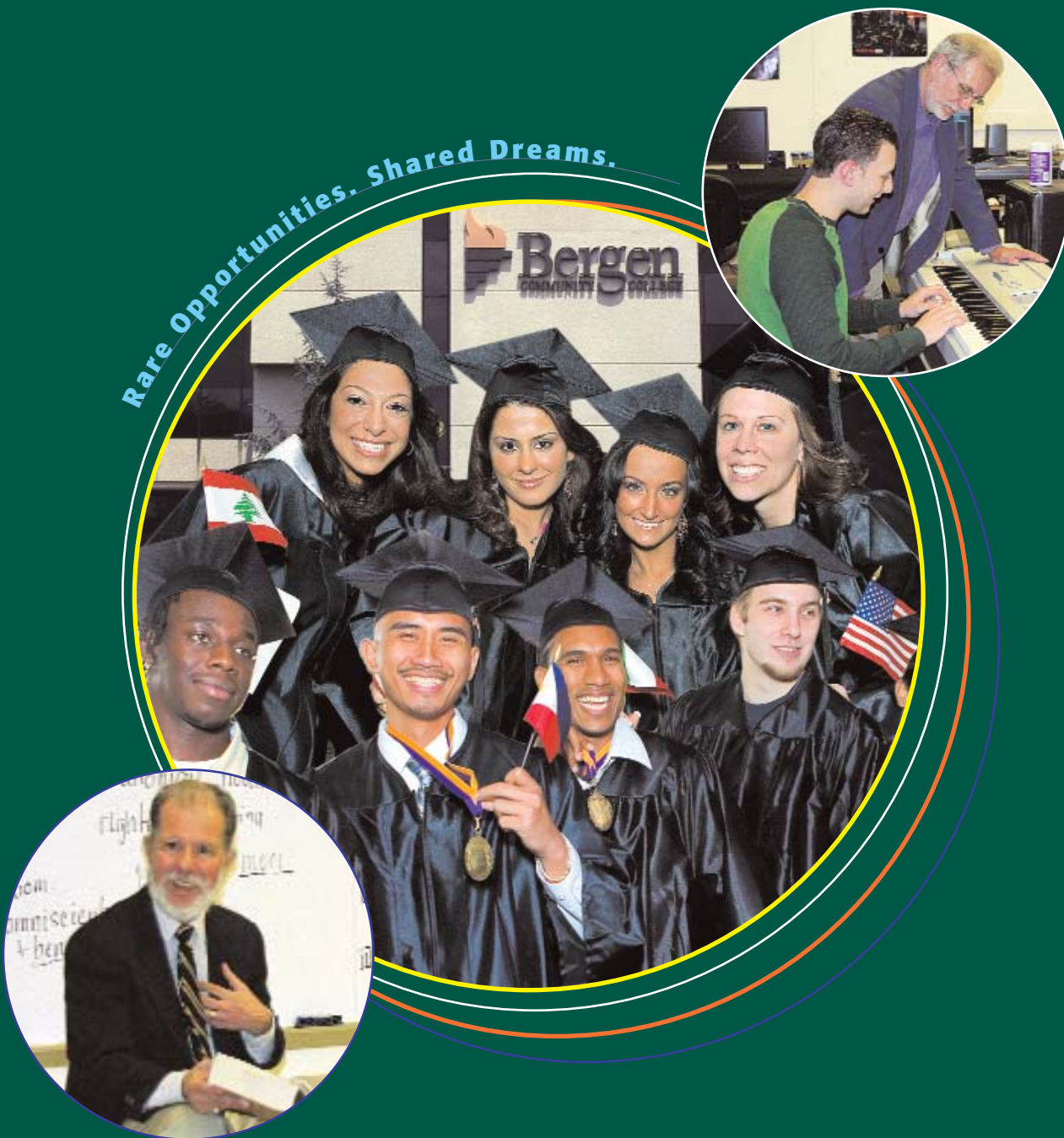


# Bergen

COMMUNITY COLLEGE

Rare Opportunities. Shared Dreams.



2006 - 2007

# Catalog

# Directions 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 as above.

## FROM THE EAST

Take Route 4 (via George Washington Bridge from New York City) to Paramus Road, Paramus. (From the east, Paramus Road is approximately 3/4 miles past Route 17 intersection). Turn right onto Paramus Road and proceed north for approximately two miles to college entrance on right side of Paramus Road.

## FROM THE SOUTH

(Via Garden State Parkway) Take Exit 160 (Passaic Street). Turn left onto

Passaic Street. Continue over Route 4 onto Paramus Road (Passaic Street becomes Paramus Road north of Route 4 overpass). Continue north about two miles on Paramus Road to college entrance on right.

(Via Route 17) Take Century Road, second exit to the right, proceed around clover leaf over Route 17 onto Century Road (west). Continue to Paramus Road and turn right onto Paramus Road to college entrance on right.

## FROM THE WEST

Take Route 4 to Paramus Road, Paramus (exit under overpass). Turn right onto Paramus Road and proceed north for approximately two miles to college entrance on right side of Paramus Road.

## BY BUS

For NJ Transit information call 1-800-772-2222, or [www.njtransit.com](http://www.njtransit.com).

**The 756 Englewood - BCC** bus stops on campus at both the Pitkin Education Center and East Hall. The 756 schedule provides direct service to the college across Bergen County.

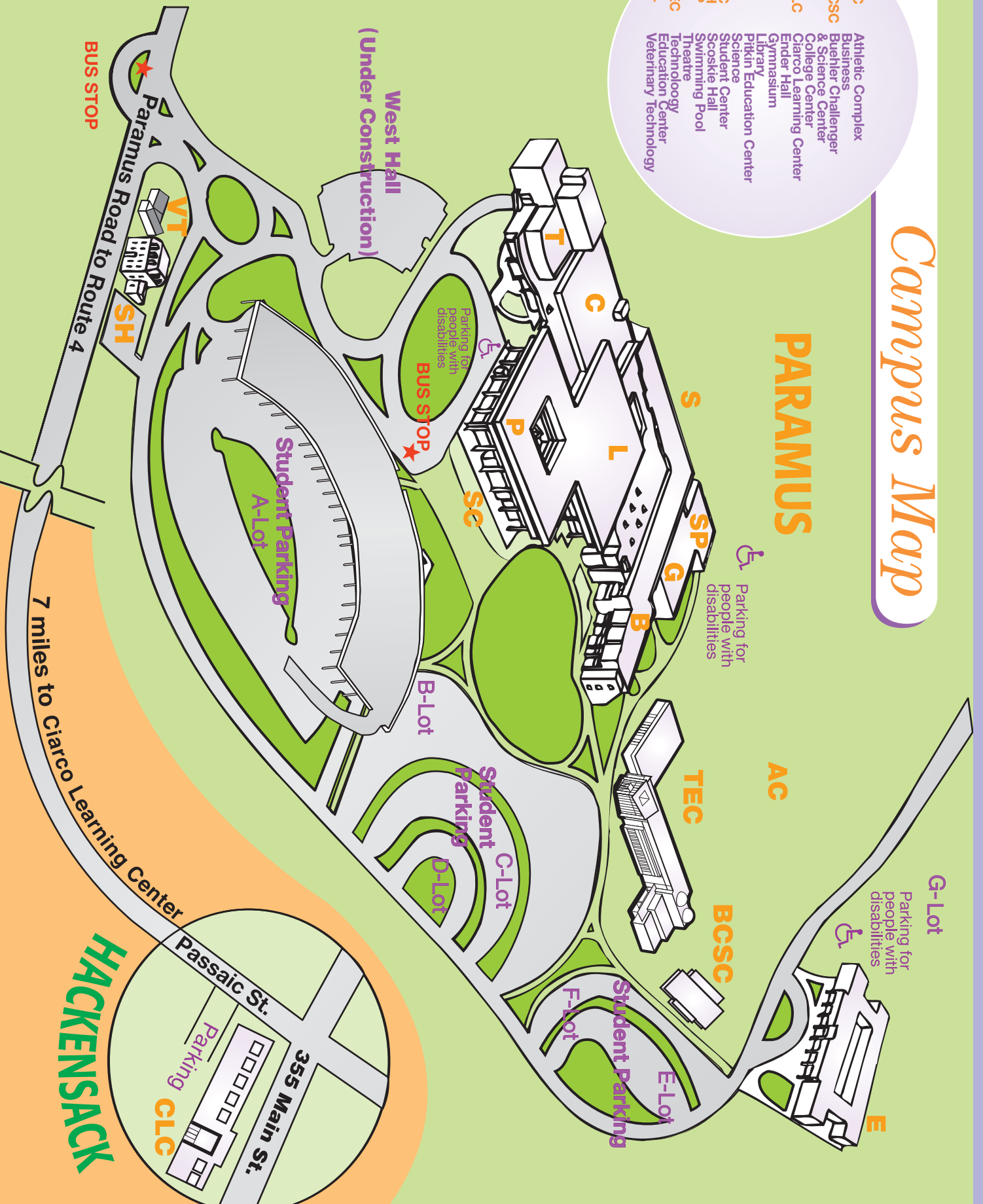
**The 163 Ridgewood - New York** bus stops on Paramus Road at the main entrance to the College and provides direct service from Southwest Bergen County. **The 751/755 Edgewater-Paramus** bus route extends to and from the College via Teaneck and Hackensack.



# Campus Map

- AC Athletic Complex
- BCSC Business Buehler Challenger & Science Center
- CLC College Learning Center
- E Ender Hall
- G Gymnasium
- L Pitkin Education Center
- P Science
- SC Student Center
- SH Seoskie Hall
- SP Swimming Pool
- T Theatre
- TEC Technology Education Center
- VT Veterinary Technology

## PARAMUS



AC

TEC

BCSC

E

E-Lot

Student Parking

F-Lot

B-Lot

Student Parking

D-Lot

B-Lot

Student Parking

A-Lot

SC

P

L

S

G

SP

B

C

T

VT

BUS STOP

Paramus Road to Route 4

West Hall  
(Under Construction)

7 miles to Ciarco Learning Center

HACKENSACK

Passaic St.  
355 Main St.  
Parking  
CLC

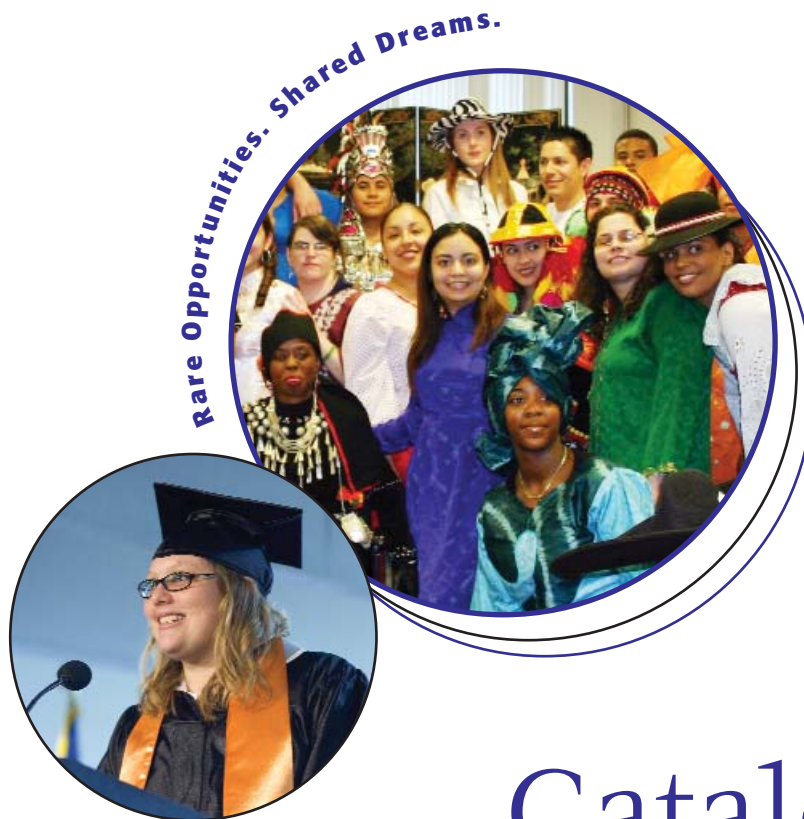
Parking for people with disabilities

Parking for people with disabilities

G-Lot

# Bergen

## COMMUNITY COLLEGE



# Catalog

## 2006-2007

<http://www.bergen.edu>

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

The College reserves the right to change any provisions contained in this publication without prior notice. Students are responsible for the information contained in this catalog. Failure to read this catalog does not excuse students from the requirements and regulations contained herein. The curriculum is accurate as of July 2006. For the most current curriculum, see the e-catalog at <http://www.bergen.edu/ecatalog/2006>.

**NONDISCRIMINATION POLICY:** It is the policy of Bergen Community College to provide access to educational programs, services, and benefits to all students, without regard to religion, race, color, national origin, ancestry, age, sexual orientation, marital status, sex, disability, or veteran status, 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 Older Americans Act of 1975, and the Americans with Disabilities Act of 1990, and the New Jersey Law Against Discrimination. Questions about these laws or allegations of violations of students rights should be addressed to: Raymond E. Welch, Manager of Training and Compliance, Bergen Community College, 400 Paramus Road, Paramus, New Jersey, 07652; 201-612-5331 (voice), or 201-447-7845 (TTY) or to the Secretary, Department of Education, Washington, D.C. 20201.

# BERGEN COMMUNITY COLLEGE



## *Vision Statement*

AS THE COLLEGE MOVES INTO THE TWENTY-FIRST CENTURY, our vision is that of a learning community which values the contributions of all students, staff, faculty, and administrators in order to provide an unparalleled educational experience. We will support an ongoing process of improvement through continued assessment of our vision, values, practices, and mission.

### **A LEARNING COMMUNITY**

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

### **A SERVICE COMMUNITY**

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

### **A DIVERSE COMMUNITY**

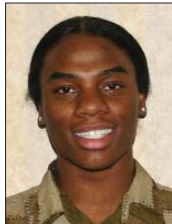
We will respect the integrity of all persons and will build an inclusive community, enriched by its diversity.

### **A PARTNERSHIP COMMUNITY**

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

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

# BERGEN COMMUNITY COLLEGE



## *Mission Statement*

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

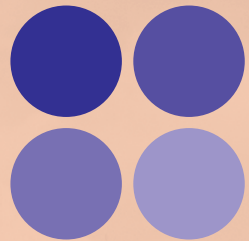


W

elcome to Bergen Community College.

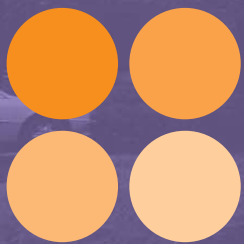
At Bergen, we offer personal, purposeful and engaging experiences that are relevant to you today—and to your future.

The College provides the opportunity for the personal and intellectual growth that will prepare you for further educational pursuits, or a new career. Bergen Community College – knowledge for today, confidence for tomorrow.





# Knowledge for today Confidence for tomorrow





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## A MESSAGE FROM THE PRESIDENT

*Welcome to Bergen Community College. From its inception as the county's first public, two-year institution of higher learning, Bergen Community College has continued to meet its mission. The specific components of a Bergen education have evolved over time but the mission has essentially remained intact. Our mission is to provide high quality, relevant, and varied educational programs for the intellectual, cultural, and personal growth of all members of the community. We offer personal, purposeful, and engaging experiences that are relevant to you today—and to your future. Our promise to you is one of personal and intellectual evolution. We will challenge your intellect as you learn and build the confidence that will carry you through life. You will meet dedicated faculty who are personally committed to your intellectual and personal development and classmates whose aspirations and love of learning will inspire you. You will go beyond the familiarity of the campus to learn, study, and become actively involved and engaged in the community around you.*

*At Bergen Community College, you will learn in different ways—in the classroom, online, through an internship, on the playing field, serving the community, or with friends. You will be mentored, you will be part of a team and you will be given the opportunity to become a leader. You will learn in ways you never expected, expand your horizons, discover new passions, and develop a new-found intellectual curiosity. You will be challenged and, most importantly, you will discover that your greatest challenges are generated through your own self-discovery. That's what a Bergen Community College education is all about. From your first day here through commencement, you will find opportunities that make all the difference—like the chance to work with a faculty mentor. An exciting education awaits you at Bergen Community College. Equipped with the knowledge and confidence you gain here, you will be ready to build your own future, and at the same time, you will become a part of ours.*

*Judith K. Winn*

Judith K. Winn

# Calendar

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

## Fall 2006

**Labor Day Holiday, College Closed** . . . . . Monday, Sept. 4  
**CLASSES BEGIN** . . . . . Wednesday, Sept. 6  
**Change of Registration**  
9:30 a.m. - 6:30 p.m. . . . . Wed.-Thurs., Sept. 6-7  
9:30 a.m. - 5:30 p.m. . . . . Friday, Sept. 8  
9:30 a.m. - 6:30 p.m. . . . . Mon.-Tues., Sept. 11-12  
Last day to receive 100% refund . . . . . Tuesday, Sept. 12  
Last day to receive 50% refund . . . . . Tuesday, Sept. 19  
Last day to receive 25% refund . . . . . Tuesday, Sept. 26  
No refunds after this date  
Last day to request Audit Status . . . . . Wednesday, Sept. 27  
Last day to make arrangements with Faculty to  
resolve Spring/Summer 2006 "INC" grades . . . Friday, Sept. 29  
**Yom Kippur Holiday, College Closed** . . . . . Monday, Oct. 2  
Last day for Faculty to resolve  
Spring/Summer 2006 "INC" grades . . . . . Friday, Oct. 13  
Application Deadline for Spring 2007 for  
International Students holding Student Visas . Monday, Oct. 16  
**Continuing Students Priority Registration  
for Spring 2007, by appointment** . . . Mon.-Fri., Oct. 23-Dec. 1  
**Official Withdrawal Deadline, Fall 2006** . . . Tuesday, Nov. 14  
*(Courses that start after the first week of classes or  
that end mid-semester have adjusted deadlines.)*  
**Thanksgiving Holiday, College Closed** Thurs.-Fri., Nov. 23-24  
No classes or academic services . . . . . Saturday, Nov. 25  
**New Students Priority Registration  
for Spring 2007, by appointment** . . . . . Mon.-Fri., Dec. 4-15  
**Degree Application Registration  
for May 2007 Graduation** . . . . . Friday, Dec. 8  
**CLASSES END** . . . . . Friday, Dec. 22  
**Winter Recess, College Closed** . . . Mon.-Mon., Dec. 25-Jan. 1  
Emergency makeup days . . . . . Tues.-Wed., Jan. 2-3

In the event that it is necessary to delay the opening of the College or to close the College temporarily, please consult the following sources for the official instructions:

WABC / 77  
WCBS / 880  
1010WINS  
<http://www.WOR710.com>  
WVNJ1160  
Cablevision / News 12 NJ

or check Bergen's Web site at <http://www.bergen.edu>

## Spring 2007

**College Reopens** . . . . . Tuesday, Jan. 2  
**Open Registration** . . . . . Tues.-Wed., Jan. 2-10  
**CLASSES BEGIN** . . . . . Friday, Jan. 12  
**Change of Registration**  
9:30 a.m. - 5:30 p.m. . . . . Friday, Jan. 12  
9:30 a.m. - 6:30 p.m. . . . . Tues.-Thurs. 16-18  
**Martin Luther King Jr. Holiday, College Closed** Monday, Jan. 15  
Last day to receive 100% refund . . . . . Thursday, Jan. 18  
Last day to receive 50% refund . . . . . Thursday, Jan. 25  
Last day to receive 25% refund . . . . . Thursday, Feb. 1  
Last day to request Audit Status . . . . . Thursday, Feb. 1  
Last day to make arrangements with Faculty to  
resolve Fall 2006 "INC" grades . . . . . Monday, Feb. 12  
Last day for Faculty to resolve  
Fall 2006 "INC" grades . . . . . Friday, Feb. 23  
**Spring Recess, No classes** . . . . . Mon.-Fri., March 12-16  
No classes or academic services . . . . . Saturday, March 17  
**Official Withdrawal Deadline, Spring 2007** . Thursday, March 22  
*(Courses that start after the first week of classes or  
that end mid-semester have adjusted deadlines.)*  
**Continuing Students Priority Registration  
for Summer 2007, by appointment** . . . Mon.-Fri., March 26-30  
**New Student Registration  
for Summer 2007** . . . . . Mon.-Mon., April 2-May 14  
**Continuing Students Priority Registration  
for Fall 2007, by appointment** . . . . . Mon.-Fri., April 16-May 4  
**Good Friday Holiday, College Closed** . . . . . Friday, April 6  
No classes or academic services . . . . . Saturday, April 7  
**New Student Registration  
for Fall 2007** . . . . . Mon.-Mon., April 30-Aug.13  
**CLASSES END** . . . . . Monday, May 7  
Emergency makeup days . . . . . Tues.-Wed., May 8-9  
**COMMENCEMENT** . . . . . Friday, May 18

## Summer 2007

### SESSION I

**CLASSES BEGIN** . . . . . Monday, May 21  
**Change of Registration** . . . . . Mon.-Tues., May 21-22  
**Memorial Day Holiday, College Closed** . . Monday, May 28  
**CLASSES END** . . . . . Thursday, June 28

### SESSION II

**CLASSES BEGIN** . . . . . Monday, July 2  
**July 4th Holiday, College Closed** . . . . . Wednesday, July 4  
**Change of Registration** . . . . . Mon.-Tues., July 2-3  
**CLASSES END** . . . . . Thursday, Aug. 9

\* The latest version of this academic calendar is at <http://www.bergen.edu>

For other events of interest check our online calendar at <http://www.bergen.edu>

# **BERGEN COMMUNITY COLLEGE STRATEGIC PRIORITIES**

## *Strategic Planning*

### **SUPPORT STUDENT SUCCESS:**

Promoting a Positive Climate for Learning

- Address needs of diverse student population
- Create 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 EMPOWER FACULTY AND STAFF:**

Supporting our Human Resources

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

### **PROMOTE 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
- Market 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
- Refurbish existing brick and mortar facilities
- Optimize use of technological and physical resources
- Expand partnerships with high schools and institutions of higher education
- Increase effort to secure public and private funding

### **INSTITUTIONALIZE ASSESSMENT AND PLANNING:**

Reflecting on What We Do

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

# General Information



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

*The instructional programs are designed to prepare students for transfer to four-year colleges and 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 College receives funding from the Bergen County Board of Chosen 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 self-realization. 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 New 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 two-year county college in Bergen County.

In October 1963, the "County College Study 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 April 7, 1965, the Bergen County Board of Chosen Freeholders submitted a petition to the State Board of Education requesting permission to establish a county college in Bergen County and 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 New Jersey State Commissioner of Education, described in the September 1965 report to the State Board of Education (pursuant to N.J.S.A. 18:22-101), was essentially that there was sufficient and reliable evidence of the need for a county college in Bergen County and that the county was financially able to construct and operate the proposed college.

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

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

The College was projected to fulfill immediate and 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 College 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. 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 Master Plan, approved by the Board of Trustees on July 19, 1967, called for two phases of construction. Phase I, completed in 1973, cost about 21 million dollars and totaled 430,000 square feet. In 1987, the Board of Trustees approved a Facilities Master 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 Master 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 were interested in studying English as a Second Language. The newly renovated facility at the corner of Main and Passaic Streets, Hackensack, was opened on October 14, 1999. The Center houses spacious seminar rooms, classrooms, computer laboratories, and student lounge areas.

On August 2, 2005, President Judith K. Winn, members of the College's Board of Trustees, the College's Foundation Board, and municipal and county government officials helped break ground for a \$16,316,000 building designed to keep pace with Bergen's growing enrollment trend and the educational needs of our students. The new West Hall building will house Bergen's Educational Broadcast Center and the Media Technologies Department which includes television studios, a radio studio, and a video conference center. West Hall will also house the College's Fine and Graphic Arts facilities comprised of computer graphics, animation laboratories, exhibition rooms, art history classrooms, as well as music and instructional areas.

## Accreditations

Bergen Community College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market 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 Health Education Programs (CAAHEP):

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

The **Nursing Program** is approved by the New Jersey State Board of Nursing and is also accredited by the National League for Nursing Accrediting 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 Nurse Consultant Program** are approved by the American Bar Association.

The **Veterinary Technology Program** is accredited by the American Veterinary Medical Association.

# Admissions



*Bergen Community College maintains  
an open door policy  
for degree and non-degree-seeking students.*

*Most 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 14,700 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 Mathematics course.
- Financial aid is not available to non-degree-seeking students.

## **Degree-Seeking Students**

- Students seeking admission to the Allied Health or Nursing programs should refer to the chart on page 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 May 1 for fall admissions or October 15 for spring admissions.
- Official high school transcripts are required for: Allied Health, Nursing, 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 Office 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 18 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 toward or for a prior degree or certificate are considered transfer credits and apply toward a second degree as outlined in the College Residency Policy. Such applicants should write "Second degree" at the top of their applications.

*Students may earn only one Associate in Arts (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 the international student status (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 Office. Sponsorship, either from the individual

student 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 MUST 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 May 1st; for the spring semester (January) the deadline is October 15th. These dates are subject to any changes that might be implemented by the United States Citizenship and Immigration Services.

Please note that effective January 2003, mandatory Student and Exchange Visitor Information System (SEVIS) guidelines have been implemented by the United 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 MUST 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.

## **Special Notes**

International applicants cannot apply for Allied Health and/or Nursing 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 American Language Program (ESL courses) cannot take college-level 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 problems, and to assist them in participating fully in student life. 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 disabled students. The Office of Specialized Services serves students with physical, visual, learning, hearing, and emotional disabilities. Continuous contact 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 and accommodations needed to the Office of Specialized Services as soon as possible; otherwise, no services can be provided. Students must indicate that they have a disability on the postcard insert in the application to the College or on the Web application. Disclosure on the application is voluntary but must be made if services are to be provided in a timely manner.

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

## 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 Office 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 Number.** 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 Assessment and Placement Test in reading, writing, computation, and algebra. The results of this test determine a student's required entry level courses in both English and Mathematics. Under specific conditions, a student may have 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 American Language Program (ALP). Students placed in the ALP are required to complete this program before registering for courses in their chosen curricula. Students who complete the ALP or who have tested out of the program through the 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, Room S-127. There is no fee for this examination.

