; B.S., Delaware Valley College of Science and A griculture; M .S., Ph.D., University of $M$ aryland
M ary D onohue Flannery, Instructor; B.S., St. Francis College; M .A., Temple University
M aria C. Fressola, A ssociate Professor; B.S.N ., Pace University;
M .A., M .Ed., Ed.D., Teachers College, Columbia University
Bernard Fuersich, Professor; B.S., M .S., N ew York University
M argaret G alla, A ssociate Professor; A.A.S., Bergen Community
College; B.S., Thomas Edison State University, M .A., M ontclair State University
M arie T. Griffo, A ssociate Professor; B.S., A delphi University; M .A., N ew York University

Paul J. Griffo, Assistant Professor; B.S., M .S., Fairleigh Dickinson University
Susan G ruben, Assistant Professor; A.A.S., Bergen Community College; B.S., University of Toledo; M .S., Rutgers, The State University of N ew Jersey
Winifred Guariglia, Professor; Diploma, Saint J oseph's H ospital School of N ursing; B.A., M .A., Jersey City State University; B.S.N ., State University of N ew York at Albany; M .S.N ., Seton H all University
Joshua Guttman, Assistant Professor; B.A., Columbia University; M .S., University of Chicago
Wahid H asan, Professor; B.S., A gra University, India; M .S., Atlanta University; Ph.D., Emory University
Christine H enkel, Professor; A.A.S., Bergen Community College; B.A., William Paterson University; M .S., University of Bridgeport

Robert Highley, A ssociate Professor; A.A., O cean County Community College; B.S., M .S., M ontclair State University
Compton Jenkins, Professor; B.S., Springfield College, M assachusetts; M .A., Trenton State College
M atthew King, Professor; B.S., State University of N ew York at O swego; M .A., Ball State University
Susan Klarreich, Professor; B.S., Queens C ollege, The C ity University of N ew York; M .A., H unter College, The City University of N ew York; M.S., Stevens Institute of Technology; Ph.D., Graduate Center, The City University of New York
William Leonard, Professor; Diploma, Saint Joseph's School of Radiologic Technology; A.A., Tom Brock College; B.A., William Paterson University; M .A., M ontclair State University; P.S.E.S., Rutgers, The State University of N ew Jersey
M artha Lowe, Assistant Professor; B.S., M illsaps College; M .S., East C arolina University
Leslie Lynn, Associate Professor; B.S., State University of N ew York; M .S., M iami University, Ohio; Ph.D., N ew York University
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M auro M arzocco, Professor; B.S.E.E., M .A.T., M .S., Fairleigh Dickinson University; Ed.M ., Teachers College, Columbia University
Peter M artin, Professor; B.A., Columbia College; M .A., N ew York University
M aryellen McH ale, A ssociate Professor; B.S.N ., Georgetown University; M .S., Rutgers, The State University of N ew Jersey
Joan McM anus, Professor; Technician Diploma, N ew York Foundling H ospital; A.A.S., Bergen Community College; B.S., William Paterson University; M .A., N ew York University
Jane M eehan, Professor; B.S.N ., Skidmore College; M .S.N ., H unter College, The City University of N ew York
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Joseph Sivo, A ssistant Professor, B.E. The Cooper Union for the Advancement of Science \& Art; M .S. California Institute of Technology; Ph.D., California Institute of Technology
John V. Smalley, Instructor; A S., Bergen Community College; B.S., M .A., M ontclair State University
Joan Szabo, Associate Professor; B.S., University of N ebraska; M .A., M ontclair State University
H arriet Terodemos, Associate Instructor; B.S., Purdue University
N atalie Timme, A ssociate Professor; B.S., Alfred University; M .A., N ew York University
Gerard Tortora, Professor; B.S., Fairleigh Dickinson University; M .A., M ontclair State University
Toni Tortorella-Genova, Assistant Professor; B.S., College of M ount St. Vincent; B.S., Downstate M edical Center College of N ursing; M .S., H unter-Bellevue College of N ursing
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Robert Colando, Professional A ssistant; B.S., Fairleigh Dickinson University
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H oward D reispan, Technical A ssistant I; A.A., Bergen Community College
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Community College; B.A., William Paterson University
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Certification, Wayne General Hospital; B.A., M .A., W illiam Paterson University
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Community College; B.S., M ontclair State University tions. The committees, which serve as a link between the college and the community, give advice on changes that will help keep the college's career programs up-to-date and responsive to the changing needs of the job market.

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Sandy M allon, H udson City Savings Bank
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Sharon Goldstein, Bergen Community College
Uwe M alakas, Captain, Bergen County Police Department

Christine M atthews, Bergen Community College
M argaret M cLaughlin, Bergen Community College
Tracy Rand, Bergen Community College
Taniqua Seda, United Parcel Service
N ola Stede, Bergen County J ustice Center
Kathy Viola, Girl Scouts Council of Bergen County

## Criminal Justice

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Philip Dolce, Ph.D., Bergen Community College
Wendy Galloway, M ajor, NJ State Police
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Richard Kuiters, Bergen Community College
Leo M cG uire, Sheriff, Bergen County Sheriff's Office
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Trial Intervention
Richard O ppenheimer, President, Bergen County Police Chief Association
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Susan C allahan-Barnard, Bergen Community College
Joanna Campbell, Bergen Community College
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Diagnostic M edical Sonography
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Passaic Beth Israel H ospital
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Regional M edical Center
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Englewood H ospital
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Barbara Buff, Bergen Community College
Scott Croonquist
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Beverly Karas-Irwin, Valley H ospital
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Rose N agle-G irgenti, Director of Continuing Education, St. Joseph's H ospital
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T heresa C harrkas
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Kevin Wudecki, Technical Administrator-Radiology,
Bergen Regional $M$ edical Center