## Challenge Testing

Due to a variety of circumstances students may not perform to the best of their abilities on the Basic Skills Assessment and Placement Test. To reassess basic skills proficiency, Challenge Tests are offered in English, Computation, and Algebra. Challenge Tests are offered periodically throughout the semester. A copy of Challenge Test policies and procedures with a current schedule of test dates may be obtained in person from the Office of Testing Services, Room 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. However, a successful proficiency test carries no course credit. Proficiency test registration forms can be obtained from the Office of Testing Services, Room S-127. There is a \$30 fee for each proficiency test taken.

## Credit-by-Examination

The Office of Testing Services administers credit-by-examination (CBE) for a large number of college-level courses. In order to receive college credit for a particular course, a student must earn a passing grade on specific subject examinations. Upon successful completion of an examination, the student will pay a \$15 per-credit fee 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 GED test. The GED test consists of five parts: Writing, Social Studies, Science, Mathematics, 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 Money Order payable to the Commissioner of Education
- Present a valid picture identification with signature
- Provide proof of birth date (a certificate of consent to participate, obtainable through this office, must be signed by a parent or guardian for 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, Room 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 Requirements.

## World Language Testing

The College awards credit for World Languages through the New York University Proficiency Testing in Foreign Languages Program, and the College Level Examination Program (CLEP). For information on any of these testing options, contact the Office of Testing Services at 201-447-7202, Room S-127.

## BASIC MATHEMATICS AND ALGEBRA RETESTS

To support the instructional objectives of the Developmental Mathematics program, retests for mathematics and algebra are administered by the Developmental Mathematics 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 College 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 > Academic 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 transferred 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 Another 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 appropriate Department Head.

## TRANSFER TO OTHER INSTITUTIONS

What colleges do students attend after Bergen? Many of them transfer to New 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	New School University
Arizona State University	New York University
Baruch College (CUNY)	Pace University
Boston College	Parsons School of Design
Boston University	Penn State University
Brown University	Rensselaer Polytechnic Institute
Cornell University	School of Visual Arts
East Stroudsburg University	Smith College
Fashion Institute of Technology	SUNY: <i>Albany, Binghamton, New Paltz, Stony Brook</i>
Florida International University	University of Connecticut
Fordham University	University of Delaware
Georgetown University	University of Maryland
Hampton University	University of Massachusetts
Harvard University	University of Michigan
James Madison University	University of Rochester
John Jay College (CUNY)	University of Vermont
Johnson and Wales University	University of Virginia
Lehigh University	Washington University
Long Island University	Yale University
Manhattan College	

### Transfer Agreements with Other Schools

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

Berkeley College  
Capella University  
Fairleigh Dickinson University  
Manhattan College  
Montclair State University  
New Jersey Institute of Technology  
New York University - School of Education  
Palmer College of Chiropractic  
Ramapo College  
Rutgers University  
Saint Peter's College  
Seton Hall University  
St. John's University  
St. Thomas Aquinas College  
SUNY New Paltz  
Thomas Edison State College  
University of Phoenix  
William Paterson University

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 New Jersey colleges and universities, NJTransfer (<http://www.njtransfer.org>) is a web-based 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.

### New Jersey Transfer Articulation Principles

The New Jersey President's Council approved the following principles to govern transfer from associate to baccalaureate programs in New 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. Once admitted, students will have the same status as students who have been attending the four-year college for their first two years (native students).

As 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. However, 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

Many 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 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 New 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 Office 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. Only unofficial copies of a transcript will be issued directly to students.

### Transfer Counseling

For assistance with the college selection process, students are encouraged to attend Transfer Advising Workshops which are held each semester. Appointments with a transfer counselor may be made in the Counseling Center, Room A-118. Representatives from New Jersey and out-of-state colleges visit the campus throughout the year.

Information and reference materials are available in the counseling center. Applications for most colleges are available on the Internet; some are available in the Transfer Office, Room A-118.

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

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	REQUIRED SCORE	CREDIT GRANTED	BERGEN COURSE CREDIT
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
Human Growth and Development	50	3	PSY 106
Principles of Macroeconomics	50	3	ECO 101
Principles of Microeconomics	50	3	ECO 201
Introduction to Sociology	50	3	SOC 101
Western Civ. I: Anc. Near East-1648	50	3	HIS 101
Western Civ. II: 1648-Present	50	3	HIS 102
Precalculus	61	4	MAT 180
Calculus with Elementary Functions	50	4	MAT 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 Management	50	3	BUS 207
Principles of Marketing	50	3	BUS 201
Introduction to Business Law	50	3	BUS 233

### Minimum Scores Required To Earn Credit Through The General Examinations

English Composition with Essay	50	3	Multiple Choice w/Essay WRT 101
Humanities (choice of 2)	50	6	Music Appreciation MUS 101 Intro to Art and Visual Culture ART 101 World Literature I LIT 203
Mathematics	50	3	Contemporary Math MAT 130
Natural Sciences	50	8	Intro to Physics PHY 185 and General Biology BIO 101
Social Sciences and History	50	6	Sociology SOC 101 and Western Civ I HIS 101

**VISIT CLEP ON THE WEB! [www.collegeboard.com/clep](http://www.collegeboard.com/clep)**

## 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 College Entrance Examination Board (CEEB) before credit is awarded.

CREDIT	SCORE	BERGEN CREDIT	CREDITS GIVEN
History 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	MAT 280 and 281	8 credits
Calculus BC	3, 4, 5	MAT 280, 281 and 282	12 credits
Chemistry	3, 4, 5	CHM 140, 141, 240 and 241	8 credits
Computer Science A	4, 5	INF 153	3 credits
Computer Science AB	4, 5	INF 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: Mechanics	3, 4, 5	PHY 280	4 credits
Physics C: Electricity & Magnetism	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 Nursing 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. Applicable 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 Allied Health programs must carry personal medical health insurance.

Nursing 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 Mantoux skin test for tuberculosis.

Students seeking admission to Nursing (Day), Dental Hygiene, Diagnostic Medical Sonography, and Radiography must submit complete applications by March 1 for fall (September) admission. Nursing (Evening) applications are due by October 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. Agency 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 Career Programs

(Each prerequisite course must be passed with 2.0 or higher)

PROGRAM	COLLEGE CODE	LENGTH/DEGREE	PREREQUISITES	SUBSTITUTIONS	MINIMUM G.P.A.
Dental Hygiene◆	AAS.AH.DENTL	2 year A.A.S.	Chemistry w/lab, Biology w/lab, Algebra	CHM 100, BIO109*, MAT 035 or MAT 031/032	2.5 Passing Entrance Exam
Diagnostic Medical Sonography**◆	AAS.AH.DMS	2 year A.A.S.	High School AP BIO/LAB‡ High School AP Physics‡ High School Algebra	BIO 109*, MAT 035 or MAT 031/032, PHY185	2.5
Exercise Science	CERT.EXER.SCI AS.PS.EXER	1 year Certificate 2 year A.S.	High School Graduation or GED High School Graduation or GED	None None	2.0 2.0
Health Science	AAS.H.HLTH.SCI	1 year A.A.S.	Prof. Cert./License	None	2.0
Medical Office Assistant	AAS.AH.MOA CERT.MOAA	2 year A.A.S. 1 year Certificate	One Science, One Math	BIO 109*, MAT 011	2.0
Nursing (Day)◆ Nursing (Eve)*** LPN/ADN Mobility Track (Day)† LPN/ADN Mobility Track (Eve)***†◆	AAS.NURS.DAY AAS.NURS.EVE AAS.NURS.MBL.DAY AAS.NURS.MBL.EVE	2 year A.A.S.	Chemistry w/lab, Biology w/lab, Algebra	CHM 100, BIO 109*, MAT 035 or MAT 031/032	2.5 (Fall 06) 3.0 (Sp 07) Passing Entrance Exam
Pre-Chiropractic	AS.NSM.CHIR	2 year A.S.	High School Graduation or GED	None	2.5
Radiation Therapy◆◆	CERT.RAD.THERAPY	1 year Certificate	Certification as Radiographer Two Biology w/lab, Algebra, Precalculus, General Physics	None BIO 109* and BIO 209, MAT 045, MAT 180, PHY 185	2.5
Radiography	AAS.AH.RAD	2 year A.A.S.	One Science, Algebra	BIO 109*, MAT 035 or MAT 031/032	2.5
Respiratory Therapy	AAS.AH.RESP	2 year A.A.S.	Chemistry w/lab, Biology w/lab, Algebra	CHM 100, BIO 109*, MAT 035 or MAT 031/032	2.0
Surgical Technology	CERT.SURG	1 year Certificate	High School Graduation or GED	None	2.0
Vascular Technology	CERT.VAS.TECH	1 year Certificate	ARDMS Registry Status◆◆◆	Refer to ◆◆◆◆	—
Veterinary Technology††	AAS.H.VET	2 year A.A.S.	Chemistry w/lab, Biology w/lab, Algebra	CHM 100, BIO 115, MAT 035 or MAT 031/032	2.0

\* HS Biology is waived if college biology, preferably BIO109, is successfully completed.

\*\* The Diagnostic Medical Sonography Program is a regional program that utilizes clinical affiliates throughout New Jersey. Students may be required to travel to distant sites and provide their own transportation in the clinical education component of the program.

\*\*\* Evening Nursing applicants cannot be accepted until general corequisites (8 courses) have been completed. These courses are: BIO109\*, BIO209, WRT101, WRT201, PSY101, PSY106, SOC101, and WEX101.

† Applicants must have a valid New Jersey LPN licence.

†† Applicants for the professional component (second semester) of the Veterinary Technology program cannot be accepted until all prerequisites have been completed. These courses include WRT101, BIO115, CHM112, VET102, and VET103. Students are advised to consult with the coordinator of the Veterinary Technology program for additional information regarding the application procedures. See the Technology program for additional information regarding the application procedures.

‡ Documentation of advanced placement test required for the Diagnostic Medical Sonography Program.

◆ Students seeking admission to Nursing (Day), Dental Hygiene, Radiography, or Diagnostic Medical Sonography must submit complete applications by March 1, for fall (September) admission. Nursing (Evening) applications are due by October 1 for spring (January) admission. These deadlines may be extended, if classroom space permits.

◆◆ In addition to the above requirements, applicants cannot be accepted into the program until at least two of the following four general education courses have been completed: MAT250, CIS158, WRT201, and SPE111. Students are advised to consult with the coordinator of the Radiation Therapy program for additional information regarding requirements and application procedures.

◆◆◆ ARDMS (American Registry for Diagnostic Medical Sonography), Registry Status and must be a graduate of CAAHEP (Commission on Accreditation of Allied Health Education Programs), accredited Diagnostic Medical Sonography Program. Students with a bachelor's degree are eligible.

◆◆◆◆ Students not ARDMS Registered, or have not graduated from an accredited Diagnostic Medical Sonography Program must complete the following before admission into the Vascular Certificate program: College Level Science, College Level Physics and College Level Algebra.



# Special Student Programs



*Bergen Community 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 help them reach their goals.*

*Participation in the Honors Program, Cooperative Education, Service Learning, Educational Opportunity Fund, College 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 New Jersey State Legislature in 1968 for the purpose of helping economically and educationally disadvantaged students obtain a college education. Students who are accepted into the program are provided with a grant and comprehensive support services designed to enhance their college experience and to insure the success of each participant. 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 New 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.

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

Household Size	Gross Income for Previous Year not to Exceed*
1 person	\$18,620
2 people	\$24,980
3 people	\$31,340
4 people	\$37,700
5 people	\$44,060
6 people	\$50,420
7 people	\$56,780
8 people	\$63,140

\*Subject to change. Add \$6,360 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 EOF 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-126, 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. Overall average of "B" (3.0) in high school courses.
3. Written approval by parent and high school officials. Home 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. Auditing courses is not permitted in the CEP. Application 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 Mathematics 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 Mathematics portion of the Basic Skills Placement Test, a student may be placed into developmental math courses: Basic Mathematics (MAT-011) or the sequence of Algebra A and B (MAT-031 and MAT-032), or Algebra (MAT-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<sup>th</sup> attempted college credit.

### **Academic Intervention and Monitoring System (AIMS)**

AIMS 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. AIMS exists to help these students achieve academic success, remain in school, and develop a greater sense of independence and self-esteem. The AIMS program offers full-time, first semester students at Bergen the following advantages:

- Special orientation and registration session.
- Preselected program of courses and services, including Basic Mathematics (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 AIMS program is a joint effort supported by the Division of Arts and Humanities; the Division of Business, Mathematics, and Social Sciences; the Division of Student Services; and the Office of the Academic Vice President. To discuss the advantages of the AIMS program in further detail, please contact the AIMS program coordinator, Room A-333D, at 201-493-3605.

### **American Language Program (ALP)**

International students for whom English is not their first language and who are 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 the American Language Program (ALP) courses at Bergen Community College.

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

Courses	Credits
American Language Foundations ALP-004, 005, 006, 007, and SPE-009	15
American Language Level I ALP-041, 042, 043, 044, and SPE-001	15
American Language Level II ALP-051, 052, 053, 054, and SPE-002	15
American Language Level III ALP-061, 062, 063, 064, and SPE-003	15

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 see an international student counselor for advisement on proper course selection. Students placed in the American Language Program cannot take college-level courses until they have successfully completed all levels of the program as well as having passed required exit examinations. Also, 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 between 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. While 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 201-447-7171 or visit the Center located in Room 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 part-time 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, part-time, 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. FWS students may then earn up to the award specified by the Financial Aid 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 Office will notify all eligible students of FWS 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 Hall, Monday 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

Honors sections of General Education courses are offered during the fall, spring, and summer semesters. The Honors Program offers courses in English, Philosophy and Religion, History, the Social Sciences, Business, Science, and Math. (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 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 also have access to an honors advisor each semester, may attend transfer seminars specifically designed for those honors students, and have their honors courses designated as such on transcripts. Participation in the Honors Program also enhances students' prospects for transferring to desirable universities, often with scholarships. For further information, please contact the Director of the College Honors Program at 201-493-3550.

## Study Abroad

Through Bergen Community College's membership in CCIS (College 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, Mexico, 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 cultural 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/study\\_abroad](http://www.bergen.edu/study_abroad).

## 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 Management, Web Design and Development, Cisco Certified Network Associate, Macromedia and Desktop Publishing, Project Management, eBay Entrepreneurship, Finance, Post Baccalaureate Alternate Route Teacher Certification, Management Development, New Jersey Real Estate Sales and Broker's courses, Drug and Alcohol Counseling, Medical and Radiology Billing, Certified Nursing Assistant, Hemodialysis, American Sign Language, Alternative Healing 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. Our 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 Language. Additionally, Continuing Education partners with the New 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 Monday 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. Membership 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 Management (NJSBDC) 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-on-one basis by SBDC professional staff and private consultants.

Areas of counseling include, but are not limited to:

- Accounting/Recordkeeping
- Advertising
- Business Planning
- Cash Flow Management
- Employment Issues
- Financial Management
- Government Procurement
- International Trade
- Marketing Strategies
- Start-up/Acquisition 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. Consult the Continuing Education catalog for more information.

### **Philip Ciarco Jr. Learning Center**

The Philip Ciarco Jr. Learning Center, located at 355 Main Street in Hackensack, was founded by the College 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 Center 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/CiarcoCenter>.

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

- Adult Basic Skills
- Community Counseling Services
- NJ Public Information Job Search Network 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 New Jersey Programs
- On-site Corporate Training
- On-site Workforce Development
- Cisco Networking Academy
- Small Business Development Center
- Official State of New 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
- Academic 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 Maturity 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 New 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.



# Registration



*Bergen Community College 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 Center, Room 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 be invited 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 occurrence, if applicable.

## Web Registration via WebAdvisor

WebAdvisor is a Web interface that allows students to register online and access their records at the College. WebAdvisor accounts are available for all students enrolled in credit programs. Most 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 WebAdvisor 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 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.

## **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 Office 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 New Jersey resident who is currently an active member of the New Jersey National 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 15 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 regularly-scheduled courses and receive up to 15 credits per semester tuition-free as per the "Higher 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 degree for dependent children or surviving spouses of persons who were New 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 New 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 New 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 Memorial Scholarship Program – administered by the New Jersey Higher Education Student Assistance 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 New 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 New Jersey in order to be eligible to receive a Law Enforcement Officer Memorial Scholarship. Students who already possess a Baccalaureate Degree 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**

New Jersey residents who are active members of a volunteer fire company or volunteer first aid or rescue squad or association in good standing and the dependent children and spouse of a volunteer shall be allowed to enroll on a tuition free-basis 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 Office 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.

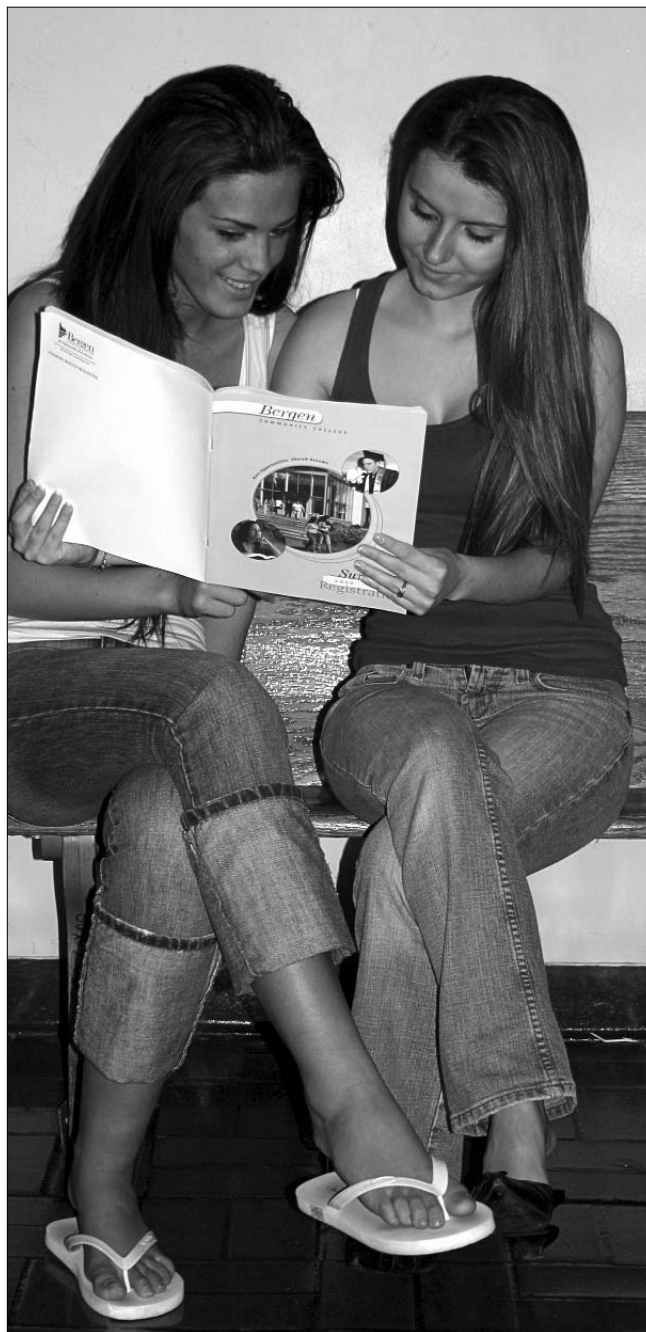
Tuition-free enrollment is permitted only to the extent that federal or state financial aid does not cover tuition cost; therefore, you must file the Free Application for Federal Student Aid (FAFSA) by June 1 for the fall semester waiver; October 1 for the spring semester waiver; and April 1 for the 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 Community 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, MasterCard, 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 Menu or Make a Payment. Students may also take advantage of the College's deferred payment plan by calling Academic Management Services (AMS) 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

Reinstatement Fee (Nonrefundable)	\$25.00
Tuition Deposit for Nursing and Allied Health Admitted Students (Nonrefundable and nontransferable)	\$100.00

A nonrefundable tuition deposit is required of full-time and part-time first-year Nursing and Allied Health 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 May 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 \$50.00 to \$250.00. Schedules and bills will indicate which courses have an additional cost factor.

The tuition and fees are subject to change.

**Special Registration Fee:** \$10.00 per student per semester.

	Tuition	Per-Credit Rate	
		General Fee	Technology Fee
Bergen County Resident	\$93.70	\$16.00	\$7.00
Out-of-County Resident	\$193.00	\$16.00	\$7.00
Out-of-State Resident	\$203.00	\$16.00	\$7.00
Students on Non-Immigrant Visas	\$193.00	\$16.00	\$7.00

**Distance Learning and NJVCC Online Course Fee.** The New Jersey Virtual Community College online course fee will be \$96 per credit, including tuition, general, and technology fees.

**Non-Credit Tuition.** The maximum non-credit tuition charge for state fundable courses will be \$9.00 per contact hour. The maximum laboratory fees for these courses are \$13.50 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 \$30.00

Any 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 College 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 29 for the Fall semester and January 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 29, 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 Health Services Office, Room HS-100.

## RESIDENCY REQUIREMENTS

According to regulations of the State of New Jersey (N.J.A.C. 9A:5), tuition charges are determined by the student's permanent place of residency, or domicile. 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 New 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:

One 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, One 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 New Jersey 1040 Income Tax form.

OR

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

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

Online 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. Name, 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

Out-of-county residents who are enrolled in a program or course not offered by their home county community college may pay in-county rates if they present a completed out-of-county chargeback form with their tuition payment. The forms and instructions 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 WebAdvisor or in person (see below). Refunds are based on the date that the drop or withdrawal form was filed. See the Refunds 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.

- Failure to 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, My Class Schedule.
- The liability for tuition and fees is based on the refund schedule and the date that the withdrawal request was submitted.

### Withdrawal Offices

Student Status	Place	Room
AIMS students	Testing Office	L-121
EOF students	EOF Office	A-126
International students on F-1 student visas	Counseling Center	A-118
Allied Health & Nursing students withdrawing from one or more courses	Counseling Center	A-118
Full-time degree-seeking students withdrawing from all courses	Counseling Center	A-118
OSS students	OSS Office	S-131
All other students	Office of Admissions and Registration	A-129
	WebAdvisor	<a href="http://go.bergen.edu">http://go.bergen.edu</a>

## 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 opening day of the semester or session*	100%	100%
Withdrawal before the start of the second week of classes*	100%	50%
Withdrawal before the start of the third week of classes*	50%	25%
Withdrawal before the start of the fourth week of classes*	25%	0%
Withdrawal after the end of the fourth week of classes*	0%	0%

\* 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. 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 otherwise. 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 allowed 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 Allied Health Admitted Students	\$ 100.00
Reinstatement Fee	\$ 25.00
General Fee (per credit)	\$16.00
Technology Fee (per credit)	\$ 7.00
Special Registration Fee (per semester)	\$ 10.00

### 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 re-enroll in the course 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.

### 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 to the school.

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 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.
- If the day the student withdrew occurs after the student has completed 60% of the payment period, the percentage earned is 100%.

The percentage and amount not earned is the complement of the percentage of Student Financial Aid Program assistance earned multiplied by the total amount of Student Financial Aid Program assistance that was disbursed (and that could have been disbursed) to the student, or on the student's behalf, for the payment period, as of the day the student withdrew.

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.

## 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 students and prospective students with financial need through the Financial Aid Office. The Office is located in Room A-123 and the telephone number is 201-447-7148.

## Types of Financial Aid

**Grants and Scholarships** are gift aid. They do not have to be repaid and are the most desirable form of aid. Call the Vice President for Student Services, at 201-447-7491, for information about scholarships available to Bergen Community College students.

**Loans** are money given to a student that must be repaid.

**Work/Study** is money paid to a student for work performed.

**Financial Aid programs available for eligible students include:**

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

## NJ STARS

NJ STARS (The New 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 New Jersey community college. Students must first apply for all need-based federal (FAFSA) and merit-based state financial aid grants. NJ STARS will cover the remaining balance of tuition and fees.

To qualify for an NJ STAR Scholarship, students must be U.S. citizens or have permanent resident status in the State of New Jersey. Student must also have attended their full senior year at a New Jersey high school and have graduated in the top 20 percent of their class.

Other requirements are:

- NJ STARS students must take at least 12 college-level credits each semester and can take up to 15 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 New 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.

More information about NJ STARS is available by calling 1-800-334-NJCC, by e-mailing [info@njccc.org](mailto:info@njccc.org), or on the Bergen Web site at <http://www.bergen.edu/NJSTARS>.



## 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 (FAFSA). This is the application document used for determining eligibility for both federal and state financial aid programs. Be sure to include Bergen Community College's Title IV code (004736) in the section "What Colleges Do You Plan To Attend?" 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 Numbers, allowing the process to be completed totally online. If students or their parents do not have a PIN Number, 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. Meet 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. 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. Most 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:

<i>Full Time</i>	12 credits or more
<i>Three Quarter Time</i>	9-11 credits
<i>Half Time</i>	6-8 credits
<i>Less than Half Time</i>	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**	May 1
Fall Applicants, New Students	July 1
Spring Only Applicants	November 15

\* For loan recipients, enrollment status is verified before dispersment of loan funds.

\*\* For Continuing Students applying for State of New 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 reviewed by a financial aid counselor. An award 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.

Whether 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.

- Semester Completion Requirement for students in a Degree program:

<i>Total number of credits attempted</i>	<i>Completion requirement</i>
1 – 28 credits	60%
29 or more credits	70%

- Semester Completion Requirements for students in a Certificate program:

<i>Total number of credits attempted</i>	<i>Completion requirement</i>
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 19<sup>th</sup> day 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. Note 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.

<i>Cumulative GPA credits</i>	<i>GPA required</i>
12 – 23 credits	1.70
24 – 35 credits	1.80
36 – 47 credits	1.90
48 or more credits	2.00

- **Maximum 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 x the number of required remedial credits).

Hours attempted are the sum of all Bergen Community College 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 each semester 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 \$1,500 can be claimed for each of the first two years of college or vocational school for each eligible student in a family. The student must be enrolled at least 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 \$1,000 of payments for qualified tuition and fees and 50% of the second \$1,000. The goal of Hope is to make it possible for all Americans to afford the cost of the first two years of a college education. In most states, the Hope credit will cover the tuition and fees of a community college education. There is no limit on the number of eligible students who can claim a Hope credit in a household in any given year.

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



# Academic Affairs



*The Office of Admissions and Registration of Bergen Community College 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 Window, 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. Documents requiring the College Seal cannot be returned to the student; they must be mailed directly to the requesting agency or organization.

## **GRADING**

Students are responsible for their 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 WebAdvisor at <http://go.bergen.edu>. Students may also request an academic report reflecting their final grades from the Office 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 "INC" grade unless it is requested by the student and the conditions for resolving the incomplete are agreed upon in a contract, with the exception of missing the final exam due to an emergency. All grades of "INC" that are not resolved by the deadline in the academic calendar will be converted to grades of "F."

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

## Repeating of Courses

1. A student shall have the option to repeat once any course in which a grade of 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. Note: A student who does not successfully complete a course after two attempts may be unable to complete a degree program. Permission to repeat is not automatic.

3. It is understood that a student who earns a “D” grade in a given course generally shall be able to pursue the next higher course. Exceptions should be noted for all Allied Health courses and for selected courses as noted in individual course descriptions.

4. A student may not repeat a course in which a grade of “A,” “CBE” (credit by exam), “TR” (transfer credit), or “INC” (incomplete) was received.

## 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 Academic Vice President. The student should attach copies of all previous correspondence regarding the appeal and copies of supporting documentation.

7. The Academic Vice President will consult all parties involved in the appeal process and may choose to meet with the student. Grade appeals may also take several weeks to resolve at this stage.

8. The Academic Vice President will notify the student in writing of the results of the appeal. Every effort will be made to notify the student within one month.

## Auditing Classes

Students who wish to take courses with the understanding that they will not receive 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 towards 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 Attempted Credits	Included in Earned Credits	Included in Cumulative Average
A	= 4.0	Excellent	Yes	Yes	Yes
B+	= 3.5	Very Good	Yes	Yes	Yes
B	= 3.0	Good	Yes	Yes	Yes
C+	= 2.5	Above Average	Yes	Yes	Yes
C	= 2.0	Average	Yes	Yes	Yes
D	= 1.0	Below Average	Yes	Yes	Yes
E	= 0.0	Unofficial Withdrawal	Yes	No	Yes
INC	= None	Incomplete	Yes	No	No
F	= 0.0	Course must be repeated to earn credit	Yes	No	Yes

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

### THE FOLLOWING GRADES ARE ADMINISTRATIVELY ASSIGNED, AND ARE NOT ASSIGNED BY INSTRUCTORS:

Grade	Point Value	Description	Included in Attempted Credits	Included in Earned Credits	Included in Cumulative Average
AU	= None	Auditor	Yes	No	No
TR	= None	Transfer credit from another institution	No	Yes	No
W	= None	Official withdrawal	Yes	No	No
CBE	= None	Credit by examination equivalent to earned grade of "C" or better	No	Yes	No

Grades of A, INC, TR, and CBE cannot be repeated. Grades of B, C, D, E, AU, and F may be repeated only once. The higher grade is retained and the lower grade is marked "R" and is not figured in the 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, E = 0 points, 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	Point value of grade		Credits for Course	=	Total Quality Points
<b>Semester I</b>						
U.S. History	C	2	×	3	=	6
Foundations of Phys. Ed.	B	3	×	2	=	6
Speech Communication	A	4	×	3	=	12
Statistics	C	2	×	3	=	6
English Composition I	D	1	×	3	=	3
				14	Total GPA Credits	33
						Total Quality Points

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.

<b>Semester II</b>						
English Composition	F	0	5	3	=	0
U.S. History II	B	3	5	3	=	9
General Biology I	A	4	5	4	=	16
Music Appreciation	C	2	5	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 Quality Points" (33) to the "Semester II Total Quality Points" (31). The resulting figure is called the "Cumulative Quality Points." In our example, the Cumulative Quality Points add up to "64."

Add the Semester I Total 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 wishing further assistance in understanding their grade point average should contact the Academic Advising Center in Room 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 "INC" grades at the time of compilation are ineligible.)

### Honors List

The Honors List is official recognition by the faculty of outstanding academic achievement during the course of one semester. Any degree-seeking student who has attained a scholastic average of 3.5 or better (minimum 12 credits) qualifies for this honor. The Honors List is compiled each semester several weeks after grades are processed. (Students with unresolved "INC" grades at the time of compilation are ineligible.)

### Chi Alpha Epsilon

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

#### A. Eligible Degree Programs

Students in the following degree programs are eligible for continued and new membership: A.A. Degree, A.S. Degree, A.A.S. Degree.

#### B. Membership Requirements

1. **New Members.** Qualified students are selected from those who are registered for the fall or spring semesters. Membership is not open during the summer session. **Students must be invited to join by the College President. Students will receive a letter in the mail if they qualify.**

2. **Continued Membership.** Qualified students will retain membership as long as they are actively registered in the fall and spring semester between induction and graduation. PTK members are not required to attend summer sessions.

#### C. Grade Point Average

1. **New Members.** Students must achieve the following cumulative GPA based on degree credits attempted or earned:

Credits Category	Qualifying GPA*	Credits Attempted**	Credits 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 non-degree 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 "Degree Credit Earned" category. Each student must be assessed on a case-by-case basis and must make an appointment with the Phi Theta Kappa advisor or co-advisor.

6. **Leave of Absence.** Students who take a leave of absence must notify the Phi Theta Kappa advisor in writing on their return to reactivate member status.

#### D. The Society

Alpha Epsilon Phi is an active society on campus. To maintain 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 Kappa by a member is approximately 15 hours.

## The National Collegiate Foreign Language Honor Society

### Alpha Mu Gamma – Nu Pi

Alpha Mu Gamma – Nu Pi is a nationally recognized, collegiate, foreign 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 foreign language study (including ESL) in college. Students may be admitted at any stage in their college careers. Nu Pi, Bergen Community College's chapter, was chartered in the spring semester of 2005.

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 foreign language. If students are natives of a non-English speaking country, then the language may be college level English or English as a Second Language (ESL). Membership dues are also required. For additional information, please contact the Academic Coordinator, World Languages and Cultures.

## DEGREE REQUIREMENTS

Bergen Community College offers degree programs leading to Associate in Arts (A.A.), Associate 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, Mathematics, and/or Elementary Algebra 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 Degree (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 Office of Admissions and Registration window, Room A-129.

Degrees are conferred in accordance with the calendar shown:

<b>If completing requirements by:</b>	<b>Must submit application by:</b>
December (Fall Semester)	End of August
May (Spring Semester)	End of November
August (Summer I/Summer II)	End of May

If, after filing the application, a candidate is unable to complete the degree requirements by the date indicated on the student's original application, the student should notify the Office of 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 May (please check the academic calendar for exact date). Diplomas will be withheld from all students who have outstanding holds and/or violations.

Students wishing to participate in the May Commencement ceremony must notify the Director of Student Life and Judicial Affairs by March 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 1600 to 2400 minutes of laboratory experience during a semester or session. (Certain clinical experiences, cooperative education, or courses delivered through non-traditional means may be assigned credit by different formulas).

## Course Load and Restrictions

**Full-Time Students.** A full-time program consists of 12 to 18 credit hours of course work per semester.

**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

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 College 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

### E. Commits plagiarism

Plagiarism is a form of academic dishonesty and may be a violation 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

*Note: An instructor may establish other guidelines regarding academic integrity consistent with the college policy.*

### Consequences of Violations of Academic Integrity

#### A. Instructor's Sanctions for a Violation

The faculty member 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

In all cases, the instructor shall notify the Vice President of Student Services of the violation and the penalty imposed. The student has the right to appeal the decision of the instructor to the appropriate Department Head.

#### B. Institutional Sanctions for Violations

When a violation of academic integrity has been reported regarding a student, the Vice President of Student Services may impose disciplinary penalties beyond those imposed by the course instructor which may include suspension or dismissal from the College. The student shall have the right to a hearing before the Vice President of Student Services or a designated Student Judicial Affairs committee. Judicial procedures governing violations of academic integrity are contained in the Student Handbook.

(Parts of "Academic Integrity" were adapted with permission from Mercer Community College)

### 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 GPA Credits	GPA
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 Office 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 Office 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. Notification 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 Academic Standing in accordance with the posted college deadline. The Committee on Academic Standing shall review the reinstatement application and render a decision or delegate the authority for reinstatement to Counseling faculty. **There is a \$25 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

Academic 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 Academic Forgiveness Policy at Bergen Community College contains two options:

**Option I - Academic Forgiveness based upon past academic performance**

**Option II - Academic Forgiveness based upon change of curriculum**

A student may request Academic Forgiveness once under the academic performance option and once under the change of curriculum option. If a student requests forgiveness for a course or courses in which he or she has earned a grade of "D," the credits earned in any such course or courses will be removed from the total credits earned, and the student will receive no credit for the course.

### Option I: Past Performance

After 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. However, the courses will remain on the student's official transcript designated with a special code for Academic Forgiveness.

### Option II: Change of Curriculum

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. However, the courses will remain on the student's official transcript designated with a special code for Academic Forgiveness.

## Committee on Academic Standing

The Committee on Academic Standing is comprised of faculty members from each of the divisions within the College and student government representatives. It is chaired by the Vice President of the Division of Student Services. The committee reviews all reinstatement applications and special appeals and renders decisions. Appeals to the committee will be considered only if initiated within a two year period of the end of the semester in which the appeal issue occurred. 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 Academic 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 Acceptable Use 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. Analyzing 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 Colleague 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. Any 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 or when the student is no longer enrolled. The College may choose to extend e-mail privileges to adjuncts and students 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 WebAdvisor 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. In cases of emergency, the Office of the Vice President of Technology, Information Services, and Institutional Effectiveness may be contacted. 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 Colleague 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 e-mail, 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 the 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.
- Reading 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.
- Retain 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. Messages 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." Messages sent unnecessarily to a long list of recipients lowers 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. Messages 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

Account log-ons and passwords, including e-mail, are issued to individuals for their sole use and are non-transferable. Owners are responsible for all usage of their assigned accounts, log-ons, 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 College expects to add additional features to WebAdvisor in the future.

WebAdvisor 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 WebAdvisor to register for classes. Students may, however, use WebAdvisor to view their class schedules and other functions). New 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>, selecting the "WebAdvisor for Students" menu, 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 Course 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://www.bergen.edu/facultywebdirectory>.

When 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 Organization Home 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 home 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.



*One of the goals of Bergen Community College is to provide a comprehensive college experience—one that extends beyond the classroom. Student life is enhanced and enriched through a wealth of extracurricular offerings that reflect the interests and strengths of both the students and faculty advisors. All Bergen students are encouraged to become involved in the many activities and organizations, and to develop their leadership skills through participation in Leadership Weekend and Diversity Weekend.*



One of the best ways for students to achieve success and happiness at Bergen Community College is to learn how to best manage their time. There should be a good balance of giving and receiving in a student's life at Bergen. This balance can be shown as a simple equation:

**What a student gets out = what a student puts in!**

This equation works equally well in the classroom, in social life and in extracurricular activities. The Office 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 Office 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 Month, and Black History Month. Students wishing to participate on the SAB should contact the Student Activities Board Office at 201-612-5296 or stop by Room A-110

## **CLUBS**

Note: 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 awareness of the college campus regarding the language and culture of the Deaf and Hard of Hearing communities.

### **Anime Club**

Anime 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.

### **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 Amateur Astronomers Association 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**

Members 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 Dance Intensive.

### **Dental Hygiene Club**

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

### **Early Childhood Education Club**

The 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. Members 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 Horticulture Club. The club plans and executes a variety of floral displays and garden designs. Members make visits to botanical gardens to explore the multitude of flora and fauna that exist in nature.

## **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 Korean 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 Association also organizes parties and bake sales to fund some of its activities. All students are invited to join!

## **Media Club**

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

## **Music Interactive Club**

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

## **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 MSA invites all members of the college community to participate.

## **Native American Heritage Club**

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

## **Nursing Student Association**

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

## **Paralegal/Legal Nurse Consultant Council**

The Paralegal/Legal Nurse Consultant Council is open to any students studying or interested in the Legal Assistant 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 anti-tobacco 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 Out 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. No journalism experience is necessary and all students are encouraged to join the staff of the newspaper.

### **Veterans Club**

Comprised primarily of veterans, reservists, and members of the National Guard, the Veterans Club is involved in a series of activities focusing on the observance of holidays which commemorate American veterans. Members have visited the Vietnam Memorial in Washington, 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 Northern 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 Network advances the mission of the College by promoting ideas, leadership, and personal relationships among alumni, current students, faculty, staff, and administration. The Alumni Network links Bergen graduates to the past, present, and future for College benefits and services.

**The Network 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 Network at the College, c/o Scoskie Hall, 201-447-7117 or by e-mail at AlumniNetwork@Bergen.edu.



## ATHLETICS

At Bergen Community College we believe that athletics is an integral part of the educational experience. The Athletics Department 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 College Bulldogs (colors – purple, white and orange) regularly place athletes on All-American, All-Region, and All-Conference 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 Athletics 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 student-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-Athlete 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 National 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. More information is available from the Athletic Office 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

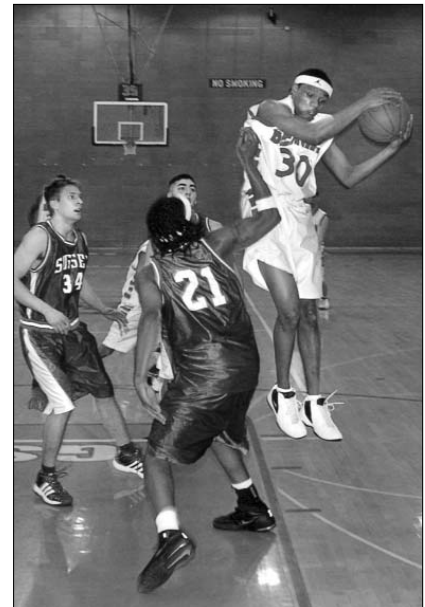
Men's Soccer  
Women's Soccer  
Cross Country  
(Men & Women)  
Women's Volleyball

### Winter Sports

Men's Basketball  
Women's Basketball  
Wrestling

### Spring Sports

Baseball  
Softball  
Track and Field  
(Men & Women)  
Tennis  
Golf



**Intramural sports** are available to those students who enjoy competition with a less rigorous schedule. The Athletic Department, which sponsors intramurals, provides activities such as three-man basketball, four on four soccer, tennis, chess, volleyball, ping pong, and others depending on student interest. The 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.



## **RULES AND REGULATIONS GOVERNING CONDUCT**

At the beginning of the academic year each student is expected to obtain a copy of the Student Handbook. 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 Handbook.

### **Code of Student Conduct**

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

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. Academic dishonesty;
6. The unauthorized use and the abuse of alcohol and the illegal use and the abuse of drugs are specific violations of student conduct. These rules apply when attending college functions either on campus or off campus, or functions of college chartered organizations conducted either on campus or off campus.

### **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 Moses Family Meeting 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 to the document "Bergen Community College Student Program to Prevent Illicit Use of Drugs and Abuse of Alcohol," available through the offices of the Executive Vice President, Vice President of Student Services, Health Services, Counseling, and the Department of Public Safety.

### **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 students, special interests of students are served by many clubs that are oriented to particular student groups and academic majors.

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

1. All clubs and other student organizations must be chartered by the Student Senate.
2. The Student Senate does not charter a club or other organization unless:
  - a. There is ample evidence that it has a meaningful place in student life;

- b. It will observe College rules and regulations as well as those adopted by the Student Senate
  - c. It can maintain an active membership;
  - d. It does not use the College name to own, rent, borrow or in any other way permanently or temporarily acquire off-campus facilities for housing, meetings, social events, and other causes. However, in certain cases, special events may be conducted off-campus with the written consent of the 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 Student Life Office;
  - j. Each club or other student organization to be considered must register each semester by submitting a list bearing the names, home addresses, and telephone numbers of its officers to the Student Life Office.
3. College facilities will only be granted to an organization that has correctly registered, whose treasurer’s books have been audited and approved, whose debts have been cleared, and whose Constitution is on file. A policies and procedures manual is available through the Student Life Office.

#### **Financial responsibilities**

- The president of the organization and the chairman of the function are responsible for the financial obligations involved. If tickets are printed, they must be serially numbered and a careful count kept of the number of tickets sold and the number given out as complimentary tickets.
- All contracts must be signed by the Vice President of Student Services, or his designee. Copies of the contract must be filed in the Student Life Office.
- 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 Revenue taxes or any other financial matter.
- A financial report must be completed and filed with the Student Life Office 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.

#### **Chaperones**

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

##### **On Campus Events**

- To supervise the activity and assure adherence to college policies 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 Campus Events**

- To abide by the duties listed above.
- Must 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 Office of Student Life needs to be provided with all information regarding the trip. This includes transportation, hotel and conference information.
- The chaperone must 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.

The Chaperone must be at each event from beginning to the end.

#### **Guest Speaker Program Policy**

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

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

1. That they are not designed to and do not interfere with the daily operations of Bergen Community College;
2. That they are not designed to and do not cause personal injury to individuals or damage to property;
3. That they are limited to exterior areas (sidewalks and lawns); no activity will be permitted inside college buildings or in doorways leading to buildings. There shall be no interference with building or campus ingress and egress. 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., picketing, distribution of leaflets, chanting) and names of three individuals responsible for maintaining reasonable order.

### **Dress Regulations**

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

### **Eating and Drinking**

Eating or drinking in classrooms, lecture rooms, laboratories, gymnasium, library, 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 Health 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, WOR/710, 1010 WINS, WVNJ 1160, and Cablevision/News 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.1010WINS.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 Research and Planning Office, Student Center, Library, Financial Aid, the Office of Admissions and Registration or the Athletic Department.

### **Family Educational Rights & Privacy Act of 1974**

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 educational records within 45 days of the day the College receives a request for access.

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

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

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

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

Another important exception concerns the concept of "Directory Information." Information specified as "Directory Information" can be released without the consent of the student unless the student specifically requests that such information be withheld. This may be done by notifying the Office of Admissions and Registration, Room A-129.

Please note that Bergen Community College does not publish a student directory. This information is released only in connection with state and federal reporting and in publications such as the Commencement Program or Sports programs and news releases on graduates and student achievements. It is the policy of the College's Office of Public Relations to request signed authorizations from students who are the subject of news releases.

The College classifies the following information as "Directory Information:" name; address; date of birth; dates of attendance; enrollment status (full-time, part-time); degrees, honors and awards received; field of study; and participation in officially recognized activities and sports.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Bergen Community College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office  
U. S. Department of Education  
400 Independence Avenue, SW  
Washington, D.C. 20202-4605

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

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

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

### **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.

### **Graduation/Transfer Rates**

In compliance with the Higher Education Amendments of 1998, Bergen Community College collects information on graduation and transfer of its students. Copies of a report on graduation and transfer rates may be reviewed/obtained in the Research and Planning Office, the Library, 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 Americans with Disabilities Act of 1990 (ADA). Section 504 and ADA state, in part, that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity."

Complaints should be addressed to the Manager of Training and Compliance (Office of the Executive Vice President, Room A-330, 201-612-5331) who has been designated to coordinate section 504/ADA 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 Manager of Training and Compliance if such an investigation is warranted. Investigations should be thorough and should 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 Manager 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/ADA 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.
- Other 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. Noise created by electronic devices cannot and will not be tolerated. Students who disturb the normal operation of the College may be subject to disciplinary action.

### **Off-Campus Trips**

An officially registered college club or organization that wishes to sponsor an off-campus trip must file 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.

### **Policy for On-Campus Activity by Non-College 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 is prohibited.

### **Policy and Procedures for Displaying Flags on Campus**

The main campus flag pole is located at the entrance of Bergen (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 New 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 Native American 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.

## 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 is a violation of Title VII of the Civil Rights Acts of 1964 and 1990, as amended, Title IX of the Education Amendments of 1972, the New Jersey Law Against Discrimination, established case law and State policies. The policy applies to all persons: administrators, faculty, staff, students, guests and visitors are all covered.

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

- A. For the purposes of this policy, Sexual Harassment is defined as unwelcome sexual advances or sexually explicit comments, requests for sexual favors, and/or other verbal or physical conduct based on the gender of the affected individual when:
1. Submission to such conduct is made either explicitly or implicitly a term or condition of employment or academic achievement; or
  2. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting that individual; or
  3. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an unreasonably intimidating, hostile or offensive working or educational environment. Hostile environment sexual harassment includes, but is not limited to:
    - a. Generalized gender-based remarks and behavior;
    - b. Inappropriate, unwanted, offensive physical or verbal sexual advances and comments;
    - c. Solicitation of sexual activity or other sex-linked behavior by promise of reward;
    - d. Coercion of sexual activity by threat of punishment;
    - e. Gross sexual imposition such as touching, fondling, grabbing or assault.
- B. An individual need not be a personal target of harassment to file a complaint. The individual instead may show that other individuals were sexually harassed and that this harassment created a hostile or intimidating work or academic environment.
- C. Conduct under 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 Bergen Community College's Policy Prohibiting Sexual Harassment and must be reported to the Manager of Training and Compliance, Room A-330, telephone number 201-612-5331. Unwelcome sexual conduct by another student, student-on-student harassment, that disrupts a 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, including the Rules and Regulations found in this Catalog, not the Complaint Process for resolving Sexual Harassment 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 university community in achieving these ends.

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

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

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

- On the campus of any public or independent institution of higher education in the state of New Jersey, and
- Where the victim or alleged perpetrator is a student at that institution, and/or when the victim is a student involved in an 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.
  - Report 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 medical, counseling, mental health, and student services for victims of sexual assault whether or not the crime is formally reported to campus or civil authorities.
- To have access to campus counseling under the same terms and conditions as apply to other students in their institution seeking such counseling.
- To be informed of and assisted in exercising:
  - 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 govern-

ing board to examine resources dedicated to services required and to make appropriate requests to increase or reallocate resources where necessary to ensure implementation.

- Each campus shall make every reasonable effort to ensure that every student at that institution receives a copy of this document.
- Nothing in this act or in any “Campus Assault Victim’s Bill of Rights” developed in accordance with the provisions of this act, shall be construed to preclude or in any way restrict any public or independent institution of higher education in the State from reporting any suspected crime or offense to the appropriate law enforcement authorities.

## Smoking Policy

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 May 1 to August 31.

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

## 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 Motor Vehicle Regulation booklet.

# Academic & Student Facilities



*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 2nd level of the Pitkin Education Center. 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 Reference Network 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 Bergen County, New Jersey, and the nation are available to Bergen Community College students through interlibrary loan.

### Media Services

Library Media 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 self-instruction, review, enrichment, and to use equipment for classroom presentations.

### Other Services

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

Adaptive 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 for current information.



## **INSTRUCTIONAL FACILITIES AND SERVICES**

### **Academic Advising Center**

The Academic Advising 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, located in the Office of Specialized Services (Room S-131), provides adaptive technology to aid students who are learning disabled, visually impaired, hard of hearing or deaf. The laboratory contains electronic readers, print enlargers and Braille printers, and special laptop computers that can be used in the classroom. Scribes, note takers, tutors, alternative testing arrangements, counseling, and support groups are available. To take advantage of these services, the student needs to indicate that he or she has a disability on the application to the College. Documentation needs to be provided to the Office of Specialized Services at 201-612-5270 or 201-447-7845 (TTY). Additional equipment is available in the library and Technology Education Center.

### **Allied Health and Nursing Facilities**

Each Health 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 Nursing Center.

### **Anna Maria Ciccone Theatre**

The Anna Maria Ciccone Theatre accommodates an audience of 300 and serves a wide range of performing arts. Most 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.

While 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.

### **Art Facilities**

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

### **Center for Collegiate Deaf Education**

The New Jersey Commission on Higher Education has designated Bergen Community College as one of two regional centers for students who are deaf or hard of hearing. Housed within the Office of Specialized Services, the center provides access through the provision of 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 Hall is a unique laboratory school, licensed by the Division of Youth and Family Services, to provide care for children 2 1/2 to 6 years of age. The center is staffed by teachers certified in Early Childhood Education and student interns enrolled in the Associate Degree Program in Early Childhood Education. A comprehensive renovation in 1997 expanded and upgraded the facility by adding three new classrooms, computers, and a one-way observation room so that students can view classroom operations.

### **Computer Facilities**

Bergen Community College is committed to providing all students with appropriate access to modern technology. All labs are equipped with state-of-the-art computers loaded with the Microsoft Office Suite and curriculum specific software, as appropriate.

Many students choose majors or courses where computer hardware or software is the topic being studied. Many more students make use of computers in learning topics like Math, English, World Languages, Visual Arts, Engineering, Drafting, Culinary Arts, Communication, Nursing, and Sociology. Multimedia software and the Internet provide faculty and students with new ways to interact and to better understand many concepts and real-world experiences, complementing traditional teaching methods.

Bergen has over 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 96 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.

Many 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. Every Bergen student is eligible to obtain and use an electronic mail account. 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 available to students throughout the Technology Education Center, the library and at other locations on campus providing the opportunity to study outdoors in pleasant weather and still stay connected.

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

### **Computer Graphics Lab**

The Computer Graphics Lab in Room E-189 is equipped with 25 state-of-the-art Macintosh workstations for instruction in Photoshop, Illustrator, QuarkXPress, and Painter. Additional Macs are integrated into the Room E-175 graphic design studio.

### **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 television program, "On-Campus," is produced in the EBC.

### **The Emil Buehler Trust Observatory**

The Emil Buehler Trust Observatory, 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**

In addition to its computer graphics, computer animation, and photography labs, the Art Program utilizes the Room E-181 Fine Arts Studio for teaching courses in drawing, life drawing, and painting.

### **Greenhouse**

A new 2500-square foot Greenhouse Complex in Ender Hall 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 Hotel/Restaurant 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/Restaurant/Hospitality 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 ice-making machine.

### **Video Conference Centers**

The interactive classrooms in the Pitkin Education Center 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 classes to high school and college students.