## Respiratory Therapy

M egan Bacek, Respiratory Therapy Department, H ackensack University M edical Center
Kenneth Capek, Respiratory Therapy Department,
Englewood Hospital
Susan Fischer
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M ark Sherman, Ph.D.
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Peter Schoch, Professor, N atural Sciences, Sussex
County Community College
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Brian Voynick, Ph.D., American Animal Hospital

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Compton Jenkins, Bergen Community College
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Institute for Learning in Retirement ..... 201-447-7156
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International Student Advisor ..... 201-447-7211
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Library ..... 201-447-7131
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Student Government Council ..... 201-447-7452
Student N ewspaper (The Torch) ..... 201-493-5006
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[^0]:    *Lab Science Elective. To receive full general education credit for CHM 140, a student must also take CHM 141, and for CHM 240, a student must also take CHM 241.
    $\dagger$ Some colleges may require both BIO109 and BIO209 before transfer credit is awarded.
    -These courses satisfy the Bergen Diversity Requirement.

[^1]:    * Choose one of the following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208.
    ** Choose one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

[^2]:    * General Education Elective in History - see page 73
    ** General Education Electives in Arts and M edia, Literature, Philosophy and Religion, or World Languages - see page 73.
    *** General Education Elective - see page 73.

[^3]:    * See page 73. Recommended: PSY101 General Psychology
    ** General Education Elective in History - see page 73.
    *** General Education Elective - see page 73.
    $\dagger$ See page 73.
    $\ddagger$ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
    - Select any Psychology course.
    - General Education Elective in Anthropology, Economics, Geography, Political Science, or Sociology - see page 73.

[^4]:    * See page 73. Recommended: PHR120 Introduction to Religion.
    ** General Education Elective in History - see page 73.
    *** General Education Elective - see page 73 .
    $\dagger$ See page 73. Recommended: PHR121 Religions of the World.
    $\ddagger$ Select any Religion course.
    - General Education Electives in Arts and Media, Literature, or World Languages - see page 73.

[^5]:    * See page 73.
    ** General Education Elective in History - see page 73.
    *** General Education Elective - see page 73.
    $\dagger$ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
    $\ddagger$ Select any two courses from the fields of Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

[^6]:    * See page 73. Recommended: SOC101 Sociology.
    ** General Education Elective in History - see page 73.
    *** General Education Elective - see page 73.
    $\dagger$ See page 73.
    $\ddagger$ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 73.
    - Select any Sociology or Anthropology course.
    - General Education Elective in Economics, Geography, Political Science, or Psychology - see page 73.

[^7]:    * General Education Elective in Arts and Media, Literature, Philosophy and Religion,or World Languages - see page 73.
    ** General Education Elective - see page 73.
    *** General Education Elective in History - see page 73.
    † Recommended: THR101 Introduction to Theatre; M US110 M usic, Art, and Drama; THR140 Introduction to Cinema
    $\ddagger$ Dance Technique classes should be selected from those DAN classes offered

[^8]:    * M AT280 Calculus I is required of all students in Natural Sciences and Mathematics programs.
    ** Choose one of the following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208.
    *** Choose at least one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

[^9]:    * General Education Elective - see page 73

[^10]:    * General Education Elective - see page 73.
    ** PHY186 General Physics I and PHY286 General Physics II are highly recommended.

[^11]:    * General Education Elective - see page 73.

[^12]:    * Choose one of the following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208.
    ** To fulfill these requirements for the A.A.S. degree, the student must follow one of the A.A.S. degree programs listed on the following pages
    *** Choose at least one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; HIS124; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

[^13]:    * Course uses M acintosh computers
    ** General Education Elective - see page 73.
    *** "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 Web Developer Recommended in 4th: ART290 and/or ART292
    $\dagger$ Recommended: ART101 Introduction to Art and Visual Culture, ART102 History of Art and Visual Culture to 1400, ART103 History of Art and Visual Culture 1400-1900, or M US110 M usic, Art, and Drama

[^14]:    * Class offered only during fall semester
    ** Specialized course that may be offered only in the evening.
    *** General Education Elective
    $\dagger$ Class offered only during spring semester
    $\ddagger$ ECO-201 M icroeconomics is recommended.

[^15]:    Required for Admission: 2,000 hours of clinical experience plus a current New Jersey RN License

    * Specialized course which may be offered only in the evening.
    ** General Education Elective - see page 73.
    $\dagger$ PHR105 Professional Ethics is Recommended.

[^16]:    Program Goals - It is the goal of the Legal Nurse Consultant and Paralegal Studies Programs to provide students with knowledge in a wide-range of substantive legal fields and to provide practical skills necessary for the legal workplace environment. The programs shall promote adherence to ethical practice and professional responsibility as legal professionals working in cooperation with and under the supervision of attorneys. The programs shall respond to the needs of legal community and promote the economical and efficient delivery of legal services through the use of quality instruction and modern technology. For Complete Program Goals see www.bergen.edu/pages/2642.asp

    The practice of law is limited to attorneys admitted to practice within the jurisdiction. Completion of either the Legal Nurse Consultant Program or the Paralegal Studies Program does not authorize the graduate to practice law.

[^17]:    * General Education Elective - see page 73.
    ** Class offered only during fall semester.
    *** Class offered only during spring semester.

[^18]:    * General Education Elective - see page 73.

[^19]:    * General Education Elective - see page 73.
    ** MA155 Finite Math strongly recommended.
    *** Students may enroll in this class during any semester with permission of the Department Coordinator.

[^20]:    * Course uses custom workstations running Windows XP.
    ** General Education Elective - see page 73.
    *** Course uses Macintosh computers.

[^21]:    * General Education Elective - see page 73.

[^22]:    * Offered only in the spring
    ** Offered only in the fall