### **Laboratory Theatre**

The Laboratory Theatre, located in Ender Hall, 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 Math Center offers tutorial services for students enrolled in Developmental Mathematics courses. Students who need assistance with homework or with preparation for developmental math tests may use the services of the Developmental Math Center. Many students find it helpful to have a math faculty member available to answer questions which may arise. The Center is the primary location for Developmental Math retests. The Developmental Math Center is located in Rooms L-127 and L-128. The Center's hours are posted on its window.

### **Multimedia Lab**

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

### **Online Writing Lab (OWL)**

The Bergen Online 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/OWL>

## **Photography Studio and Darkroom**

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

## **Piano Laboratories**

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

## **Stryker Manufacturing Lab**

Located in the Technology Education Center, the Stryker Manufacturing 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 New 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**

The two-story, 50,000-square-foot Technology Education Center features the state-of-the-art Moses Family Meeting 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 Mathematics Basic Skills Tests; the levels of English proficiency test; challenge, proficiency, and credit-by-examination tests in a number of subject areas; instructional make-up tests; online course tests; and special accommodation tests (see page 16 for details) Please note that developmental math retests take place in L-127/L-128.

## **The Henry and Edith Cerullo Learning Assistance Center**

The Tutoring Center, English Language Resource Center, and Writing Center are collectively known as the Henry 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 Hall, 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.

SMARTHINKING, an online tutoring program, is available free for all Bergen Community College students. Students apply for a SMARTHINKING account by submitting an online application form at <http://www.bergen.edu/smarthinking> or by filling out a paper application at the Learning Assistance Center.

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 college-level courses. The Center also offers computer-assisted instruction in grammar, study skills, and writing. Students receive assistance in written assignments, including research papers, in all content areas. Additionally, faculty can receive assistance in developing writing assignments for their classes or 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 201-447-7174.

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 \$20 charge for any check returned to the bookstore by the bank. Visa, MasterCard, American 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 Notes, dissection kits, calculators, and office supplies. Refunds on purchases by check will be given after ten business days allowing 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

Mon-Thurs	9:00 a.m.-8:00 p.m.
Mon-Thurs( <i>no classes in session</i> )	9:00 a.m.-5:00 p.m.
Friday	9:00 a.m.-3:00 p.m.
Friday ( <i>if the building is closed</i> )	CLOSED

### Bookstore Summer Hours

Mon-Thurs ( <i>Summer Sessions</i> )	9:00 a.m.-7:00 p.m.
Mon-Thurs ( <i>no classes in session</i> )	9:00 a.m.-5:00 p.m.
Friday ( <i>if the building is open</i> )	9:00 a.m.-3:00 p.m.
Friday ( <i>if the building is closed</i> )	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 Hall, is available to Bergen students and employees as well as residents of Bergen County. The center is designed for children 2 1/2 to 6 years of age and is open from 7:45 a.m. to 5:30 p.m. daily. It is licensed by the State of New Jersey and staffed by full-time teachers and interns from the College's Early Childhood Education Program. Children may be enrolled on a full-time, part-time, or drop-in basis.

### Counseling Center

The Counseling Center (Pitkin Education Center, Room A-118; 201-447-7211) has a staff of Professional Counselors that 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 with information and resources for transferring to a four-year college. Counselors are available by appointment when appropriate. Transfer Information Sessions are offered each semester. Other transfer resources include two Transfer Fairs a year, a Transfer Guide and Transfer Connection brochure, and "Best Bets" sheets, which show Bergen's course equivalents for specific four-year college and university courses. Individual college representatives visit the campus throughout the year (please refer to page 17 for further information).

**Alcohol and Drug Resources and Services.** The Counseling and Health Services Offices are available to assist Bergen Community College students with education, information, and counseling services for alcohol and drugs. Counselors are available to provide students with confidential, 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 acknowledging the presence of a related problem. Counselors provide referrals to treatment programs, and support to students as they make the transition to outside agencies. The counselors maintain a list of agencies which provide assistance with drugs and alcohol concerns in the Bergen County area.

### **Services for Students with Disabilities**

A wide variety of services are available to students with documented disabilities through the Office of Special Services (OSS) in Room S-131. 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. A more detailed explanation can be found on the College Web site <http://www.bergen.edu/oss>. Personal information is kept confidential.

The following accommodations may be provided on a semester to semester basis to students who have documented disabilities. Accommodations are provided only through the Office of Special Services and must be planned as early as possible. The main telephone number is 201-612-5270. Accommodations and services may include:

- Extended test taking time
- Organizational strategies
- Tutoring
- Career counseling
- Adaptive equipment computer labs
- Referral for off campus services
- Student support groups
- Job placement assistance
- Academic counseling
- Sign language interpreters
- Note takers
- Student and parent orientation
- Educational support strategies

Ongoing 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 Hygiene Program under the supervision of licensed dentists and dental hygienists. It is open three days a week in the fall semester and five days a week in the spring. For 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 Subway™, Chic 2 Day™ and Caliente. The cafeteria is open for breakfast, lunch, and dinner Monday through Thursday from 7:30 a.m. until 7:30 p.m., and Fridays from 7:30 a.m. until 2:30 p.m. The hours of operation for the Ender Hall snack bar are from 7:30 a.m. until 2:00 p.m., and 4:30 p.m. until 7:30 p.m. Monday through Thursday, and Fridays from 7:30 a.m. until 2:00 p.m. Dunkin Donuts™, located in the student center, is open Monday through Friday from 7:30 a.m. until 7:30 p.m., and Saturday from 7:30 a.m. until 1:30 p.m. The snack bar, also located in the Student Center, is open Friday evenings from 4:30 p.m. until 7:30 p.m. and Saturday from 7:30 a.m. until 1:30 p.m. A catering service is also available on campus. During Summer and inter-sessions, all food service outlets observe reduced hours of operation and offerings.

### **Health Services**

The Health Services office, located in Room B-101, is staffed by registered nurses for the purpose of rendering first aid, emergency care, health information, and health counseling. In addition, neighboring hospitals provide emergency medical service for more critical needs. The telephone number is 201-447-9257, fax number is 201-447-0327. More information about the health services can be obtained from 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 Allied Health, Nursing, and Dental Hygiene programs will be notified of specific health and immunization requirements.

Any illness or discomfort a student is experiencing should be reported to the college nurse. Injuries incurred on campus, or during a college-connected activity, must be reported immediately to the college nurse 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 Office of Public Safety is located in Room L-154 and open for emergencies 24 hours a day; its telephone number is 201-447-9200. 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 (Room S-131) serves students with physical, visual, learning, hearing, and emotional disabilities. The Adaptive Technology Lab is located in this office.

## Student Center

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

The Student Center hosts various activities which the Student Activities Board (SAB), and the Student Government Association (SGA) sponsor throughout the year: daytime musicians, film festivals, entertainment, and other social activities. These activities give all members of the 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, Room 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](mailto: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 Hackensack for public events and programs sponsored by non-profit 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 Degree



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 New Jersey and throughout the United States.

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

Options:

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

### Associate in Arts (A.A.) Degree Fine and Performing Arts

Options:

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

### Associate in Science (A.S.) Degree Natural Sciences or Mathematics

Options:

General Curriculum	Mathematics
Biology	Physics
Biotechnology	
Chemistry	
Computer Science	

### Associate in Science (A.S.) Option in Engineering Science Associate in Science (A.S.) Degree Professional Studies

Options:

- General Curriculum
- Broadcasting
- Business Administration
- Business Administration—Accounting
- Business Administration—International Trade
- Business Administration—Management
- Business Administration—Marketing
- Criminal Justice
- Education
- Exercise Science
- 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 consultant, 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

#### ALLIED HEALTH

Dental Hygiene	Medical Office Assistant
Diagnostic Medical Sonography	Radiography
Health Science	Respiratory Therapy
	Veterinary Technology

#### ART

- Computer Animation
- Graphic Design/Computer Graphics

#### BUSINESS ADMINISTRATION

- Accounting
- Banking, Credit, and Finance
- Legal Nurse Consultant
- Paralegal Studies

#### BUSINESS TECHNOLOGIES

- Hotel/Restaurant/Hospitality Catering/Banquet Management Hospitality Management
- Information Technology
- Networking Administration
- Office Technology
- Web Development and Management

#### HUMAN SERVICES

- Correctional Studies
- Early Childhood Education
- Law Enforcement Studies

#### INDUSTRIAL AND DESIGN TECHNOLOGIES

- Drafting and Design Technology
- Electronics Technology
- General Engineering Technology
- Manufacturing Technology

#### NURSING

- Day and Evening Sequences
- LPN/ADN Career Mobility Track

#### SCIENCE TECHNOLOGY

- Environmental Technology
- Horticulture
- Science Laboratory Technology

## ONE-YEAR CERTIFICATE PROGRAMS

Computer Aided Drafting (CAD)	Hospitality Management
Computer Animation	Landscaping
Computer Graphics	Medical Office Administrative Assistant
Computer Science	Music Business
Computer Technical Support	Music Technology
Culinary Arts	Networking and Web Development
E-Commerce:	Office Technology
Business Emphasis	Radiation Therapy Technology
Environmental Technology	Small Business Management
Exercise Science	Surgical Technology
Floral Design	Vascular Technology
Grounds Management	U.S. Studies

## CERTIFICATES OF ACHIEVEMENT

Biotechnology  
Commercial Music Production  
Environmental Technology  
Geographic Information Systems (GIS)  
Machine Tooling  
Manufacturing Design  
Professional Cooking  
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 between 12 and 18 credit hours, excluding 0-level courses. Students are required to demonstrate proficiency in English and Mathematics 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 Mathematics courses must be taken only if designated as prerequisites by courses in the certificate program. Other prerequisites for specific Certificate of Achievement 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 two-year, four-semester sequence. However, 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

Most curricula contain general education electives that must be selected from the list on page 72. (Please refer to Courses Approved For General Education).

### 4. Course prerequisites

Some courses require prerequisites. Refer 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.

### Online 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. Online 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. Bergen is a founding member of the New Jersey Virtual Community College Consortium (NJVCCC). Bergen students can enroll in NJVCCC online courses offered by NJVCCC participating schools. All NJVCCC online courses are offered for the same tuition rate, regardless of county or state residence. For more information and a current listing of Bergen's online courses, go to: <http://www.bergen.edu/dlearning>.

### Partially Online (Hybrid) Courses

Partially online (hybrid) courses combine a mixture of campus classroom sessions with coursework 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-to-face class sessions are required, an attendance policy may be enforced. For computer requirements and other useful information, go to <http://www.bergen.edu/dlearning/faq.asp>

### Web-enhanced courses

Web-enhanced courses meet for regularly scheduled class meetings on campus. However, Web-enhanced courses provide access to some course materials and activities on the Internet. Access 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. TeleWeb 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. Students will need to provide three blank videotapes to receive the videotaped portion of the course. TeleWeb 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 high schools and colleges. These classrooms are connected via video and audio to enable students from many sites to participate in a course with the same instructor at the same time.



# Programs at a Glance

A.A. . . . . .	Associate in Arts	Cert . . . . .	Certificate
A.S. . . . . .	Associate in Science	C.O.A. . . . .	Certificate of Achievement
A.A.S. . . . . .	Associate in Applied Science		

PROGRAM	DEGREE	CODE	PAGE
Allied Health, Dental Hygiene §	A.A.S.	AAS.AH.DENTL.	102
Allied Health, Diagnostic Medical Sonography §	A.A.S.	AAS.AH.DMS	102
Allied Health, Health Science †	A.A.S.	AAS.H.HLTH.SCI	103
Allied Health, Medical Office Assistant §	A.A.S.	AAS.AH.MOA	104
Allied Health, Radiography §	A.A.S.	AAS.AH.RAD	104
Allied Health, Respiratory Therapy §	A.A.S.	AAS.AH.RESP	105
Allied Health, Veterinary Technology	A.A.S.	AAS.H.VET	105
Art, Computer Animation	A.A.S.	AAS.IDT.ANIM	106
Art, Graphic Design/Computer Graphics	A.A.S.	AAS.IDT.GRPH.	106
Biotechnology	C.O.A.	COA.BIO.TECH	128
Business Administration, Accounting	A.A.S.	AAS.BUS.ACCT	107
Business Administration, Banking, Credit and Finance	A.A.S.	AAS.BUS.BANK	107
Business Administration, Legal Nurse Consultant	A.A.S.	AAS.BUS.LGL.NUR	108
Business Administration, Paralegal Studies	A.A.S.	AAS.BUS.PARALGL	108
Business Technology, Hotel/Restaurant - Catering & Banquet Management	A.A.S.	AAS.BT.HR.CATER	109
Business Technology, Hotel/Restaurant - Hospitality Management	A.A.S.	AAS.BT.HR.HOSP	109
Business Technology, Information Technology	A.A.S.	AAS.BT.INFO	110
Business Technology, Networking Administration	A.A.S.	AAS.BT.NET.ADM.	110
Business Technology, Office Technology	A.A.S.	AAS.BT.OFF.TECH.	111
Business Technology, Web Development and Management	A.A.S.	AAS.BT.WEB.MGMT	112
Commercial Music Production	C.O.A.	COA.MUSC.COMM.PROD.	128
Computer Aided Drafting (CAD) ♦	Cert	CERT.CAD	121
Computer Animation♦***	Cert	CERT.COMP.ANIM	122
Computer Graphics♦***	Cert	CERT.COMP.GRAPH	122
Computer Science ♦	Cert	CERT.COMP.SCI	121
Computer Technical Support ♦	Cert	CERT.COMP.SUPPORT	123
Culinary Arts ♦	Cert	CERT.CULN.ARTS	123
E-Commerce: Business Emphasis	Cert	CERT.ECOMM.BUS	123
Engineering Science	A.S.	AS.ENGIN.SCI	93
Environmental Technology ♦	Cert	CERT.ENV.TECH	123
Environmental Technology ♦†	C.O.A.	COA.ENV	128
Exercise Science ♦	Cert	CERT.EXER.SCI	124
Fine and Performing Arts, Art	A.A.	AA.FPA.ART	82
Fine and Performing Arts, Music Arts - General Music Arts	A.A.	AA.FPA.MUSC	82
Fine and Performing Arts, Music Arts - Computer-Based Recording	A.A.	AA.FPA.MUSC.COMP	83
Fine and Performing Arts, Music Arts - Electronic Music	A.A.	AA.FPA.MUSC.ELEC	83
Fine and Performing Arts, Music Arts - Music Business	A.A.	AA.FPA.MUSC.BUS	84
Fine and Performing Arts, Theatre - General	A.A.	AA.FPA.THTR	84
Fine and Performing Arts, Theatre - Acting	A.A.	AA.FPA.THTR.ACT	85
Fine and Performing Arts, Theatre - Dance	A.A.	AA.FPA.THTR.DAN	85
Fine and Performing Arts, Theatre - Technical Production	A.A.	AA.FPA.THTR.TECH	86
Floral Design ♦	Cert	CERT.FLORAL	124
Geographic Information Systems ♦	C.O.A.	COA.GIS	128
Grounds Management ♦	Cert	CERT.GRND.MGT	124
Hospitality Management ♦	Cert	CERT.HOSP.MGMT	124
Human Services, Correctional Studies	A.A.S.	AAS.HS.CORR	113
Human Services, Early Childhood Education	A.A.S.	AAS.HS.EARLY.CHILD	113
Human Services, Law Enforcement Studies	A.A.S.	AAS.HS.LAWENF	114
Industrial and Design Technology, Drafting and Design Technology	A.A.S.	AAS.IDT.DRFT.	115
Industrial and Design Technology, Electronics Technology	A.A.S.	AAS.IDT.ELECT.TECH	115
Industrial and Design Technology, General Engineering Technology	A.A.S.	AAS.IDT.ET.GEN	116
Industrial and Design Technology, Manufacturing Technology	A.A.S.	AAS.IDT.MFG.TECH	116

§ 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.

♦ International students are not eligible for this program.

\*\*\* These certificate programs are designed for practicing professionals in these fields.

† 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
Landscaping ♦	Cert	CERT.LAND	125
Liberal Arts - General	A.A.	AA.LA.GEN	74
Liberal Arts - Cinema Studies	A.A.	AA.LA.CINST	74
Liberal Arts - Communication Arts	A.A.	AA.LA.COMM	75
Liberal Arts - Economics	A.A.	AA.LA.ECON	75
Liberal Arts - History ***	A.A.	AA.LA.HIST	76
Liberal Arts - Literature	A.A.	AA.LA.LIT	76
Liberal Arts - Philosophy ***	A.A.	AA.LA.PHIL	77
Liberal Arts - Political Science	A.A.	AA.LA.POLI.SCI	77
Liberal Arts - Psychology	A.A.	AA.LA.PSY	78
Liberal Arts - Religion ***	A.A.	AA.LA.REL	78
Liberal Arts - Social Sciences ***	A.A.	AA.LA.SOC.SCI	79
Liberal Arts - Sociology ***	A.A.	AA.LA.SOC	79
Liberal Arts - Women's Studies	A.A.	AA.LA.WMST	80
Liberal Arts - World Languages and Cultures	A.A.	AA.LA.FORGN.LANG	80
Machine Tooling	C.O.A.	COA.MFTG.TOOLING	128
Manufacturing Design	C.O.A.	COA.MFTG.DESIGN	128
Medical Office Administrative Assistant ♦	Cert	CERT.MOAA	125
Music Business	Cert	CERT.MUS.BUS	125
Music Technology	Cert	CERT.MUS.TECH	125
Networking and Web Development ♦	Cert	CERT.NET.WEB	126
Natural Sciences or Math - General	A.S.	AS.NSM.GEN	88
Natural Sciences or Math - Biology	A.S.	AS.NSM.BIO	88
Natural Sciences or Math - Biotechnology	A.S.	AS.NSM.BIO.TECH	89
Natural Sciences or Math - Chemistry	A.S.	AS.NSM.CHEM	90
Natural Sciences or Math - Computer Science	A.S.	AS.NSM.COMP.SCI	90
Natural Sciences or Math - Mathematics	A.S.	AS.NSM.MATH	91
Natural Sciences or Math - Physics	A.S.	AS.NSM.PHYSC	91
Nursing - Day §*	A.A.S.	AAS.NURS.DAY	117
Nursing - Evening §**	A.A.S.	AAS.NURS.EVE	117
Nursing – LPN/ADN Career Mobility Track- Day §*††	A.A.S.	AAS.NURS.MBL.DAY	118
Nursing – LPN/ADN Career Mobility Track- Evening §**††	A.A.S.	AAS.NURS.MBL.EVE	118
Office Technology ♦	Cert	CERT.OFFICE.TECH	126
Professional Cooking ♦	C.O.A.	COA.PROF.COOK	129
Professional Studies - General	A.S.	AS.PS.GEN	95
Professional Studies - Broadcasting	A.S.	AS.PS.BRCAST	95
Professional Studies - Business Administration ***	A.S.	AS.PS.BUS.ADM	96
Professional Studies - Business Administration - Accounting	A.S.	AS.PS.BUS.ACCT	96
Professional Studies - Business Administration - International Trade	A.S.	AS.PS.BUS.INTL	97
Professional Studies - Business Administration - Management ***	A.S.	AS.PS.BUS.MGMT	97
Professional Studies - Business Administration - Marketing ***	A.S.	AS.PS.BUS.MKTG	98
Professional Studies - Criminal Justice	A.S.	AS.PS.CRIMJ	98
Professional Studies - Education ***	A.S.	AS.PS.EDUC	99
Professional Studies - Exercise Science	A.S.	AS.PS.EXER	99
Professional Studies - Journalism	A.S.	AS.PS.JOUR	100
Professional Studies - Social Work	A.S.	AS.PS.SOC.WK	100
Radiation Therapy Technology	Cert	CERT.RAD.THERAPY	126
Real Estate	C.O.A.	COA.REA	129
Science Technology - Environmental Technology	A.A.S.	AAS.ST.ENV.TECH	119
Science Technology - Horticulture	A.A.S.	AAS.ST.HORT	119
Science Technology - Science Laboratory Technology	A.A.S.	AAS.ST.SLT	120
Small Business Management ♦	Cert	CERT.SM.BUS.MGMT	126
Special Imaging for Radiologic Technologists ♦†	C.O.A.	COA.SPEC.IMAG.RAD	129
Surgical Technology ♦§	Cert	CERT.SURG	127
United States Studies ♦ ***	Cert	CERT.US	127
Vascular Technology	Cert	CERT.VAS.TECH	127

♦ 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.

†† 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.njtransfer.org>). Students interested in transferring to out-of-state schools should consult the catalogs and websites of those institutions.

## I. COMMUNICATION

- SPE111 Speech Communication  
WRT101 English Composition I  
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 1400-1900  
COM101 Mass Media of Communication  
MUS101 Music Appreciation  
MUS107 Music History I  
MUS108 Music History II  
MUS110 Music, Art, and Drama  
THR101 Introduction to Theatre  
THR140 Introduction to Cinema

### HISTORY

- HIS101 History of Western Civilization to the Reformation  
HIS102 History of Western Civilization since the Reformation  
HIS105 Women in History ♦  
HIS106 History of Modern Europe to the French Revolution  
HIS107 History of Modern 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 Modern 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  
LAN165 Korean I  
LAN265 Korean II  
LAN114 Russian I  
LAN240 Russian II  
LAN241 Intermediate Russian I

### 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 SCIENCE

- MAT130 Contemporary Mathematics  
MAT150 Elementary Statistics  
MAT155 Finite Mathematics  
CIS158 Introduction to Computer Science  
CIS163 Computer Programming: QBASIC  
CIS165 C++ Programming I  
CIS266 Computer Programming: Visual BASIC  
MAT180 Precalculus: College Algebra and Trigonometry  
MAT223 Calculus for Managerial and Social Sciences  
MAT250 Statistical Analysis  
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 I\* †  
BIO209 Anatomy and Physiology II\* †  
BIO130 People-Plant Relationships  
BIO131 General Botany\*  
BIO203 General Biology II\*

### CHEMISTRY

- CHM100 Introduction to Chemistry\*  
CHM102 Chemistry in Context\*  
CHM112 College Chemistry\*  
CHM140 General Chemistry I\*  
CHM141 General Chemistry I-Lab\*  
CHM240 General Chemistry II\*  
CHM241 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

- GEO101 World Geography  
GEO102 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 Dance  
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

\*Lab Science Elective. To receive full general education credit for CHM140, a student must also take CHM141, and for CHM240, a student must also take CHM241.

†Some colleges may require both BIO109 and BIO209 before transfer credit is awarded.

♦These courses satisfy the Bergen Diversity Requirement.

## 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:  Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) Literature (LIT) Philosophy and Religion (PHR) 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) Geography (GEO) Political Science (POL) Psychology (PSY) 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:  Biology (BIO) Chemistry (CHM) 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 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 following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208.

\*\* Choose one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

## 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

<b>First Semester</b>		
HIS...	History Elective*	3
.....	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
		17

<b>Second Semester</b>		
HIS...	History Elective*	3
.....	Humanities Elective**	3
MAT/CIS...	Mathematics/Computer Science Elective***	3
.....	Social Science Elective***	3
WEX...	Dynamics of Health and Fitness Experience***	1
WRT201	English Composition II	3
		16

<b>Third Semester</b>		
.....	Free Electives	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

<b>Fourth Semester</b>		
.....	Free Electives	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

\* General Education Elective in History - see page 72

\*\* General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\*\* General Education Elective - see page 72.

**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; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

### CINEMA STUDIES OPTION CODE AA.LA.CINST

<b>First Semester</b>		
CIN/THR...	General Education Elective in Cinema Studies*	3
HIS...	History 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
		17

<b>Second Semester</b>		
CIN150	Special Topics in Cinema I	3
.....	Humanities Elective†	3
MAT/CIS...	Mathematics/Computer Science Elective***	3
WEX...	Dynamics of Health and Fitness Experience***	1
WRT201	English Composition II	3
.....	Social Science Elective‡	3
		16

<b>Third Semester</b>		
HIS...	History Elective**	3
.....	Humanities Electives†	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective‡	3
		16

<b>Fourth Semester</b>		
CIN250	Special Topics in Cinema II	3
.....	Humanities Electives†	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective‡	3
		16

\* General Education Elective in Arts and Media – see page 72.

Recommended: CIN140/THR140 Introduction to Cinema.

\*\* General Education Elective in History – see page 72.

\*\*\* General Education Elective – see page 72.

† General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.

Recommended: LIT202, LIT228, LIT220, ART101, MUS110.

‡ General Education Elective – see page 72.

Recommended: ANT100, ANT101, PSY101, SOC101, 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...	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
MAT/CIS...	Mathematics/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†	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

#### Fourth Semester

COM...	Mass Communications Elective‡	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

\* General Education Elective in History – see page 72.

\*\* General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.

\*\*\* General Education Elective – see page 72.

† COM101 Mass Media of Communication recommended.

‡ Select any Mass 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 Science Elective***	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
		15

#### Second Semester

ECO...	General Education Elective in Economics†	3
HIS...	History Elective**	3
.....	Humanities Electives‡	6
MAT/CIS...	Mathematics/Computer Science Elective***	3
WRT201	English Composition II	3
		18

#### Third Semester

ECO...	Economics Elective◆	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
WEX101	Dynamics of Health & Fitness	2
		15

#### Fourth Semester

ECO...	Economics Elective◆	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
WEX...	Dynamics of Health & Fitness Experience***	1
.....	Social Science Elective◆◆	3
		17

\* See page 72. Recommended: ECO101 Macroeconomics.

\*\* General Education Elective in History – see page 72.

\*\*\* General Education Elective – see page 72.

† See page 72. Recommended: ECO201 Microeconomics.

‡ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.

◆ Select any Economics course.

◆◆ General Education Electives in Anthropology, Geography, Political Science, Psychology, or Sociology – see page 72.

#### Diversity Requirement Applies

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

### HISTORY OPTION CODE AA.LA.HIST

#### First Semester

HIS...	General Education Elective in History*	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...	General Education Elective in History*	3
.....	Humanities 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
		16

#### Third Semester

HIS...	History Elective†	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

#### Fourth Semester

HIS...	History Elective†	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

\* See page 72. 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 72.

\*\*\* General Education Elective – see page 72.

† 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 CODE AA.LA.LIT

#### 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

LIT...	General Education Elective in Literature†	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
		16

#### Third Semester

LIT...	General Education Elective in Literature†	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

#### Fourth Semester

LIT...	Literature Electives‡	6
.....	Humanities Elective**	3
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

\* General Education Elective in History – see page 72.

\*\* General Education Electives in Arts and Media, Philosophy and Religion, or World Languages – see page 72.

\*\*\* General Education Elective – see page 72.

† See page 72.

‡ Select any two Literature courses.

Diversity Requirement Applies

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

### PHILOSOPHY OPTION CODE AA.LA.PHIL

#### First Semester

PHR...	General Education Elective in Philosophy*	3
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 Philosophy†	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
		16

#### Third Semester

PHR...	Philosophy Elective‡	3
.....	Humanities Electives◆	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

#### Fourth Semester

PHR...	Philosophy Elective‡	3
.....	Humanities Electives◆	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

\* See page 72. Recommended: PHR101 Introduction to Philosophy.

\*\* General Education Elective in History – see page 72.

\*\*\* General Education Elective – see page 72.

† See page 72. Recommended: PHR103 Basic Logic.

‡ Select any Philosophy course.

◆ General Education Electives in Arts and Media, Literature, or World Languages – see page 72.

**Diversity Requirement Applies**

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

#### First Semester

POL...	General Education Elective in Political Science*	3
HIS...	History Elective**	3
MAT/CIS...	Mathematics/Computer Science Elective***	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
		15

#### Second Semester

POL...	General Education Elective in Political Science*	3
HIS...	History Elective**	3
.....	Humanities Electives†	6
MAT/CIS...	Mathematics/Computer Science Elective***	3
WRT201	English Composition II	3
		18

#### Third Semester

POL...	Political Science Elective‡	3
.....	Humanities Electives†	6
.....	Natural Sciences Elective◆	4
WEX101	Dynamics of Health & Fitness	2
		15

#### Fourth Semester

POL...	Political Science Elective‡	3
.....	Humanities Electives†	6
.....	Natural Sciences Elective◆	4
WEX...	Dynamics of Health & Fitness Exp◆	1
.....	Social Science Elective◆◆	3
		17

\* See page 72. Recommended: POL101 American Government or POL107 Introduction to Politics.

\*\* General Education Elective in History – see page 72.

\*\*\* General Education Elective in Mathematics/Computer Science – see page 72. Recommended: MAT150 Elementary Statistics.

† General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.

‡ Select any Political Science course.

◆ General Education Elective – see page 72.

◆◆ General Education Elective in Anthropology, Economics, Geography, Psychology, or Sociology – see page 72.

**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 Psychology†	3
HIS...	History Elective**	3
.....	Humanities Electives‡	6
MAT/CIS...	Mathematics/Computer Science Elective***	3
WRT201	English Composition II	3
		18

#### Third Semester

PSY...	Psychology Elective◆	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
WEX101	Dynamics of Health & Fitness	2
		15

#### Fourth Semester

PSY...	Psychology Elective◆	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
WEX...	Dynamics of Health & Fitness Experience***	1
.....	Social Science Elective◆◆	3
		17

- \* See page 72. Recommended: PSY101 General Psychology
- \*\* General Education Elective in History – see page 72.
- \*\*\* General Education Elective – see page 72.
- † See page 72.
- ‡ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.
- ◆ Select any Psychology course.
- ◆◆ General Education Elective in Anthropology, Economics, Geography, Political Science, or Sociology – see page 72.

Diversity Requirement Applies

### RELIGION OPTION CODE AA.LA.REL

#### First Semester

PHR...	General Education Elective in Religion*	3
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 Religion†	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
		16

#### Third Semester

PHR...	Religion Elective‡	3
.....	Humanities Electives◆	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

#### Fourth Semester

PHR...	Religion Elective‡	3
.....	Humanities Electives◆	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

- \* See page 72. Recommended: PHR120 Introduction to Religion.
- \*\* General Education Elective in History – see page 72.
- \*\*\* General Education Elective – see page 72.
- † See page 72. Recommended: PHR121 Religions of the World.
- ‡ Select any Religion course.
- ◆ General Education Electives in Arts and Media, Literature, or World Languages – see page 72.

Diversity Requirement Applies

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

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

#### First Semester

.....	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

.....	General Education Elective in Social Sciences*	3
HIS...	History Elective**	3
.....	Humanities Electives†	6
MAT/CIS...	Mathematics/Computer Science Elective***	3
WRT201	English Composition II	3
		18

#### Third Semester

.....	General Education Elective in Social Sciences*	3
.....	Humanities Electives†	6
.....	Natural Sciences Elective***	4
WEX101	Dynamics of Health & Fitness	2
		15

#### Fourth Semester

.....	Social Science Electives‡	6
.....	Humanities Electives†	6
.....	Natural Sciences Elective***	4
WEX...	Dynamics of Health & Fitness Experience***	1
		17

\* See page 72.

\*\* General Education Elective in History – see page 72.

\*\*\* General Education Elective – see page 72.

† General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.

‡ Select any two courses from the fields of Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

**Diversity Requirement Applies**

### SOCIOLOGY OPTION CODE AA.LA.SOC

#### First Semester

SOC...	General Education Elective in Sociology*	3
HIS...	History Elective**	3
MAT/CIS...	Mathematics/Computer Science Elective***	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
		15

#### Second Semester

SOC...	General Education Elective in Sociology†	3
HIS...	History Elective**	3
.....	Humanities Electives‡	6
MAT/CIS...	Mathematics/Computer Science Elective***	3
WRT201	English Composition II	3
		18

#### Third Semester

SOC...	Sociology Elective◆	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
WEX101	Dynamics of Health & Fitness	2
		15

#### Fourth Semester

SOC...	Sociology Elective◆	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
WEX...	Dynamics of Health & Fitness Experience***	1
.....	Social Science Elective◆◆	3
		17

\* See page 72. Recommended: SOC101 Sociology.

\*\* General Education Elective in History – see page 72.

\*\*\* General Education Elective – see page 72.

† See page 72.

‡ General Education Electives in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.

◆ Select any Sociology or Anthropology course.

◆◆ General Education Elective in Economics, Geography, Political Science, or Psychology – see page 72.

**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†	3
MAT/CIS...	Mathematics/Computer Science Elective***	3
WEX...	Dynamics of Health & Fitness Experience***	1
WRT201	English Composition II	3
		16

#### Third Semester

.....	Women's Studies Elective‡	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective◆	3
		16

#### Fourth Semester

.....	Women's Studies Elective‡	3
.....	Humanities Electives**	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

\* General Education Elective in History – see page 72.

Recommended: HIS105 Women in History or HIS116 Women in American History

\*\* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages – see page 72.

Recommended: PHR122 Women and Religion or LIT228 Women in Literature.

\*\*\* General Education Elective – see page 72.

† General Education Elective in Social Sciences – see page 72.

Recommended: SOC120 Sociology of Gender Roles or SOC121 Changing Roles of Women.

‡ Select from the following: PSY207 Psychology of Women; SOC120 Sociology of Gender Roles; SOC121 Changing Roles of Women; LIT228 Women in Literature.

◆ General Education Elective in Social Sciences – see page 72.  
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...	Mathematics/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...	Mathematics/Computer Science Elective***	3
WEX...	Dynamics of Health & Fitness Experience***	1
WRT201	English Composition II	3
.....	Social Science Elective***	3
		16

#### Third Semester

LAN...	World Languages Elective†	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

#### Fourth Semester

LAN...	World Languages Elective†	3
.....	Humanities Electives‡	6
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

\* See page 72. 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 72.

\*\*\* General Education Elective – see page 72.

† Intermediate or Advanced level language courses depending on initial placement. See the World Languages and Cultures Program Coordinator for advisement on course selection.

‡ General Education Electives in Arts and Media, Literature, or Philosophy and Religion – see page 72.

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)  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:  Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) Literature (LIT) Philosophy and Religion (PHR) World Languages and Cultures (LAN)
Social Sciences	6	Two general education courses (6 cr.) to be selected from two of the following fields:  Economics (ECO) Geography (GEO) Political Science (POL) Psychology (PSY) Sociology (SOC) and Anthropology (ANT)
Mathematics and Computer Science	3-4	One general education course (3-4 cr.) in Mathematics/Computer Science (MAT/CIS)
Natural Sciences	4	One general education course (4 cr.) to be selected from the following fields:  Biology (BIO) Chemistry (CHM) 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 following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208.

\*\* Choose at least one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

## 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 CODE AA.FPA.ART

<b>First Semester</b>		
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

<b>Second Semester</b>		
ART227	Painting I	3
.....	Humanities Electives**†	6
MAT/CIS...	Mathematics/Computer Science Elective***	3
WRT201	English Composition II	3
WEX...	Dynamics of Health and Fitness Experience***	1
		16

<b>Third Semester</b>		
ART...	Studio Art Elective‡	3
HIS...	History Elective◆	3
.....	Humanities Elective**†	3
.....	Natural Sciences Elective***	4
.....	Social Science Elective***	3
		16

<b>Fourth Semester</b>		
ART...	Studio Art Elective‡	3
HIS...	History Elective◆	3
.....	Humanities Electives**	6
.....	Social Science Elective***	3
		15

\* Course uses Macintosh computers

\*\* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\*\* General Education Elective - see page 72.

† Recommended: ART101 Art Appreciation; ART102 Art History Through the Renaissance; ART103 Art History Since the Renaissance.

‡ "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 72

Diversity Requirement Applies

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

<b>First Semester</b>		
MUS131	Class Piano I	2
MUS...	Music Elective	3
.....	Social Science Elective*	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
.....	Humanities Elective**†	3
		17

<b>Second Semester</b>		
MUS231	Class Piano II	2
MUS...	Music Elective	3
WRT201	English Composition II	3
.....	Humanities Elective**†	3
MAT/CIS...	Mathematics/Computer Science Elective*	3
.....	Social Science Elective*	3
		17

<b>Third Semester</b>		
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

<b>Fourth Semester</b>		
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
		15

\* General Education Elective - see page 72.

\*\* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\*\* General Education Elective in History - see page 72.

† 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	
.....	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**†	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	
		15	

\*General Education Elective - see page 72.

\*\*General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\*\*General Education Elective in History - see page 72.

† Recommended: MUS101 Music Appreciation; MUS110 Music, 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**†	3	
		17	

#### Second Semester

MUS231	Class Piano II	2	
MUS250	Electronic Music II	3	
WRT201	English Composition II	3	
.....	Humanities Elective**†	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	
		15	

\*General Education Elective - see page 72.

\*\*General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\*\*General Education Elective in History - see page 72.

† 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**†	3
		17

#### Second Semester

MUS231	Class Piano II	2
MUS252	Music Business II	3
WRT201	English Composition II	3
.....	Humanities Elective**†	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
		15

\* General Education Elective - see page 72.

\*\* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\*\* General Education Elective in History - see page 72.

† Recommended: MUS101 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

.....	Humanities Elective*†	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*†	3
MAT/CIS...	Mathematics/Computer Science Elective**	3
.....	Social Science Elective**	3
THR120	Stage Makeup	1
THR113	Movement for the Performing Artist	2
THR210	Scene Study	3
THR124	Dance Experience	3
COM106	TV Production	3
WRT201	English Composition II	3
		15-16

#### Third Semester

HIS...	History Elective***	3
.....	Humanities Electives*	6
.....	Natural Sciences Elective**	4
THR117	Theatre Performance and Production	2
COM105	Radio Production	3
DAN...	Dance Technique Classes‡	1
WEX101	Dynamics of Health and Fitness	2
		16-18

#### 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...	Dance Technique Classes‡	2
WEX...	Dynamics of Health and Fitness Experience**	1
		16-17

\* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\* General Education Elective - see page 72.

\*\*\* General Education Elective in History - see page 72.

† Recommended: THR101 Introduction to Theatre; MUS110 Music, Art, and Drama; THR140 Introduction to Cinema

‡ Dance Technique classes should be selected from those DAN classes offered 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*†	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*†	3
MAT/CIS...	Mathematics/Computer Science Elective**	3
THR113	Movement 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
		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 Religion, or World Languages - see page 72.

\*\* General Education Elective - see page 72.

\*\*\* General Education Elective in History - see page 72.

† Recommended: THR101 Introduction to Theatre; MUS110 Music, Art, and Drama; THR140 Introduction to Cinema

**Diversity Requirement Applies**

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

#### First Semester

.....	Humanities Elective*†	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*†	3
MAT/CIS...	Mathematics/Computer Science Elective**	3
.....	Social Science Elective**	3
THR113	Movement for the Performing Artist	2
THR120	Stage Makeup	1
THR124	Dance Experience	3
WRT201	English Composition II	3
		18

#### 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
		17

#### Fourth Semester

DAN...	Dance Technique Classes‡	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**	1
		15-16

\* General Education Elective in Arts and Media, Literature, Philosophy and Religion, or World Languages - see page 72.

\*\* General Education Elective - see page 72.

\*\*\* General Education Elective in History - see page 72.

† Recommended: THR101 Introduction to Theatre; MUS110 Music, Art, and Drama; THR140 Introduction to Cinema.

‡ Dance Technique classes should be selected from those DAN classes offered each semester.

**Diversity Requirement Applies**



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

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

#### First Semester

.....	Humanities Elective*†	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

COM106	TV Production	3
.....	Humanities Elective*†	3
MAT/CIS...	Mathematics/Computer Science Elective**	3
.....	Social Science Elective**	3
THR120	Stage Makeup	1
WRT201	English Composition II	3
		16

#### 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
		17

#### Fourth Semester

HIS...	History Elective***	3
.....	Humanities Elective*	3
.....	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 72.

\*\* General Education Elective - see page 72.

\*\*\* General Education Elective in History - see page 72.

† Recommended: THR101 Introduction to Theatre; MUS110 Music, 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, Mathematics, 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, 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:  Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) History (HIS) Literature (LIT) Philosophy and Religion (PHR) World Languages and Cultures (LAN)
Social Sciences	6	Two general education courses (6 cr.) to be selected from two of the following fields:  Economics (ECO) Geography (GEO) Political Science (POL) Psychology (PSY) Sociology (SOC) and Anthropology (ANT)
Mathematics and Computer Science	8	Two general education courses (8 cr.) in Mathematics/Computer Science (MAT/CIS)*
Natural Sciences	8	Two general education courses (8 cr.) to be selected from the following fields:  Biology (BIO) Chemistry (CHM) 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.***

\* MAT280 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; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

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

### GENERAL SCIENCE CURRICULUM CODE AS.NSM.GEN

#### First Semester

WEX101	Dynamics of Health and Fitness	2
MAT/CIS...	Mathematics/Computer Science Elective*†	4
.....	Natural Sciences Elective in Biology, Chemistry, Earth Science, or Physics*	4
SPE111	Speech Communication	3
WRT101	English Composition I	3
		16

#### Second Semester

.....	Humanities Elective*	3
MAT/CIS...	Mathematics/Computer Science Elective*†	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	3
.....	Social Science Elective*	3
		15

#### Fourth Semester

.....	Humanities Electives*	6
.....	Natural Sciences and/or	10-12
MAT/CIS...	Mathematics/Computer Science Electives	3
		16-18

\*General Education Elective - see page 72.

†MAT280 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; HIS126; HIS130;  
HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122;  
PSY207; SOC120; SOC121; SOC222.

### BIOLOGY OPTION CODE AS.NSM.BIO

#### First Semester

BIO101	General Biology I	4
WEX101	Dynamics of Health and Fitness	2
MAT180	Precalculus	4
SPE111	Speech Communication	3
WRT101	English Composition I	3
		16

#### Second Semester

BIO203	General Biology II	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 or	4
MAT/CIS...	Mathematics/Computer Science Elective	3-4
		17-18

\* General Education Elective - see page 72.

\*\* Students must choose among the following courses: BIO201, BIO202, BIO227,  
BIO228, BIO229.

\*\*\* CHM140/CHM141 General Chemistry I and CHM240/241 General Chemistry II  
are recommended.

#### Diversity Requirement Applies

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

### BIOTECHNOLOGY OPTION CODE AS.NSM.BIO.TECH

#### First Semester

BIO101	General Biology I	4
CHM140	General Chemistry I	3
CHM141	General Chemistry Laboratory I	1
WRT101	English Composition I	3
.....	Humanities Elective*	3
.....	Social Science Elective*	3
		17

#### Second Semester

BIO203	General Biology II	4
CHM240	General Chemistry II	3
CHM241	General Chemistry Laboratory II	1
MAT150	Elementary Statistics	3
WRT201	English Composition II	3
.....	Humanities Elective*	3
		17

#### Third Semester

BIO210	Introduction to Biotechnology	4
MAT180	Precalculus: College Algebra and Trigonometry	4
WEX101	Dynamics of Health and Fitness	2
.....	Humanities Elective*	3
.....	Humanities Elective*	3
		16

#### Fourth Semester

BIO211	Introduction to Bioinformatics	3
MAT280	Calculus I	4
SPE111	Speech Communication	3
.....	WEX... Dynamics of Health and Fitness Experience*	1
.....	Social Science Elective*	3
		14

\* General Education Elective - see page 72

**Diversity Requirement Applies**



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

### CHEMISTRY OPTION CODE AS.NSM.CHEM

#### First Semester

CHM140	General Chemistry I	3
CHM141	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 Semester

CHM240	General Chemistry II	3
CHM241	General Chemistry II-Lab	1
MAT281	Calculus II	4
WRT201	English Composition II	3
.....	Humanities Elective*	3
.....	Social Science Elective*	3
		17

#### Third Semester

CHM260	Organic Chemistry I	4
WEX...	Dynamics of Health and Fitness Experience*	1
MAT282	Calculus III	4
.....	Humanities Elective*	3
.....	Natural Sciences Elective**	4
		16

#### Fourth Semester

CHM262	Organic Chemistry II	4
.....	Humanities Electives*	6
.....	Natural Sciences Elective**	4
.....	Social Science Elective*	3
		17

\* General Education Elective - see page 72.

\*\* PHY186 General Physics I and PHY286 General Physics II are highly recommended.

Diversity Requirement Applies

### COMPUTER SCIENCE OPTION CODE AS.NSM.COMP.SCI

#### First Semester

CIS165	C++ Programming I*	3
MAT280	Calculus I	4
SPE111	Speech Communication	3
WRT101	English Composition I	3
.....	Humanities Elective**	3
		16

#### Second Semester

CIS265	C++ Programming II	3
CIS271	Computer Organization and Assembly Language	3
MAT281	Calculus II	4
or		
CIS288	Discrete Mathematics for Computer Science	4
WRT201	English Composition II	3
WEX101	Dynamics of Health and Fitness	2
.....	Humanities Elective**	3
		18

#### Third Semester

CIS277	Data Structures and Algorithms	3
CIS/MAT...	Computer Science/Mathematics Elective***	3-4
.....	Natural Science Elective†	4
.....	Humanities Elective**	3
.....	Social Science Elective†	3
		16-17

#### Fourth Semester

CIS/MAT...	Computer Science/Mathematics Electives***	4-6
.....	Natural Science Elective†	4
.....	Humanities Elective**	3
.....	Social Science Elective**	3
WEX...	Dynamics of Health and Fitness Experience†	1
		15-17

\* 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, MAT281, MAT282, MAT286, CIS287, CIS288, CIS289.

\*\* General Education Elective - see page 72. PHR103 Basic Logic and PHR203 Intermediate Logic are recommended as Humanities Electives.

\*\*\* This elective requirement in Computer Science and/or Mathematics must total at least 7 credits to be selected from the following courses: MAT250, CIS266, CIS278, MAT281, MAT282, MAT286, CIS287, CIS288, CIS289.

† General Education Elective - see page 72.

‡ PHY280 Physics I and PHY290 Physics II or CHM140 General Chemistry I and CHM141 General Chemistry Lab I and CHM240 General Chemistry II and CHM241 General Chemistry Lab II are recommended.

Diversity Requirement Applies

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

### MATHEMATICS OPTION CODE AS.NSM.MATH

#### First Semester

WEX101	Dynamics of Health and Fitness	2	
MAT280	Calculus I	4	
WRT101	English Composition I	3	
.....	Humanities Elective*	3	
MAT...	Mathematics Elective**		
	or		
CIS...	Computer Science**	3-4	
	or		
.....	Natural Sciences Elective**		
		15-16	

#### Second Semester

MAT281	Calculus II	4	
WRT201	English Composition II	3	
.....	Humanities Elective*	3	
MAT...	Mathematics Elective**		
	or		
CIS...	Computer Science Elective**	3-4	
.....	Social Science Elective*	3	
		16-17	

#### Third Semester

WEX...	Dynamics of Health and Fitness Experience*	1	
MAT282	Calculus III	4	
MAT286	Linear Algebra	4	
.....	Humanities Elective*	3	
MAT...	Mathematics**		
	or		
CIS...	Computer Science**	3-4	
	or		
.....	Natural Sciences Elective**		
		15-16	

#### Fourth Semester

MAT283	Differential Equations	4	
SPE111	Speech Communication	3	
.....	Humanities Elective*	3	
.....	Social Science Elective*	3	
MAT...	Mathematics**		
	or		
CIS...	Computer Science**	3-4	
	or		
.....	Natural Sciences Elective**		
		16-17	

\* General Education Elective - see page 72.

\*\* The student must choose among the following courses:

Mathematics: MAT250

Computer Science: CIS165, CIS265, CIS288

Natural Sciences: CHM140/141 and CHM240/241, or PHY186 and PHY286 or PHY190 and PHY290.

This elective requirement in the first, third, and fourth semesters must total at least 16 credits, including at least one course in Computer Science and at least one 8-credit sequence in Laboratory Science.

Diversity Requirement Applies

### PHYSICS OPTION CODE AS.NSM.PHYSC

#### First Semester

MAT280	Calculus I	4	
PHY280	Physics I	4	
SPE111	Speech Communication	3	
WRT101	English Composition I	3	
.....	Social Science Elective*	3	
		17	

#### Second Semester

MAT281	Calculus II	4	
PHY290	Physics II	4	
WRT201	English Composition II	3	
.....	Humanities Electives*	6	
		17	

#### Third Semester

WEX101	Dynamics of Health and Fitness	2	
MAT282	Calculus III	4	
PHY291	Physics III	4	
.....	Humanities Elective*	3	
.....	Natural Sciences Elective**	4	
		17	

#### Fourth Semester

WEX...	Dynamics of Health and Fitness Experience*	1	
PHY294	Engineering Mechanics	4	
.....	Humanities Elective*	3	
.....	Natural Sciences Elective**	4	
.....	Social Science Elective*	3	
		15	

\* General Education Elective - see page 72.

\*\* CHM140/141 General Chemistry I and CHM240/241 General Chemistry II are recommended.

Diversity Requirement Applies

## 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:  Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) History (HIS) Literature (LIT) Philosophy and Religion (PHR) World Languages and Cultures (LAN)
Social Sciences	6	Two general education courses (6 cr.) to be selected from the following fields:  Economics (ECO) Geography (GEO) Political Science (POL) Psychology (PSY) Sociology (SOC) and Anthropology (ANT)
Mathematics and Computer Science	8	Two general education courses (8 cr.) in Mathematics/Computer Science (MAT/CIS)*
Natural Sciences	8	Two general education courses (8 cr.) in one of the following fields:  Biology (BIO) Chemistry (CHM) 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.

\*\* Choose one of the following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208.

\*\*\* Choose at least one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; 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 CODE AS.ENGIN.SCI

#### First Semester

CHM140	General Chemistry I	3
CHM141	Gen Chemistry Laboratory I	1
DFT107	Drafting I	2
MAT280	Calculus I	4
PHY280	Physics I	4
WRT101	English Composition I	3
		17

#### Second Semester

CHM240	General Chemistry II	3
CHM241	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

MAT282	Calculus III	4
PHY291	Physics III	4
.....	Humanities Elective*†	3
.....	Social Science Elective*‡	3
WEX101	Dynamics of Health and Fitness	2
		16

#### Fourth Semester

MAT283	Differential Equations	4
PHY294	Engineering Mechanics	4
.....	Humanities Elective*†	3
.....	Social Science Elective*‡	3
WEX...	Dynamics of Health and Fitness Experience*	1
		15

\*General Education Elective-see page 72.

† HIS101 History of Western Civilization to the Reformation and HIS102 History of Western Civilization since the Reformation are recommended.

‡ ECO101 Macroeconomics 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:  Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) History (HIS) Literature (LIT) Philosophy and Religion (PHR) World Languages and Cultures (LAN)
Social Sciences	6	Two general education courses (6 cr.) to be selected from two of the following fields:  Economics (ECO) Geography (GEO) Political Science (POL) Psychology (PSY) 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:  Biology (BIO) Chemistry (CHM) 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 following: WEX201, WEX202, WEX204, WEX205, WEX206, WEX208.

\*\* Choose at least one of the following: ANT100; ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

## 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 semester-by-semester sequence.*

#### 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
.....	Social Science Elective*	3
.....	Elective in Professional Concentration	3
		17

#### Second Semester

WRT201	English Composition II	3
WEX...	Dynamics of Health and Fitness Experience*	1
MAT/CIS...	Mathematics/Computer Science Elective*	3
.....	Humanities Electives*	6
.....	Elective in Professional Concentration	3
		16

#### Third Semester

.....	Natural Sciences Elective*	4
.....	Social Science Elective*	3
.....	Humanities Elective*	3
.....	Electives in Professional Concentration	6
		16

#### Fourth Semester

.....	Natural Sciences Elective*	4
.....	Humanities Electives*	6
.....	Electives in Professional Concentration	6-7
		16-17

\* General Education Elective - see page 72.

**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; 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
		17

#### Second Semester

WRT201	English Composition II	3
MAT/CIS...	Mathematics/Computer Science Elective*	3
COM106	TV Production I	3
COM105	Radio Production	3
.....	Humanities Electives*	6
		18

#### Third Semester

COM207	TV Production II	3
COM205	Advanced Radio Production or	
COM208	Directing for Television or	3
COM211	Video Post Production	
WEX...	Dynamics of Health and Fitness Experience*	1
.....	Humanities Elective*	3
.....	Natural Sciences Elective*	4
.....	Social Science Elective*	3
		17

#### Fourth Semester

COM461	Co-op Work Experience (Media)	1
.....	Humanities Electives*	6
.....	Natural Sciences Elective*	4
.....	Social Science Elective*	3
		14

\* General Education Elective - see page 72.

#### Diversity Requirement Applies

## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

### BUSINESS ADMINISTRATION OPTION CODE AS.PS.BUS.ADM

#### 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
		17

#### Second Semester

ACC210	Managerial Accounting	3
MAT/CIS...	Mathematics/Computer Science Elective*	3
WRT201	English Composition II	3
.....	Humanities Electives**	6
.....	Business Administration Elective***	3
		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 Elective†	3
.....	Humanities Elective**	3
.....	Natural Sciences Elective**	4
.....	Social Science Elective**	3
		13

\* General Education Elective in Mathematics/Computer Science – see page 72. 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 72.

\*\*\* Any BUS, or INF101, or BNF201.

† INF101 is recommended.

**Diversity Requirement Applies**

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

#### 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
BUS101	Introduction to Business	3
.....	Humanities Elective**	3
		17

#### Second Semester

ACC110	Financial Accounting	3
WRT201	English Composition II	3
.....	Natural Sciences Elective**	4
.....	Humanities Elective**	3
.....	Social Science Elective**	3
		16

#### Third Semester

ACC210	Managerial Accounting	3
.....	Humanities Elective**	3
.....	Natural Sciences Elective**	4
.....	Social Science Elective**†	3
MAT/CIS...	Mathematics/Computer Science Elective*	3
		16

#### Fourth Semester

ACC202	Intermediate Accounting I	3
WEX...	Dynamics of Health and Fitness Experience**	1
.....	Humanities Elective**	6
BUS...	Business Elective***	3
.....	Free Elective‡	3
		16

\* General Education Elective in Mathematics/Computer Science – see page 72. 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 72.

\*\*\* Any ACC, any BUS (except BUS103), or INF101, or BNF201.

† ECO101 is recommended.

‡ INF101 is recommended.

**Note:** Students in the career program should refer to AAS.BUS.ACCT on page 107.

**Diversity Requirement Applies**

## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

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

#### 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
		17

#### Second Semester

ACC210	Managerial 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 Elective†	3
.....	Humanities Elective**	3
.....	Natural Sciences Elective**	4
.....	Social Science Elective**	3
		13

\* General Education Elective in Mathematics/Computer Science – see page 72. 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 72.

\*\*\* Students should select BUS202, or BUS263, or BUS264.

† 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
		17

#### 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
		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 Elective†	3
.....	Humanities Elective**	3
.....	Natural Sciences Elective**	4
.....	Social Science Elective**	3
		13

\* General Education Elective in Mathematics/Computer Science – see page 72. 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 72.

\*\*\* Students should take one of the following: BUS170, BUS205, BUS208, BUS209, BUS233, BUS234, BNF201, or INF101.

† 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...	Mathematics/Computer Science Elective*	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
ACC110	Financial Accounting	3
		17

#### Second Semester

ACC210	Managerial Accounting	3
MAT/CIS...	Mathematics/Computer Science Elective*	3
WRT201	English Composition II	3
BUS201	Marketing Principles	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 Elective†	3
.....	Humanities Elective**	3
.....	Natural Sciences Elective**	4
.....	Social Science Elective**	3
		13

\* General Education Elective in Mathematics/Computer Science - see page 72. 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 72.

\*\*\* Students should take one of the following: BUS202, BUS233, BUS234, BUS271, or INF101.

† INF101 is recommended.

**Diversity Requirement Applies**

### CRIMINAL JUSTICE OPTION CODE AS.PS.CRIMJ

#### First Semester

CRJ101	Introduction to Criminal Justice	3
CRJ113	The Juvenile Justice Process	3
WEX101	Dynamics of Health and Fitness	2
WRT101	English Composition I	3
.....	Humanities Elective*†	3
.....	Social Science Elective*‡	3
		17

#### Second Semester

CRJ109	Contemporary Issues in Policing	3
WRT201	English Composition II	3
.....	Humanities Elective*†	3
.....	Humanities Elective*†	3
.....	Social Science Elective*‡	3
WEX...	Dynamics of Health & Fitness Experience*	1
		16

#### Third Semester

CRJ105	Police Administration	3
SPE111	Speech Communication	3
.....	Humanities Elective*†	3
.....	Natural Science Elective*	4
.....	Math/Computer Science Elective*	3
		16

#### Fourth Semester

CRJ103	Criminal Law	3
CRJ107	Criminology	3
.....	Natural Science Elective*	4
.....	Math/Computer Science Elective*	3
.....	Humanities Elective*†	3
		16

\* General Education Elective - see page 72.

† Highly Recommend HIS111, HIS112, PHR103

‡ Highly Recommend 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*	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
EDU101	Introduction to Education	3
.....	Social Science Elective*†	3
		17

#### Second Semester

WRT201	English Composition II	3
MAT/CIS...	Mathematics/Computer Science Elective*	3
.....	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*‡	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 72.

† PSY101 General Psychology is recommended.

‡ 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
.....	Humanities Electives**	6
WEX182	Fitness Measurement	3
WEX184	Sports Medicine I - Theory and 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**	1
		17

#### Fourth Semester

.....	Humanities Elective**	3
.....	Natural Sciences Elective**	4
.....	Social Science Elective**	3
WEX183	Programs and Principles of Conditioning	3
		13

\* General Education Elective in Mathematics/Computer Science - see page 72.  
Recommended: MAT130, MAT150, or MAT155

\*\* General Education Elective - see page 72.

#### Diversity Requirement Applies

## ASSOCIATE IN SCIENCE (A.S.) DEGREE IN PROFESSIONAL STUDIES

### JOURNALISM OPTION CODE AS.PS.JOUR

#### First Semester

COM101	Mass Media of Communication	3
WEX101	Dynamics of Health and Fitness	2
MAT/CIS...	Mathematics/Computer Science Elective*	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
.....	Social Science Elective*	3
		17

#### Second Semester

COM206	Writing for the Mass Media	3
WRT201	English Composition II	3
WEX...	Dynamics of Health and Fitness Experience*	1
MAT/CIS...	Mathematics/Computer Science Elective*	3
.....	Humanities Electives*	6
		16

#### Third Semester

COM201	Introduction to Journalism	3
INF115	Desktop Publishing	1
	or	
INF161	Internet Research and Data Handling	
.....	Humanities Elective*†	3
.....	Natural Sciences Elective*	4
.....	Social Science Elective*‡	3
		14

#### Fourth Semester

COM210	Public Relations	3
COM461	Co-op Work Exp (Media)	1
.....	Humanities Electives*	6
.....	Natural Sciences Elective*	4
.....	Free Elective*	3
		17

\* General Education Elective - see page 72.

† PHR102 Contemporary Moral Issues is recommended.

‡ POL101 American Government or POL104 State and Local Government is recommended

Diversity Requirement Applies

### SOCIAL WORK OPTION CODE AS.PS.SOC.WK

#### First Semester

WEX101	Dynamics of Health & Fitness	2
MAT/CIS...	Mathematics/Computer Science Elective*†	3
SPE111	Speech Communication	3
WRT101	English Composition I	3
.....	Social Science Elective*‡	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*†	3
.....	Humanities Electives*	6
SOC102	Introduction to Human Services	3
		16

#### Third Semester

.....	Natural Science Elective*	4
.....	Social Science Elective*◆	3
.....	Humanities Elective*◆◆	3
SOC103	Sociology of the Family	3
SOC113	Social Problems	3
		16

#### Fourth Semester

.....	Natural Science Elective*	4
.....	Humanities Electives*◆◆	6
SOC222	Ethnic & Minority Group Relations	3
	or	
SOC121	Changing Roles of Women	
SOC463	Sociology/Social Work Co-op Work Experience	3
		16

\* General Education Elective - see page 72.

† Recommended: MAT150 Elementary Statistics.

‡ Recommended: PSY101 General Psychology.

◆ Recommended: ECO101 Macroeconomics.

◆◆ 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:  Arts and Media (Art [ART], Mass Communication [COM], Music [MUS], Theatre Arts [THR]) History (HIS) Literature (LIT) Philosophy and Religion (PHR) World Languages and Cultures (LAN)
Social Sciences	3	One general education course (3 cr.) to be selected from the following fields:  Economics (ECO) Geography (GEO) Political Science (POL) Psychology (PSY) Sociology (SOC) and Anthropology (ANT)
Natural Sciences or Mathematics/ Computer Science	3-4	One general education course (3-4 cr.) to be selected from the following fields:  Mathematics/Computer Science (MAT/CIS) Biology (BIO) Chemistry (CHM) 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: Minimum of 42-43 cr.\*\*

Diversity Course Recommendation: 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.\*\*\*

\* 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; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.



# CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN ALLIED HEALTH

### DENTAL HYGIENE CODE AAS.AH.DENTL

Since September 2005, dental hygiene applicants are required to pass a nationally standardized entrance exam for admittance into the program.

#### First Semester

BIO104	Microbiology	4
BIO109	Anatomy and Physiology I	4
DHY101	Oral Hygiene I	3
DHY108	Dental and Oral Anatomy and Physiology	2
DHY109	Oral Embryology and Histology	2
WRT101	English Composition I	3
		<hr/>
		18

#### Second Semester

BIO209	Anatomy and Physiology II	4
WEX101	Dynamics of Health & Fitness	2
DHY201	Oral Hygiene II	3
DHY205	Dental Radiology	3
DHY207	General & Oral Pathology	3
WRT201	English Composition II	3
		<hr/>
		18

#### Summer Session I and II

CHM110	Basic Biochemistry	4
		<hr/>
		4

#### Summer Session II

DHY200	Pharmacology for Dental Hygiene	2
		<hr/>
		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 Experience*	1
		<hr/>
		12

#### Fourth Semester

DHY219	Periodontology II	1
DHY203	Oral Hygiene IV	4
DHY214	Nutrition in Dental Health	2
PSY101	General Psychology	3
SOC101	Sociology	3
SPE111	Speech Communication	3
.....	Humanities Elective*	3
		<hr/>
		19

\* General Education Elective - see page 72.

**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.AH.DMS

#### First Semester

BIO109	Anatomy & Physiology I	4
DMS101	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
		<hr/>
		18

#### Second Semester

BIO209	Anatomy & Physiology II	4
DMS201	Ultrasound Physics & Inst. II	2
DMS204	Introduction to Medical Imaging	1
DMS205	OB/GYN Sonography	3
DMS213	Abdominal Sonography II	3
DMS218	Ultrasound Clinic I (160 hours)	1
WRT201	English Composition II	3
		<hr/>
		17

#### Summer Session I or Summer Session II

DMS219	Ultrasound Clinic II-Abdomen (240 hrs)	2
.....	Humanities Elective*	3
		<hr/>
		5

#### Third Semester

WEX101	Dynamics of Health & Fitness	2
DMS214	Echocardiography	3
DMS220	Ultrasound Clinic III-OB/GYN (240 hrs)	2
DMS226	OB Sonography II	3
DMS229	Vascular Imaging	2
		<hr/>
		12

#### Fourth Semester

DMS221	Ultrasound Clinic IV-Echocardiography (240 hrs)	2
.....	Humanities Elective*	3
DMS227	Echocardiography II	3
DMS228	Advanced Ultrasound Practices	1
.....	Social Science Elective*	3
WEX...	Dynamics of Health & Fitness Exp.*	1
		<hr/>
		13

#### Summer Session I or Summer Session II

DMS222	Ultrasound Clinic V-Vascular (200 hrs)	1
DMS230	Comprehensive Review	3
		<hr/>
		4

\* General Education Elective - see page 72.

**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 ALLIED HEALTH

### HEALTH SCIENCE CODE AAS.H.HLTH.SCI

This curriculum is designed for graduates of one-year, post-secondary programs who hold current certification or licensure in an Allied Health discipline, such as dental assisting, diagnostic medical sonography, licensed practical nursing, medical office assisting, radiography, respiratory technology, and surgical technology.

Certification or licensure must be recognized by the accrediting agencies of the Bergen Allied Health Programs. Thirty credits for certification/licensure will be granted after completion of the degree requirements resulting in 66 credits and an A.A.S. 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
BIO109	Anatomy & Physiology I	4
.....	Humanities Elective*	3
MOA140	Medical Terminology	3
WEX101	Dynamic of Health & Fitness	2
SOC101	Sociology	3
		<hr/>
		18

#### Second Semester

WRT201	English Composition II	3
BIO209	Anatomy and Physiology II	4
.....	Humanities Elective*	3
CHM100	Introduction to Chemistry**	4
WEX...	Dynamics of Health & Fitness Experience*	1
PSY101	General Psychology	3
		<hr/>
		18

\* General Education Elective - see page 72.

\*\* PHY186 General Physics I required of Diagnostic Medical Sonographers as a substitute for CHM100 Introduction to Chemistry

**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 ALLIED HEALTH

### MEDICAL OFFICE ASSISTANT CODE AAS.AH.MOA

#### First Semester

BIO109	Anatomy & Physiology I	4
WEX101	Dynamics of Health & Fitness	2
MOA140	Medical Terminology	3
MOA141	Introduction to Medical Assisting	3
INF100	Keyboarding I	3
WRT101	English Composition I	3
		18

#### Second Semester

BIO209	Anatomy & Physiology II	4
INF119	Document Processing with Microsoft Word	3
MOA240	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
MOA218	Medical Economics	2
MOA241	Clinical Lab Technology	4
MOA243	Medical Office Assistant Externship I (8-12 hours per week)	1
MOA203	Medical Assistant Administrative Procedures I	3
.....	Humanities Elective*	3
		16

#### Fourth Semester

MOA200	Pharmacology for Medical Office Assistants	2
ACC104	Medical Accounting	3
MOA244	Medical Office Assistant Externship II (8-12 hours per week)	1
MOA201	Diagnostic and Procedural Coding	4
MOA204	Medical Assistant Administrative Procedures II	3
PSY101	General Psychology	3
		16

\* General Education Elective - see page 72.

**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 CODE AAS.AH.RAD

#### First Semester

BIO109	Anatomy & Physiology I	4
RAD180	Introduction to Radiography	2
RAD181	Radiography I	5
RAD182	Radiography Clinical I	1
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	3
		15

#### Summer Session I

RAD283	Intermediate Radiography Clinical, 12 weeks at 32 hours per week (384 hours) = 2 credits.	2
		2

#### Third Semester

WEX101	Dynamics of Health & Fitness	2
RAD183	Radiographic Pathology	2
RAD184	Advanced Imaging Equipment and Patient Care Practices	3
RAD280	Image Production & Evaluation	3
RAD285	Radiography III	4
RAD286	Radiologic Clinical III	1
.....	Humanities Elective*	3
		18

#### 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	3
		3

\* General Education Elective - see page 72.

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 ALLIED HEALTH

### RESPIRATORY THERAPY CODE AAS.AH.RESP

#### First Semester

BIO109	Anatomy & Physiology I	4
MAT/CIS	Mathematics/Computer Science Elective*†	3-4
RSP119	Introduction to Respiratory Therapy	4
RSP121	Clinical Externship I	2
RSP200	Pharmacology for Respiratory Therapists	2
WRT101	English Composition I	3
		18-19

#### Second Semester

BIO209	Anatomy & Physiology II	4
CHM112	College Chemistry	4
RSP222	Cardiopulmonary Anatomy & Physiology	4
RSP225	Clinical Externship II 16 hrs/wk = 224 hrs	2
WEX101	Dynamics of Health & Fitness	2
WRT201	English Composition II	3
		19

#### Summer Session

(Based on 6 weeks)

RSP226	Clinical Externship III 40 hrs/wk = 240 hrs	2
		2

#### Third Semester

BIO104	Microbiology	4
RSP240	Diagnostic Monitoring & Patient Assessment	4
RSP229	Mechanical Ventilation	4
RSP122	Clinical Medicine	3
RSP231	Clinical Externship IV 16 hrs/wk = 224 hrs	2
WEX...	Dynamics of Health and Fitness Experience*	1
		18

#### Fourth Semester

RSP227	Management in Health Care	2
RSP241	Pediatric/Neonatal Respiratory Care	3
RSP235	Clinical Externship V 16 hrs/wk = 224 hrs	2
.....	Humanities Electives*	6
.....	Social Science Elective*	3
		16

\* General Education Elective - see page 72.

† Recommended: MAT130, MAT150, MAT155, or MAT180.

**Note:** Students enrolled in this program **ARE REQUIRED** to successfully complete a course in basic algebra if indicated by the Basic Skills Placement Test.

Successful completion of program exit examination required for graduation.

### VETERINARY TECHNOLOGY CODE AAS.H.VET

#### First Semester

WRT101	English Composition I	3
VET102	Introduction to Veterinary Technology	1
VET103	Veterinary Medical Technology	1
BIO115	Vertebrate Anatomy & Physiology I	4
CHM112	College Chemistry	4
WEX101	Dynamics of Health and Fitness	2
		15

#### 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	4
.....	Humanities Elective*	3
		7

#### Third Semester

VET203	Veterinary Nursing I	3
VET207	Diagnostic Imaging	3
VET205	Clinical Laboratory Procedures I	3
VET216	Veterinary Office Management	3
.....	Humanities Elective*	3
		15

#### Fourth Semester

VET214	Veterinary Nursing II	3
VET219	Surgical Assistance & Anesthesia	3
VET217	Clinical Laboratory Procedures II	3
.....	Social Science Elective*	3
WEX...	Dynamics of Health and Fitness Experience*	1
		13

#### Summer

VET218	Farm Animal Nursing	3
VET220	Veterinary Technology Externship I	1
VET221	Veterinary Technology Externship II	1
		5

\* General Education Elective - see page 72.

**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 ART

### COMPUTER ANIMATION CODE AAS.IDT.ANIM

#### First Semester

ART122	Two-Dimensional Design	3
ART126	Introduction to Computer Graphics*	3
ART124	Drawing Fundamentals	
	or	3
ART123	Life Drawing I	
ART105	History of Animation	3
WRT101	English Composition I	3
WEX101	Dynamics of Health & Fitness	2
		<u>17</u>

#### Second Semester

ART226	Letterform and Type	3
ART292	Computer 3D Animation I**	3
ART289	Computer 2D Illustration*	3
ART297	Computer Imaging*	3
WRT201	English Composition II	3
WEX...	Dynamics of Health & Fitness Experience***	1
		<u>16</u>

#### Third Semester

ART290	Computer 2D Animation I**	3
ART293	Computer 3D Animation II**	3
ART260	Graphic Design I	3
.....	Humanities Elective***†	3
.....	Natural Sciences***	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective***	
		<u>15-16</u>

#### Fourth Semester

ART298	Interactive Multimedia*	3
ART291	Computer 2D Animation II**	3
ART271	Portfolio Presentation	2
ART...	Studio Art Elective ‡	
	or	2-3
ART462/463	Co-op Work Experience	
.....	Social Science Elective***	3
.....	Humanities Elective***	3
		<u>16-17</u>

\* Course uses Macintosh computers

\*\* Course uses Intergraph NT in S250 multimedia lab

\*\*\* General Education Elective - see page 72.

† 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

‡ "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 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	
WRT101	English Composition I	3
.....	Humanities Elective**	3
		<u>15</u>

#### 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
		<u>17</u>

#### Third Semester

ART287	Computer Layout I*	3
ART260	Graphic Design I	3
ART...	Studio Art Elective***	3
.....	Humanities Elective***†	3
.....	Natural Sciences**	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective**	
WEX...	Dynamics of Health & Fitness Experience**	1
		<u>16-17</u>

#### 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	2-3
ART462/463	Co-op Work Experience	
.....	Social Science Elective***	3
		<u>16-17</u>

\* Course uses Macintosh computers

\*\* General Education Elective - see page 72.

\*\*\* "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

† 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

**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
		<hr/> 17

#### Second Semester

ACC201	Accounting II	3
WEX...	Dynamics of Health & Fitness Experience**	1
WRT201	English Composition II	3
.....	Social Science Elective**†	3
BUS233	Business Law I	3
.....	Humanities Elective**‡	3
		<hr/> 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...	Mathematics/Computer Science Elective **	
BUS...	Business Elective ♦	3
		<hr/> 16-17

#### Fourth Semester

ACC...	Restricted Accounting Elective ♦♦	3
ACC204	Cost Accounting I***	3
.....	Humanities Elective**	3
BUS...	Business Elective‡	3
ACC462	Co-op Work Exp (Accounting)	2
INF228	Advanced Excel	1
		<hr/> 15

\* The student should choose from INF101 Introduction to Information Technology or INF114 Microsoft Office.

\*\* General Education Elective - see page 72.

\*\*\* Specialized course that may be offered only in the evening.

† ECO101 Macroeconomics is recommended.

†† Class offered only during spring semester

‡ PHR105 recommended.

♦ Choose any BUS course.

♦♦ Restricted Accounting Electives

ACC203 Intermediate Accounting II \*\*\*††

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 96.

**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, CREDIT AND FINANCE CODE AAS.BUS.BANK

#### First Semester

ACC101	Accounting I	3
BUS101	Introduction to Business	3
BUS103	Business Mathematics	3
BNF101	Principles of Bank Operations*	3
WEX101	Dynamics of Health & Fitness	2
WRT101	English Composition I	3
		<hr/> 17

#### Second Semester

ACC201	Accounting II	3
BNF204	Trust Functions & Services*♦	3
WEX...	Dynamics of Health & Fitness Experience**	1
SPE111	Speech Communication	3
WRT201	English Composition II	3
.....	Humanities Elective**	3
		<hr/> 16

#### Third Semester

BUS233	Business Law I	3
BNF201	Principles of Finance*	3
BNF205	Credit and Collection I*‡	3
ECO101	Macroeconomics	3
.....	Natural Sciences**	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective**	
		<hr/> 15-16

#### Fourth Semester

BUS234	Business Law II	3
BNF206	Credit and Collection II*♦	3
INF101	Introduction to Information Technology	3
.....	Free Electives	2-3
.....	Humanities Elective**	3
.....	Social Science Elective**†	3
		<hr/> 17-18

\* Specialized course that may be offered only in the evening.

\*\* General Education Elective - see page 72.

† ECO201 Macroeconomics is recommended.

‡ 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.

## 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**†	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**	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective**	
		15-16

#### Fourth Semester

LGN210	Advanced Medical 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

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 72.

† PHR105 Professional Ethics 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.

### PARALEGAL STUDIES 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
		17

#### Second Semester

.....	Humanities Elective*	3
LGL200	Business Communications for Paralegals†	3
LGL203	Paralegalism and Legal Procedure‡	3
LGL220	Computer Assisted Legal Research	3
WRT201	English Composition II	3
		15

#### Third Semester

.....	Humanities Elective*◆	3
LGL202	New Jersey and Federal Courts†	3
LGL205	Mechanics of Property Transactions‡	3
LGL208	Mechanics of Family Law‡	3
LGL207	Wills and Administration‡	3
.....	Natural Science Elective*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*	
		18-19

#### Fourth Semester

LGL234	Personal Injury and Product Liability‡	3
ACC207	Legal Accounting‡	3
SPE111	Speech Communication	3
LGL206	Mechanics of Commercial Transactions‡	3
LGL462	Co-op Work Experience (Legal Assistant)	2
.....	Dynamics of Health & Fitness Experience*	1
		15

\* General Education Elective - see page 72.

‡ 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.

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](http://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.

# CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN BUSINESS TECHNOLOGIES

### HOTEL/RESTAURANT/HOSPITALITY CODE AAS.BT.HR.CATER

#### CATERING/BANQUET MANAGEMENT OPTION

##### First Semester

BUS101	Introduction to Business	3
BUS103	Business Mathematics	3
HRM101	Intro to Hospitality Management	3
HRM102	Food Protection	3
HRM106	Menu Planning & Nutrition	1
WRT101	English Composition I	3
		<hr/> 16

##### Second Semester

ACC206	Hospitality Accounting	3
WEX101	Dynamics of Health & Fitness	2
HRM103	Professional Food Preparation Techniques	3
HRM205	Restaurant Service Management	3
WRT201	English Composition II	3
HRM462	Co-op Work Experience (Hotel/Restaurant/Hospitality)	2
		<hr/> 16

##### Third Semester

WEX...	Dynamics of Health & Fitness Experience*	1
HRM214	Banquet/Catering Management	2
HRM202	Quantity Food Production Service**	3
HRM203	Beverage Management	2
HRM204	Food Purchasing	2
.....	Humanities Elective*	3
.....	Social Science Elective*	3
		<hr/> 16

##### Fourth Semester

HRM213	Classical Garde-Manger**	3
HRM201	Food & Beverage Cost Control	1
HRM206	Commercial Restaurant Operation***	3
HRM207	Hotel Sales & Convention Planning	1
HRM110	Introduction to Baking	3
.....	Natural Sciences Elective*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*	
.....	Humanities Elective*	3
		<hr/> 17-18

\* General Education Elective - see page 72.

\*\* 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.

### HOTEL/RESTAURANT/HOSPITALITY CODE AAS.BT.HR.HOSP

#### HOSPITALITY MANAGEMENT OPTION

##### First Semester

BUS101	Introduction to Business	3
BUS103	Business Mathematics	3
HRM101	Introduction to Hospitality Management	3
HRM102	Food Protection	3
HRM106	Menu Planning & Nutrition	1
WRT101	English Composition I	3
		<hr/> 16

##### Second Semester

ACC206	Hospitality Accounting	3
WEX101	Dynamics of Health & Fitness	2
HRM103	Professional Food Preparation Techniques	3
HRM205	Restaurant Service Management	3
WRT201	English Composition II	3
HRM462	Co-op Work Exp (H/R/H)	2
		<hr/> 16

##### Third Semester

WEX...	Dynamics of Health & Fitness Experience*	1
HRM104	Front Office Procedures**	2
HRM202	Quantity Food Production Service**	3
HRM203	Beverage Management	2
HRM204	Food Purchasing	2
.....	Humanities Elective*	3
.....	Social Science Elective*	3
		<hr/> 16

##### Fourth Semester

BUS233	Business Law I	3
HRM201	Food and Beverage Cost Control	1
HRM206	Commercial Restaurant Operation***	3
HRM207	Hotel Sales & Convention Planning	1
HRM...	Elective	3
.....	Natural Sciences Elective*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*	
.....	Humanities Elective*	3
		<hr/> 17-18

\* General Education Elective - see page 72.

\*\* 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.BT.INFO

### First Semester

INF101	Introduction to Information Technology	3
INF150	Business Programming Logic ♦	3
INF161	Internet Research and Data Handling	1
BUS101	Introduction to Business	3
WRT101	English Composition I	3
INF...	Programming Language Fundamentals**	3
		16

### Second Semester

INF...	Advanced Programming Languages***♦♦	3
INF114	Microsoft Office	3
INF208	Systems Analysis and Design ♦♦	3
WEX101	Dynamics of Health and Fitness	2
WRT201	English Composition II	3
.....	Social Sciences Elective*	3
		17

### Third Semester

ACC101	Accounting I	3
INF160	Networking Technologies and Data Communications	3
INF217	Database for Business Applications	3
INF253	Technical Communications	3
.....	Humanities Elective*	3
WEX...	Dynamics of Health & Fitness Experience	1
		16

### Fourth Semester

ACC201	Accounting II	
	or	3
BUS271	E-Commerce	
INF228	Excel for Problem Solving	1
INF239	Applications Development ♦♦	3
INF...	Restricted INF Elective†	3
.....	Natural Science Elective*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*‡	
.....	Humanities Elective*	3
		16-17

\* General Education Elective - see page 72.

♦ 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 (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

### † 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
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

### ‡ Mathematics or Natural Science Elective

One of the following mathematics electives is strongly recommended.

MAT150	Elementary Statistics
MAT180	Precalculus: College Alg and Trig
MAT223	Calculus for Managerial and Soc 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, Maintenance 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 Network Administrator	3
INF258	TCP/IP	3
WEX...	Dynamics of Health & Fitness Experience*	1
.....	Social Sciences Elective*	3
		16

#### Fourth Semester

INF228	Excel for Problem Solving	1
INF256	Topics in Networking	3
INF257	Network Troubleshooting	3
INF267	Network Security	3
.....	Humanities Elective*	3
.....	Natural Sciences Elective*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*†	
		16-17

\* General Education Elective - see page 72.

† One of the following mathematics electives is strongly recommended:

MAT150	Elementary Statistics
MAT155	Finite Mathematics
MAT223	Calculus for Managerial & Social Sciences
MAT280	Calculus I

**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 CODE AAS.BT.OFF.TECH

#### First Semester

INF100	Keyboarding I*	3
INF101	Introduction to Information Technology	3
INF114	Microsoft Office	3
INF161	Internet Research and Data Handling	1
BUS101	Introduction to Business	3
WRT101	English Composition I	3
		16

#### Second Semester

INF119	Document Processing with Microsoft Word	3
INF140	Introduction to Multimedia	3
INF146	Web Development Using HTML	
	or	3
INF147	Web Development Using Dreamweaver	
BUS103	Business Mathematics	3
BUS105	Business Communications	3
WEX101	Dynamics of Health & Fitness	2
		17

#### Third Semester

ACC120	Computerized Accounting	3
INF...	Restricted INF Electives***	3
WEX...	Dynamics of Health & Fitness Experience**	1
WRT201	English Composition II	3
.....	Humanities Elective**	3
.....	Natural Sciences**	
	or	3-4
MAT/CIS	Mathematics/Computer Science Elective**	
		16-17

#### Fourth Semester

INF214	Administrative Technology	2
INF215	Office Simulation	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 for Keyboarding I

\*\* General Education Elective - see page 72.

\*\*\* Restricted INF Electives:

INF108	PC Upgrade, Maintenance and Diagnosis
INF150	Business Programming Logic
INF160	Networking Technologies and Data Communications
INF217	Database for Business Applications
INF253	Technical Communications

**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
		15

#### Second Semester

INF114	Microsoft Office	3
INF140	Introduction to Multimedia	3
INF146	Web Development Using HTML	3
INF246	Advanced Visual Basic for Business **	3
WEX101	Dynamics of Health and Fitness	2
WRT201	English Composition II	3
		17

#### Third Semester

INF151	Microcomputer Database: Access	
	or	1
INF245	Database: SQL, Structured Query Language	
INF160	Networking Technologies and Data Communications	3
INF253	Technical Communications	3
BUS101	Introduction to Business	3
WEX...	Dynamics of Health & Fitness Experience***	1
.....	Humanities Elective***	3
.....	Social Sciences Elective***	3
		17

#### Fourth Semester

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
MAT/CIS...	Mathematics/Computer Science***†	
		16-17

\* Class offered only during fall semester

\*\* Class offered only during spring semester.

\*\*\* General Education Elective - see page 72.

† One of the following Mathematics electives is strongly recommended:

MAT150	Elementary Statistics
MAT155	Finite Mathematics
MAT223	Calculus for Managerial & Social Sciences
MAT280	Calculus I

**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 HUMAN SERVICES

### CORRECTIONAL STUDIES CODE AAS.HS.CORR

#### First Semester

CRJ101	Introduction to Criminal Justice	3
CRJ102	Introduction to Corrections	3
WEX101	Dynamics of Health and Fitness	2
WRT101	English Composition I	3
.....	Humanities Elective * †	3
.....	Social Sciences Elective* ‡	3
		17

#### Second Semester

CRJ108	Topics in Criminal Justice	3
CRJ113	The Juvenile Justice Process	3
POL104	State and Local Government	3
SOC101	Sociology	3
WEX...	Dynamics of Health & Fitness Experience *	1
WRT201	English Composition II	3
		16

#### Third Semester

CRJ107	Criminology***	3
CRJ114	Correctional Administration**	3
LIT220	Social Aspects of Literature	3
SOC103	Sociology of the Family	3
.....	Natural Sciences*	
	or	3-4
MAT/CIS	Mathematics/Computer Science*	
		15-16

#### Fourth Semester

CRJ115	Correctional Law**	3
PSY102	Abnormal Psychology	
	or	3
PSY104	Psychology of Human Relations	
SOC113	Social Problems	3
SPE111	Speech Communication	3
.....	Humanities Elective ◆	3
.....	Free Elective ◆◆	2
		17

\* General Education Elective - see page 72.

\*\* CRJ102 Highly Recommended Before Taking This Course

\*\*\* SOC101 Highly Recommended Before Taking This Course

† HIS112 Highly Recommended

‡ PSY101 Highly Recommended

◆ PHR102 Highly Recommended

◆◆ 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.

### EARLY 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*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*	
		15-16

#### 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
		17

#### Third Semester

EDU124	Curriculum Materials & Methods	3
EDU130	Infants and Toddlers in Early Childhood Education	3
EDU220	Early Childhood Education II	3
EDU222	Supervised Field Work Experience I	2
EDU223	Field Work Seminar I	2
WEX...	Dynamics of Health & Fitness Experience*	1
PSY201	Child Psychology	3
		17

#### 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
SOC103	Sociology of the Family	
	or	3
SOC120	Sociology of Gender Roles	
.....	Humanities Elective*	3
		16

\* General Education Elective - see page 72.

**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 HUMAN SERVICES

### 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*†	3
.....	Social Science Elective*‡	3
		17

#### Second Semester

CRJ109	Contemporary Issues in Policing	3
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*	1
WRT201	English Composition II	3
		16

#### 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...	Mathematics/ Comp. Science Elective*	
		15-16

#### Fourth Semester

CRJ103	Criminal Law**	3
CRJ107	Criminology***	3
PSY102	Abnormal Psychology	
	or	3
PSY104	Psychology of Human Relations	
SPE111	Speech Communication	3
.....	Free Elective◆	2
.....	Humanities Elective◆◆	3
		17

\* General Education Elective - see page 72.

\*\* CRJ101 Highly Recommended Before Taking This Course

\*\*\* SOC101 Highly Recommended Before Taking This Course

† HIS112 Highly Recommended

‡ PSY101 Highly Recommended

◆ CRJ462 Highly Recommended

◆◆ PHR102 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.



# CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (A.A.S.) PROGRAMS IN INDUSTRIAL and DESIGN TECHNOLOGIES

### DRAFTING AND DESIGN TECHNOLOGY CODE AAS.IDT.DRFT

#### First Semester

DFT107	Drafting I	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
		<hr/> 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*†	3
.....	Natural Sciences*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*	
		<hr/> 17-18

#### Third Semester

DFT209	Engineering Graphics II	3
DFT215	Mechanical Building Systems I	3
DFT262	Architectural Drafting	3
DFT265	Architectural Practice & Planning	3
HRT104	Landscape Plants & Materials I	2
WEX...	Dynamics of Health & Fitness Experience*	1
		<hr/> 15

#### Fourth Semester

DFT216	Mechanical Building Systems II	
	or	2-3
DFT462	Co-op Work Exp (Drafting)	
DFT263	Architectural Design	3
DFT266	Materials & Methods of Construction	
	or	3
MFG119	Manufacturing Design I	
DFT282	Technical Illustration	3
HRT113	Principles of Landscaping	3
		<hr/> 14-15

\* General Education Elective-see page 72.

† ART103 Art History since the Renaissance 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.

### ELECTRONICS TECHNOLOGY CODE AAS.IDT.ELECT.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
		<hr/> 15

#### Second Semester

ELC201	AC-Circuit Analysis	4
ELC203	Electronics I	4
WRT201	English Composition II	3
WEX...	Dynamics of Health & Fitness Experience*	1
.....	Natural Sciences*	
	or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*†	
		<hr/> 15-16

#### Third Semester

ELC204	Electronics II	4
ELC214	Communication Systems I	4
PHY186	General Physics I	4
.....	Humanities Elective*	3
.....	Social Science Elective*	3
		<hr/> 18

#### Fourth Semester

ELC215	Communication Systems II	4
PHY286	General Physics II	4
CHM100	Intro to Chemistry	4
.....	Humanities Elective*	3
WRT202	Technical Writing	
	or	2-3
ELC462	Co-op Work Experience (Electronics)	
		<hr/> 17-18

\* General Education Elective - see page 72.

† 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
CHM100	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
		14-16

\* General Education Elective - see page 72.

\*\* Restricted Electives: DFT208, DFT211, DFT282, MFG119, MAT150, 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 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*†	3
		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 (Manufacturing Technology)	4
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#### Third Semester

MFG224	Advanced Tooling, Materials, and Automation	4
MFG225	Process Improvement	2
DFT210	Computer Aided Drafting I or	3
MFG119	Manufacturing Design I	3
.....	Humanities Elective*‡	3
WEX101	Dynamics of Health & Fitness	2
		14

#### Fourth Semester

MFG226	Methods, Fixture Design, and Estimating	3
MFG227	CNC Programming	4
.....	Natural Sciences* or	3-4
MAT/CIS...	Mathematics/Computer Science Elective*	3
.....	Humanities Elective*◆	3
WEX...	Dynamics of Health & Fitness Experience*	1
		14-15

\* General Education Elective - see page 72.

† SOC101 recommended

‡ 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
		<u>18</u>

#### Spring Semester

BIO209	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
		<u>18</u>

#### Fall Semester

BIO104	Microbiology	4
SOC101	Sociology	3
WEX101	Dynamics of Health & Fitness	2
NUR284	Maternal-Child Health Nursing	5
NUR285	Mental Health Nursing	4
		<u>18</u>

#### Spring Semester

.....	Humanities Electives*	6
WEX...	Dynamics of Health & Fitness Experience*	1
NUR290	Adult Health Nursing C	4
NUR291	Adult Health Nursing D	4
		<u>15</u>

\* General Education Elective - see page 72.

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 in the fourth level of the nursing curriculum. 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. There is a fee for the administration of this exam.

**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 I*	4
PSY101	General Psychology*	3
WRT101	English Composition I*	3
		<u>10</u>

#### Summer Semester

WEX101	Dynamics of Health and Fitness*	2
SOC101	Sociology*	3
		<u>5</u>

#### Fall Semester

BIO209	Anatomy and Physiology II*	4
PSY106	Developmental Psychology*	3
WRT201	English Composition II*	3
		<u>10</u>

#### Spring Semester

NUR181	Physical Assessment	1
NUR182	Pharmacology for Nurses	1
NUR183	Basic Concepts & Skills of Nursing	6
		<u>8</u>

#### Summer Semester

WEX...	Dynamics of Health and Fitness Experience**	1
BIO104	Microbiology	4
		<u>5</u>

#### Fall Semester

NUR281	Adult Health Nursing A	4
NUR282	Adult Health Nursing B	4
		<u>8</u>

#### Spring Semester

NUR284	Maternal-Child Health Nursing	5
NUR285	Mental Health Nursing	4
		<u>9</u>

#### Summer Semester

.....	Humanities Electives**	6
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#### Fall Semester

NUR290	Adult Health Nursing C	4
NUR291	Adult Health Nursing D	4
		<u>8</u>

\* Evening Nursing applicants cannot be accepted until general corequisites (8 courses) have been completed. Evening nursing program accepts students for spring only.

\*\* General Education Elective - see page 72.

**Exit Examination:** A nationally standardized examination will be given in the fourth level of the nursing curriculum. 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. There is a fee for the administration of this exam.

**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

<b>Program Prerequisites</b>		
BIO109	Anatomy and Physiology I	4
BIO209	Anatomy and Physiology II	4
PSY101	General Psychology	3
PSY106	Developmental Psychology	3
.....	Transfer of Virtual Community College Bridge Course	3
WRT101	English Composition I	3
WRT201	English Composition II	3
		23
<b>First Semester</b>		
NUR281	Adult Health Nursing A	4
NUR282	Adult Health Nursing B	4
SOC101	Sociology	3
WEX101	Dynamics of Health and Fitness	2
		13
<b>Summer Session</b>		
BIO104	Microbiology	4
		4
<b>Second Semester</b>		
NUR284	Maternal-Child Health Nursing	5
NUR285	Mental Health Nursing	4
.....	Humanities Elective*	3
		12
<b>Third Semester</b>		
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 72.

**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 in the fourth level of the nursing curriculum. 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. There is a fee for the administration of this exam.

**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 MOBILITY TRACK) Code: AAS.NURS.MBL.EVE

<b>Program Prerequisites</b>		
BIO109	Anatomy and Physiology I	4
BIO209	Anatomy and Physiology II	4
BIO104	Microbiology	4
PSY101	General Psychology	3
PSY106	Developmental Psychology	3
.....	Transfer of Virtual Community College Bridge Course	3
SOC101	Sociology	3
WRT101	English Composition I	3
WRT201	English Composition II	3
		30
<b>First Semester</b>		
NUR281	Adult Health Nursing A	4
NUR282	Adult Health Nursing B	4
		8
<b>Second Semester</b>		
NUR284	Maternal-Child Health Nursing	5
NUR285	Mental Health Nursing	4
		9
<b>Summer Session I</b>		
WEX101	Dynamics of Health and Fitness	2
.....	Humanities Elective*	3
		5
<b>Summer Session II</b>		
WEX...	Dynamics of Health and Fitness Experience	1
.....	Humanities Elective*	3
		4
<b>Third Semester</b>		
NUR290	Adult Health Nursing C	4
NUR291	Adult Health Nursing D	4
		8

\* General Education Elective - see page 72.

**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 in the fourth level of the nursing curriculum. 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. There is a fee for the administration of this exam.

**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 I	3
CHM100	Introduction to Chemistry	4
BIO101	General Biology	4
ENV112	Environmental Health	3
WEX101	Dynamics of Health & Fitness	2
		<hr/> 16

#### Second Semester

WRT201	English Composition II	3
MAT150	Elementary Statistics	3
ENV121	Environmental Microbiology	4
.....	Science Elective*	3-4
.....	Humanities Elective**	3
		<hr/> 16-17

#### Third Semester

TEC180	Problem Solving Using Technology	4
ENV109	Environmental Policy Compliance & Regulation	3
BIO227	Principles of Ecology	4
.....	Humanities Elective**	3
.....	Social Science Elective**	3
		<hr/> 17

#### Fourth Semester

ENV122	Environmental Chemistry	4
WEX201	Dynamics of Health & Fitness Experience**	1
TEC190	Introduction to Geographic Information Systems	4
ENV113	Human Environment	3
.....	General Electives (see below)	4
		<hr/> 16

\* Recommended Sciences Electives:

BIO203	General Biology II	4
BIO107	Introduction to Human Biology	4
ESC113	Geology	4
PHY185	Introduction to Physics	4
ESC112	Climatology	4
ESC114	Meteorology	4

\*\* General Education Elective - see page 72.

#### General Electives

ENV461	Co-op Work Experience	1-4
ENV114	Field Lab Experience	1
ANT101	Cultural Anthropology	3
BUS101	Introduction to Business	3
DFT107	Drafting I	2
GE0101	World Geography	3
LGL101	Fundamentals of Law	3
COM210	Public Relations	3
BUS105	Business Communications	3
POL107	Introduction to Politics	3
PHR102	Contemporary Moral Issues	3
PSY104	Psychology of Human Relations	3
PSY122	Ethology and Environmental Psychology	3
SOC105	Urban Sociology	3
WEX125	Introduction to Recreation	3
WRT202	Technical Writing	3

**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

### HORTICULTURE CODE AAS.ST.HORT

#### First Semester

HRT101	Fundamentals of Horticulture	3	
HRT102	Plant Science	4	
HRT104	Landscape Plants and Materials I	2	
WRT101	English Composition I	3	
.....	Natural Sciences Elective*†		
	or	3-4	
MAT/CIS...	Mathematics/Computer Science Elective*		
		15-16	

#### Second Semester

HRT120	Interior Landscaping	3	
HRT232	Plant Propagation	4	
HRT233	Landscape Plants & Materials II	4	
WRT201	English Composition II	3	
.....	Social Science Elective*	3	
		17	

#### Third Semester

WEX101	Dynamics of Health & Fitness	2	
HRT103	Turf and Grounds Management	3	
HRT112	Pests of Ornamental Plants	4	
HRT204	Landscape Graphics	2	
HRT236	Horticulture Marketing & Sales	3	
.....	Humanities Elective*	3	
		17	

#### Fourth Semester

BUS101	Introduction to Business Administration	3	
WEX...	Dynamics of Health and Fitness Experience*	1	
HRT113	Principles of Landscaping	3	
HRT...	Restricted HRT Elective‡	3-4	
HRT462	Co-op Work Exp (Hort)	2	
.....	Humanities Elective*	3	
		15-16	

\* General Education Elective - see page 72.

† Recommended Natural Sciences/Mathematics Elective:

BIO108 Introduction to Environmental Biology

‡ Restricted HRT Elective:

HRT115	Floral Design	3	
HRT119	Greenhouse Operation and Production	3	
HRT235	Landscape Site Analysis and Construction	3	
HRT237	Arboriculture/Plant Health Care	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.

### SCIENCE LABORATORY TECHNOLOGY CODE AAS.ST.SLT

#### First Semester

BIO101	General Biology	4	
CHM140	General Chemistry I	3	
CHM141	General Chemistry I-Lab	1	
DFT107	Drafting I	2	
WRT101	English Composition I	3	
MAT150	Elementary Statistics	3	
		16	

#### Second Semester

BIO104	Microbiology	3	
CHM212	Organic and Biochemistry	4	
.....	Humanities Elective*	3	
WRT201	English Composition II	3	
TEC180	Problem Solving Using Technology	4	
		17	

#### 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	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	
TEC203	Work Based Learning in Science and Technology	1	
WEX...	Dynamics of Health and Fitness Experience*	1	
		16	

\* General Education Elective - see page 72.

**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

### 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	CAD I	3	
TEC180	Problem Solving Using Technology	4	
WRT101	English Composition I	3	
		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	
		9	

\* General Education Elective - see page 72.

**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 CODE CERT.COMP.SCI

##### First Semester

CIS165	C++ Programming I*	3	
WRT101	English Composition I	3	
.....	General Education Elective**	3	
		9	

##### Second Semester

CIS265	C++ Programming II	3	
CIS271	Computer Organization and Assembly Language I	3	
.....	General Education Elective**	3	
		9	

##### Third Semester

CIS277	Data Structures & Algorithms	3	
MAT/CIS...	Mathematics/Computer Science Electives***	9	
		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 72. 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, MAT286, 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
		15

#### 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
		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\*\*\*

\* Course uses custom workstations running Windows XP.

\*\* General Education Elective - see page 72.

\*\*\* Course uses Macintosh computers.

**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.COMP.GRAPH

#### First Semester

ART287	Computer Layout I*	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
		15

#### 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 72.

\*\*\* 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.

## ONE-YEAR CERTIFICATES

### COMPUTER TECHNICAL SUPPORT CODE CERT.COMP.SUPPORT

#### First Semester

INF101	Introduction to Information Technology	3
INF108	PC Upgrade, Maintenance and Diagnosis	3
INF114	Microsoft Office	3
INF160	Networking Technologies and Data Communications	3
INF163	Internet Concepts and Applications	3
WRT101	English Composition I	3
		18

#### 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 72.

**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 CODE CERT.CULN.ARTS

#### First Semester

HRM102	Food Protection	3
HRM103	Professional Food Preparation Techniques	3
HRM110	Introduction to Baking	3
HRM106	Menu Planning and Nutrition	1
HRM108	Computer Applications for Hospitality Industry*	1
WRT101	English Composition I	3
.....	General Education Elective**	3
		17

#### Second Semester

HRM202	Quantity Food Production Service***	3
HRM206	Commercial Restaurant Operation*	3
HRM212	International Cuisine*	3
HRM213	Classical Garde-Manger***	3
HRM220	Advanced Baking Techniques*	3
.....	General Education Elective**	3
		18

- \* Class offered only during spring semester  
\*\* General Education Elective - see page 72.  
\*\*\* 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.

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 **MUST** obtain written permission from the Divisional Dean to waive or otherwise adjust prerequisites where indicated.

### E-COMMERCE: BUSINESS EMPHASIS CODE CERT.ECOMM.BUS

#### First Semester

BUS101	Introduction to Business	3
	or	3
BUS170	Small Business Management	3
BUS103	Business Mathematics	3
INF146	Web Development Using HTML	3
INF163	Internet Concepts and Applications	3
BUS105	Business Communications	3
WRT101	English Composition I	3
		18

#### Second Semester

BUS210	E-Marketing	3
BUS211	Internet Law	3
BUS271	E-Commerce	3
BUS205	Entrepreneurship	3
.....	General Education Elective*	3
.....	Information Technology Elective (2-3 credits)**	2-3
		17-18

\* General Education Elective - see page 72.

\*\* 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.

### 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* †	3-4
		15-16

#### Second Semester

ENV121	Environmental Microbiology	4
ENV113	Human Environment	3
TEC180	Problem Solving Using Technology	4
TEC190	Introduction to GIS	3
.....	General Education Elective* ‡	3-4
		17-18

\* General Education Elective - see page 72.

† BIO101 General Biology I is recommended

‡ CHM100 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.

## ONE-YEAR CERTIFICATES

### EXERCISE SCIENCE CODE CERT.EXER.SCI

#### First Semester

BUS101	Introduction to Business	3
BIO103	The Human Body	4
WEX159	Cardiopulmonary Resuscitation & Emergency First Aid	3
WEX164	Exercise Science	3
WRT101	English Composition I	3
		16

#### 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
		15

**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 CODE CERT.FLORAL

#### First Semester

HRT102	Plant Science	4
HRT115	Floral Design	3
HRT232	Plant Propagation	4
WRT101	English Composition I	3
.....	General Education Elective*	3
		17

#### Second Semester

HRT119	Greenhouse Operation and Production	3
HRT120	Interior Plantscaping	3
HRT234	Commercial Floral Design & Management	4
HRT462	Co-op Work Experience (Horticulture)	2
.....	Business Elective**	3
.....	General Education Elective*	3
		18

\* General Education Elective - see page 72.

\*\* 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 Contracting	1
HRT103	Turf and Grounds Management	3
WRT101	English Composition I	3
		17

#### 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
		15-17

\* General Education Elective - see page 72.

\*\* 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.HOSP.MGMT

#### First Semester

HRM101	Introduction to Hospitality Management	3
HRM102	Food Protection	3
HRM103	Professional Food Preparation Techniques	3
HRM104	Front Office Procedures*	2
HRM108	Computer Applications for the Hospitality Industry**	1
WRT101	English Composition I	3
.....	General Education Elective***	3
		18

#### Second Semester

HRM201	Food and Beverage Cost Control	1
HRM203	Beverage Management	2
HRM204	Food Purchasing	2
HRM205	Restaurant Service Management	3
HRM207	Hotel Sales and Convention Planning	1
HRM214	Banquet & Catering Management	2
HRM217	Issues in the Hospitality Industry	2
HRM462	Co-op Work Experience (Hotel/Restaurant/Hospitality)	2
.....	General Education Elective***	3
		18

\* Class only offered during fall semester

\*\* Class only offered during spring semester.

\*\*\* General Education Elective - see page 72.

**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.

The Hospitality Management Certificate Program is designed to aid those working professionals who wish to increase their job value or refresh their 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 **MUST** obtain written permission from the Divisional Dean to waive or otherwise adjust pre-requisites where indicated.

## ONE-YEAR CERTIFICATES

### LANDSCAPING CODE CERT.LAND

#### First Semester

BUS101	Introduction to Business	3
DFT107	Drafting I	2
HRT103	Turf and Grounds Management	3
HRT104	Landscape Plants and Materials I	2
HRT130	Landscaping Contracting	1
HRT...	Restricted HRT Elective (see below)	3-4
WRT101	English Composition I	3
		17-18

#### Second Semester

INF101	Introduction to Information Technology	3
HRT113	Principles of Landscaping	3
HRT204	Landscape Graphics	2
HRT233	Landscape Plants and Materials II	4
HRT235	Landscape Site Analysis & Construction	3
.....	General Education Elective*	3
		18

#### Restricted HRT Electives:

- HRT101 Fundamentals of Horticulture
- HRT102 Plant Science
- HRT112 Pests of Ornamental Plants
- HRT120 Interior Landscaping
- HRT236 Horticulture Marketing and Sales

\* General Education Elective - see page 72.

**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.

### MEDICAL OFFICE ADMINISTRATIVE ASSISTANT CODE CERT.MOAA

#### First Semester

INF119	Document Processing with Microsoft Word *	3
MOA140	Medical Terminology	3
MOA141	Introduction to Medical Assisting	3
MOA203	Medical Assistant Administrative Procedures I	3
MOA218	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
		16

#### 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: MUS121, MUS122, MUS123, MUS124, MUS125, MUS126, MUS127, MUS128, MUS140, MUS141, MUS142, MUS143

\*\* General Education Elective - see page 72.

\*\*\* Restricted Electives: MUS132, MUS150, MUS118, 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.

### MUSIC TECHNOLOGY 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*	1
.....	General Education Elective**	3
		17

#### 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
		17-18

\* Instrumental or vocal ensembles: MUS121, MUS122, MUS123, MUS124, MUS125, MUS126, MUS127, MUS128, MUS140, MUS141, MUS142, MUS143

\*\* General Education Elective - see page 72.

\*\*\* 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.



## ONE-YEAR CERTIFICATES

### NETWORKING AND WEB DEVELOPMENT CODE CERT.NET.WEB

#### First Semester

INF101	Introduction to Information Technology	3
INF114	Microsoft Office	3
INF160	Networking Technologies and Data Communications	3
INF163	Internet Concepts and Applications	3
WRT101	English Composition I	3
.....	General Education Elective*	3
		18

#### Second Semester

INF140	Introduction to Multimedia	3
INF146	Web Development Using HTML	3
INF228	Excel for Problem Solving	1
INF232	Windows Client	3
	or	3
INF254	Unix for the Network Administrator	3
BUS271	E-Commerce	3
INF...	Restricted Elective (See Below)	3
		16

\* General Education Elective - see page 72.

Restricted Electives: Courses cannot duplicate as Restricted Electives when selected as requirements in the second semester.

INF107	Minicomputer Operations
INF232	Windows Client
INF252	Windows Server
INF254	UNIX for the Network Administrator
INF258	TCP/IP
INF267	Network Security

**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 CODE CERT.OFF.TECH

#### Prior to Semester I or by Credit-By-Exam

INF100	Keyboarding I*	3
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#### First Semester

INF101	Introduction to Information Technology	3
INF114	Microsoft Office	3
INF161	Internet Research and Data Handling	1
BUS101	Introduction to Business	3
WRT101	English Composition I	3
Elective	General Education Elective**	3
		16

#### Second Semester

INF119	Document Processing with Microsoft Word	3
INF146	Web Development Using HTML	3
	or	3
INF147	Web Development Using Dreamweaver	2
INF214	Administrative Technology	1
INF228	Excel for Problem Solving	1
INF...	INF Restricted Elective ***	3
BUS103	Business Mathematics	3
		15

\* Credit-by-exam tests are available for Keyboarding I

\*\* General Education Elective - see page 72.

\*\*\* Restricted INF Electives:

INF108	PC Upgrade, Maintenance and Diagnosis
INF150	Business Programming Logic
INF160	Networking Technologies and Data Communications
INF217	Database for Business Applications
INF253	Technical Communications

**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 CODE CERT.RAD.THERAPY

#### First Semester

RTT110	Introduction to Radiotherapy and Patient Care Management	2
RTT120	Radiation Therapy Practices I	4
RTT130	Radiation Biology and Safety	3
RTT150	Principles of Diagnostic Radiation Physics	3
RTT121	Radiation Therapy Clinical Practicum I	2
Elective	General Education Elective*	3
		17

#### Second Semester

RTT200	Survey of Diseases	3
RTT210	Dosimetry and Treatment Practices	3
RTT220	Radiation Therapy Practices II	4
RTT230	Quality Control and Instrumentation	2
RTT221	Radiation Therapy Clinical Practicum II	2
.....	General Education Elective*	3
		17

#### Third Semester

RTT222	Radiation Therapy Clinical Practicum III	2
		2

\* General Education Elective - see page 72.

**Note:** Students enrolled in this program **ARE 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 I*	3
INF101	Introduction to Information Technology	3
BUS105	Business Communications	3
WRT101	English Composition I	3
		18

#### Second Semester

ACC120	Computerized Accounting	3
BUS201	Marketing Principles	3
BUS205	Entrepreneurship*	3
BUS233	Business Law I	3
BUS271	E-Commerce	3
	or	3
BUS204	Principles of Salesmanship	3
.....	General Education Elective**	3
		18

\* Specialized course that may be offered only in the evening or online.

\*\* General Education Elective - see page 72.

**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

### SURGICAL TECHNOLOGY CODE CERT.SURG

#### First Semester

BIO109	Anatomy & Physiology I	4
SUR101	Principles of Surgical Technology I	6
SUR102	Surgical Technology Externship I 2 days or 16 hrs/wk x 15 wks	2
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 3 days or 24 hrs/wk x 15 wks	2
.....	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.
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\*General Education Elective - see page 72.

**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 accredited Diagnostic Medical 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 Instrumentation	2
DMS117	Introduction to Vascular Imaging	2
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
DMS-232	Essentials in Arterial Ultrasound	3
DMS-233	Clinical Experiences I	1
Elective	General Education Elective*	3
		13

#### Summer Session

DMS234	Vascular Clinical Seminar	3
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\*General Education Elective - see page 72.

### UNITED STATES STUDIES CODE CERT.US

#### First Semester

WRT101	English Composition I	3
SPE111	Speech Communication	3
HIS111	U.S. History to Reconstruction	3
POL101	American Government	3
.....	Restricted Elective (see below)	3
		15

#### Second Semester

WRT201	English Composition II	3
LIT201	American Literature I	3
LIT202	American Literature II	3
HIS112	U.S. History Since Reconstruction	3
.....	Restricted Elective (see below)	3
		15

#### Restricted Electives:

BUS101	Introduction to Business
CRJ101	Introduction to Criminal Justice
ECO101	Macroeconomics
ECO201	Microeconomics
EDU101	Introduction to Education
WEX101	Dynamics of Health and Fitness
WEX201	Aerobic Dance (Dynamics of Health & Fitness Experience)
HIS113	History of 20th Century U.S. to W.W.II
HIS114	History of 20th Century U.S. Since W.W.II
HIS116	Themes in U.S. History (Women in American History)
HIS117	Themes in U.S. History (N.J. & Bergen County)
HIS144	Contemporary American Issues & Problems
LIT215	Black Literary Voice in America
COM101	Mass Media of Communications
MUS105	A History of Jazz in America
MUS110	Music, Art and Drama
POL104	State & Local Government
POL106	Themes in U.S. History (Modern American Presidency)
PHR102	Contemporary Moral Issues
PHR105	Ethics in Business and Society
PSY101	General Psychology
PSY121	Comparative Psychology
PSY201	Child Psychology
SOC105	Urban Sociology
SOC120	Sociology of Gender Roles
SOC121	The Changing Roles of Women
SOC222	Ethnic & Minority Group Relations
THR101	Introduction to Theatre

**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

## BIOTECHNOLOGY CODE COA.BIO.TECH

### First Semester

BIO101	General Biology I	4
CHM140	General Chemistry I	3
CHM141	General Chemistry Laboratory I	1
		<hr/> 8

### Second Semester

BIO210	Introduction to Biotechnology	4
MAT150	Elementary Statistics	3
		<hr/> 7

### Third Semester

BIO211	Introduction to Bioinformatics	3
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**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 CODE COA.MUSC.COMM.PROD

### First Semester

MUS131	Class Piano I	2
MUS150	Electronic Music I	3
MUS152	Music Business I	3
MUS...	Performance Ensemble Elective*	1
		<hr/> 9

### Second Semester

MUS231	Class Piano II	2
MUS151	Computer-Based Recording I	3
MUS252	Music Business II	3
MUS...	Performance Ensemble Elective*	1
		<hr/> 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	3
		<hr/> 6

### Second Semester

ENV122	Environmental Chemistry	4
ENV121	Environmental Microbiology	4
		<hr/> 8

**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.

## GEOGRAPHIC INFORMATION SYSTEMS (GIS) CODE COA.GIS

### First Semester

TEC190	Introduction to Geographic Information Systems	3
TEC191	Introduction to Mapping and Cartography	3
		<hr/> 6

### Second Semester

TEC293	Advanced Geographic Information Systems	3
TEC292	Introduction to Remote Sensing	3
		<hr/> 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 CODE COA.MFTG.TOOLING

### First Semester

MFG122	Machine Tool Principles I	3
DFT107	Drafting I	2
DFT210	Computer Aided Drafting I	3
		<hr/> 8

### Second Semester

MFG119	Manufacturing Design I	3
MFG222	Machine Tool Principles II	3
		<hr/> 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.

## MANUFACTURING DESIGN CODE COA.MFTG.DESIGN

### First Semester

MFG119	Manufacturing Design I	3
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### Second Semester

MFG219	Manufacturing Design II	3
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### Third Semester

MFG220	Manufacturing Design III	3
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### Fourth Semester

MFG221	Manufacturing Design IV	3
		<hr/> 12

**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

## PROFESSIONAL COOKING CODE COA.PROF.COOK

HRM102	Food Protection	3
HRM103	Professional Food Preparation Techniques	3
HRM110	Introduction to Baking	3
HRM220	Advanced Baking Techniques*	3
HRM213	Classical Garde Manger**	3
HRM212	International Cuisine*	3
		<u>18</u>

\* Offered only in the spring

\*\* Offered only in the fall

**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.

## REAL ESTATE CODE COA.REA

### First Semester

BUS101	Introduction to Business	3
REA101	Principles of Real Estate*	3
		<u>6</u>

### Second Semester

REA202	Zoning, Planning and Land Use	3
REA203	N.J. Environmental Regulations	3
REA204	Real Estate Leasing*	2
REA205	Real Estate Finance	1
		<u>9</u>

\* 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
		<u>10</u>

### Second Semester

RAD253	Magnetic Resonance Imaging Clinical Practicum	1
RAD254	Computerized Tomography	1
		<u>2</u>

All students must be registered/licensed radiographers [RT(R)/LXT] in good standing to enroll in this program.

**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.



This section contains an alphabetical listing by course letter code of all courses offered at the college.

<b>ACC</b>	ACCOUNTING	<b>LAN</b>	WORLD LANGUAGES & CULTURES
<b>ALH</b>	ALLIED HEALTH	<b>LGL</b>	PARALEGAL STUDIES
<b>ALP</b>	AMERICAN LANGUAGE PROGRAM	<b>LGN</b>	LEGAL NURSE CONSULTANT
<b>ANT</b>	ANTHROPOLOGY	<b>LIT</b>	LITERATURE
<b>ART</b>	ART	<b>MAT(CIS)</b>	MATHEMATICS & COMPUTER SCIENCE Also see courses listed under the Information Technology (INF) designation.
<b>BIO</b>	BIOLOGICAL SCIENCES	<b>MFG</b>	MANUFACTURING TECHNOLOGY
<b>BNF</b>	BANKING, CREDIT & FINANCE	<b>MOA</b>	MEDICAL OFFICE ASSISTANT
<b>BUS</b>	BUSINESS ADMINISTRATION	<b>MUA</b>	APPLIED MUSIC
<b>CHM</b>	CHEMISTRY	<b>MUS</b>	MUSIC
<b>CIN/THR</b>	CINEMA	<b>NUR</b>	NURSING
<b>CIS (MAT)</b>	COMPUTER SCIENCE Also see courses listed under the Information Technology (INF) designation.	<b>PHR</b>	PHILOSOPHY & RELIGION
<b>COM</b>	MASS COMMUNICATION	<b>PHY</b>	PHYSICS
<b>CRJ</b>	CRIMINAL JUSTICE	<b>POL</b>	POLITICAL SCIENCE
<b>DAN</b>	DANCE	<b>PSY</b>	PSYCHOLOGY
<b>DFT</b>	DRAFTING & DESIGN	<b>RAD</b>	RADIOGRAPHY
<b>DHY</b>	DENTAL HYGIENE	<b>REA</b>	REAL ESTATE
<b>DMS</b>	ULTRASOUND/DIAGNOSTIC MEDICAL SONOGRAPHY	<b>RSP</b>	RESPIRATORY THERAPY
<b>EBS</b>	ENGLISH BASIC SKILLS	<b>RTT</b>	RADIATION THERAPY
<b>ECO</b>	ECONOMICS	<b>SOC</b>	SOCIOLOGY
<b>EDU</b>	EDUCATION	<b>SPE</b>	SPEECH COMMUNICATION
<b>ELC</b>	ELECTRONICS TECHNOLOGY	<b>SUR</b>	SURGICAL TECHNOLOGY
<b>ENV</b>	ENVIRONMENTAL TECHNOLOGY	<b>TEC</b>	TECHNOLOGICAL SCIENCES
<b>ESC</b>	EARTH SCIENCES	<b>THR</b>	THEATRE
<b>GEO</b>	GEOGRAPHY	<b>TRV</b>	TRAVEL & TOURISM
<b>HIS</b>	HISTORY	<b>VAS</b>	VASCULAR TECHNOLOGY
<b>HRM</b>	HOTEL/RESTAURANT/HOSPITALITY	<b>VET</b>	VETERINARY TECHNOLOGY
<b>HRT</b>	HORTICULTURE	<b>WEX</b>	WELLNESS & EXERCISE SCIENCE
<b>INF</b>	INFORMATION TECHNOLOGY Also see courses listed under Computer Science and Mathematics (CIS/MAT) designations.	<b>WRT</b>	WRITING
<b>IST</b>	INTERDISCIPLINARY STUDIES		

## 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. Areas 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 – ALLIED HEALTH

**ALH-100 Introduction to Health**

**Careers** explores the health care delivery system and provides an overview of health careers. The course is designed to give the student accurate insight into the roles that the various practitioners contribute to the health care delivery system. Opportunity for on campus observational experiences will be provided. 1 lecture, 1 credit

**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 credits  
Prerequisite: Satisfactory completion of one semester of an allied health certificate program or one year of an allied health degree program or by permission of the Department Head.

# ALP-ART

## 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, ALP-006, ALP-007

### ALP-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, ALP-006, 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-006  
Pre- 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 credit

### ALP-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, ALP-043, 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, ALP-043, ALP-044

### ALP-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 computer-assisted learning program is provided on an individual, prescriptive basis.  
1 lecture, 1 non-degree credit

### ALP-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, ALP-053, 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 non-chronological 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  
}General 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 Africa 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 Post-Impressionism), 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 two-dimensional 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 credits

**ART-181 Photography I** introduces camera handling and basic b and w 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 35mm 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

\* Macintosh computers are used in these courses.

\*\* Custom workstations running Windows XP are used in these courses.

**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: Minimum 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 knowledgeable in typography wishing to expand their skills in a hands-on creative manner. Students design and set type for advertising, publishing and corporate business problems. 2 lectures, 2 labs, 3 credits  
Prerequisite: ART-226



## ART-BIO

**\*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 ART-293, 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 CD-ROM 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 one-hour seminar at Bergen. Student's work experiences are supervised by Bergen faculty members. Co-op job-placement 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 Monera, 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  
}General 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  
}General 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  
}General 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  
}General 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, medicine, and conservation efforts.  
3 lectures, 3 labs, 4 credits  
}General 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  
}General 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 medaka 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 knowledge 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 credits  
Prerequisites: 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 in-house 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, CREDIT & FINANCE**

**BNF-101 Principles of Bank Operations** presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may acquire a broad and operational perspective.  
3 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-BUS

**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-204 Trust Functions and Services** presents a complete picture of the services rendered by institutions engaged in the trust business. It provides an introduction to the services and duties involved in trust operations, with an emphasis on the business and legal aspects of the trust function.

3 lectures, 3 credits

Prerequisite: BNF-101

**BNF-205 Credit and Collection Principles I** is an introduction to the importance of credit in business and presents the basic principles of credit. Emphasis is placed on the general uses made of credit and the critical need of the business world for credit.

3 lectures, 3 credits

Prerequisite: BUS-101

**BNF-206 Credit and Collection Principles II** considers the use of financial statements, financial ratios, and the balance sheet relationships related to the making of credit decisions. Policies and procedures for handling collections are studied. Other topics such as bankruptcy, factors, finance companies, and banks are studied.

3 lectures, 3 credits

Prerequisite: BNF-205

### **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 college-approved 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 credits

Prerequisite: BUS-101

### **BUS-202 International Marketing**

introduces the student to the global marketing environment and to the diverse factors which shape it. Topics of discussion include product, pricing, promotion, and distribution decisions as they relate to the international marketplace for goods and services.

3 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 overview of the functions and fundamentals of purchasing and materials management. Among the topics to be covered are specifications and standardization, sources of supply, negotiations, quality control, inventory management, traffic, receiving, storage, and other requirements of the Certified Purchasing Management 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 web-based marketing strategy; conducting primary and secondary marketing research; web-design criteria; web-based 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-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 non-science 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).  
}General 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.  
}General 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 CHM-100 challenge exam. Recommended Corequisite: CHM-141 and MAT-045  
}General Education Course

## CHM-CIS

**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  
}General 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), CHM-112 or CHM-140 or by permission of the Department Head.

**CHM-240 General Chemistry II** is the second course of a two-semester sequence of general chemistry. Topics covered include intermolecular forces, properties of solutions, chemical kinetics, equilibrium, thermodynamics, acids and bases, and electrochemistry. 3 lectures, 3 credits  
Prerequisite: CHM-140  
Recommended Prerequisite: CHM-141  
Recommended Corequisite: CHM-241  
}General 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, NMR, 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, NMR, 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  
}General 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)  
}General 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 MAT-035 or MAT-045 or equivalent by testing.  
}General Education Course

**CIS-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 MAT-035 or MAT-045  
}General Education Course  
By permission of the Department Head or the Computer Science Coordinator, properly prepared students may instead register for CIS-265 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-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 in C++** 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 credits  
Prerequisite 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 supervised by a faculty member who must approve all student placements. Co-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-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 credits

**COM-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 newspaper 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, newspapers, 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-CRJ

**COM-208 Directing for Television** is an introduction to television directing and to the pre-production steps necessary to the creation of a television program. The theoretical development of formats, lighting, set determinations, and crew selection are considered. Students are required to direct a variety of television program formats. 3 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 COM-106 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. CRJ-101 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. Methods 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 between security and law enforcement functions. Such security concerns as unlawful intrusion, retail theft, internal theft, and other crimes, which seriously threaten the business community, are also discussed. The scope and nature of fire prevention and safety are reviewed in a non-technical manner. 3 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-the-job experience, students can acquire the practical expertise and knowledge needed to pursue a career in this field. Students are supervised by a faculty member, and job placement assistance is available through the Cooperative Education Office.

**CRJ-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, 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 credits  
Prerequisites: BIO-209, DHY-108, and DHY-109



# DHY-DFT

**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, Bergen Community College is registered 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

 **DFT-208 Engineering Graphics I** is designed to acquaint the student with various types of graphic solutions to engineering and drafting problems. Special attention is given to orthographic projection as it relates to solving graphical space problems. Extensive problem-solving involving points, lines, and planes, and aids to students' visualization process for advanced drafting, 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  
Prerequisites: DFT-207, DFT-208

 **DFT-210 Computer Aided 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

 **DFT-211 Computer Aided Drafting II** continues the work of CAD I and covers intermediate and advanced level CAD skills. Included in this course will be file management, blocks, attributes, isometric 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

 **DFT-212 Computer Aided Drafting III** provides continued study of advanced CAD technologies, giving students a complete hands-on experience with three dimensional photorealistic and presentation graphics.

2 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

 **DFT-216 Mechanical 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

 **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-265

 **DFT-263 Architectural 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

 **DFT-266 Materials and 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 – ULTRASOUND/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, DMS-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, DMS-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, DMS-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: DMS-201, DMS-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, DMS-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

## **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 competency-based clinical education system. 1 credit, 160 hours  
Prerequisites: DMS-101, DMS-102, DMS-113, DMS-115  
Corequisites: DMS-201, DMS-204, DMS-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 competency-based clinical education system. 2 credits, 240 hours  
Prerequisites: DMS-204, DMS-205, DMS-213, 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 IV- Echocardiography**

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-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: DMS-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, DMS-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. 1 credit, 3 labs  
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-232 Essentials in Arterial Ultrasound**

will provide the student with the in-depth essentials needed for imaging and non-imaging evaluation of the peripheral 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 extremities, 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 hours  
Prerequisites: 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 supervision 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 credits

### ECO – 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-101

**ECO-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-ENV

### EDU-130 Infants and Toddlers in Early Childhood Education

**Settings** surveys the psychological and educational development of infants and toddlers. Program development in the child care setting is explored. Existing program models in infant-toddler education are studied. 3 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 credits  
Corequisite: 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 Experience II

is a continuation of Supervised Field Work Experience I. The field placement is at a different site with a different age group than that assigned in Supervised Field Work 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 TECHNOLOGY

### ELC-100 Introduction to Electronics Technology

presents an orientation to the various specialties within the field, their interrelationships, and their range of applications. The course also covers introductory 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 multiple-loop 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 AC-circuits 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, field-effect transistors and circuits, thyristors, 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 covers AM 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-the-job 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 credits

### ENV-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-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 knowledge 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  
}General 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  
}General 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  
}General 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  
}General Education Course

## GEO – GEOGRAPHY

**GEO-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  
}General 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  
}General 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 the Napoleonic 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  
}General Education Course

## HIS-HRM

**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  
}General 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  
}General 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 credits

**HIS-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-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  
}General 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  
}General 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 Mexico. 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  
}General 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 Mideast 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  
}General 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 service 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-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 hands-on laboratory settings are studied.  
1 lecture, 2 labs, 2 credits  
Prerequisite: 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, Mexican, and American cuisine are considered.  
2 lectures, 2 labs, 3 credits  
Prerequisite: HRM-103

## HRM-213 Classical Gardener

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-INF

**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 credits

**HRT-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, and 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 credits  
Prerequisite: 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 supervised work experience program which includes paid employment at an approved horticultural establishment and attendance at a weekly seminar. The course is designed to provide students with opportunities to learn and to practice skills under professional guidance. The area of placement will depend upon the students' backgrounds and interests. 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-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/O) interfaces; printer classes; basic networking 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** 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. Knowledge of word processing is helpful.  
2 labs, 1 credit

**INF-119 Document Processing with Microsoft Word** 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** 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 Microcomputer Spreadsheet: Excel** is a hands-on experience of a state-of-the-art electronic spreadsheet. The course will provide step-by-step instruction in the various commands necessary for spreadsheet creation and the manipulation and management of spreadsheets. All lab work is done on a 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** 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 Markup 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 viewing. 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-You-Get 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 Mathematics testing.  
Recommended corequisite: INF-101  
(To be successful in this course, students should adhere to the recommendation.)

**INF-151 Microcomputer Database: Access** is a hands-on experience of a relational database management system. The course entails developing database management projects starting with the design of the structure of a database, entering and editing data, designing multitable queries, and creating forms and reports. Various techniques of database applications development will be implemented. All work will be done on a 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 C/C++ operators, constructs, and functions. Topics covered include language version differences, definition of variables; math, relational, and logical operators; decisions; while and for loops; C/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 INF-163).  
(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, multi-programming, and interactive computing. By using a standard UNIX text editor with hands on practice, students learn major UNIX commands and how to interact with the UNIX command processor.  
2 labs, 1 credit

# INF

## **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; network 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 in-depth 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 credit

## **INF-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 news-group 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, news-groups, 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 Networking 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 vector-drawing tools. This project-based course will include preparation of documents such as letters, memos, flyers, reports, tables, charts, single-page spreadsheets and short screen-based 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 credits  
Prerequisites: 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 Technology**

focuses on the organizational requirements necessary to be productive in a modern office. Topics presented in class include scheduling, electronic communications, records management, travel and conference planning, research and organization of business data, use of electronic office equipment, and general office procedures.  
1 lecture, 2 labs, 2 credits  
Prerequisite: INF-101

## **INF-215 Office 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.  
2 lectures, 2 lab, 3 credits  
Prerequisites: (INF-120 and INF-124, and INF-151 and INF-119) or by permission of Department Head

## **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**

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-224 Advanced C++ Programming for Business**

is a continuation of C/C++ Programming for Business. Students code business application programs in a complete object-oriented environment applying advanced concepts such as templates, inheritance, polymorphism, C style input/output streams, object-pointers, functions, the persistence of objects, and attributes.  
2 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, 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**

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 credit  
Prerequisite: 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-246

**INF-249 Visual C++ for Windows with MFC** provides the C++ programmer with effective hands-on instruction in developing Visual 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 C++ for developing stand-alone interactive applications. 2 lectures, 2 labs, 3 credits  
Prerequisite: INF-224 or by permission of the Department Head

**INF-251 Advanced Access** will focus on using the more powerful features of 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 network 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 computer-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 Windowing 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-IST

## INF-257 Network

**Troubleshooting** establishes the methodologies and tools necessary to proactively troubleshoot computer networks. Topics covered include: methods for identification and repair strategies for network faults caused by user, hardware, and software problems; disaster recovery and backup plans; network 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 networks 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 hands-on 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 INF-163) 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 data-driven 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 server-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 Area 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 coursework 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, LMI, 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 Network 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-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 technology 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, networked 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. (Must 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 learning 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 credit  
Prerequisite: 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 credit  
Prerequisite: 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 credit  
Prerequisite: 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:

<b>Years of study</b>	<b>Register In</b>
Up to one year	Level I courses (e.g., <b>French I</b> )
Two years	Level II courses (e.g., <b>French II</b> )
Three or more	Level III courses (e.g., <b>Intermediate French I</b> )

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.** Admission is by permission of the Academic Coordinator or the Dean of Arts and Humanities.

**LAN-011 Directed Studies in French** is a program of computer-assisted individualized instruction 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 audio-lingual 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  
]General 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  
]General 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  
]General Education Course

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**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  
}General 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 credits

**LAN-118 German for Business and Industry** is designed for students, secretaries, and other personnel in the fields of international business and industry. It emphasizes practical vocabulary, technical terminology, and oral and written communication in the world of commerce and industry. Students learn professional translating techniques and the proper use of specialized dictionaries and other reference materials in English and German.

3 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  
}General 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  
}General 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.  
}General 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.  
}General 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  
}General Education Course

**LAN-206 French Literature of the 19th Century** is a study of the literary and theatrical works of the French symbolists, the pre-Romantics, Baudelaire, and other 19th century French writers.

3 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 credits  
Prerequisite: LAN-200 or equivalent placement

**LAN-210 German II** offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of German through active class use of vocabulary, grammar, and syntax.

3 lectures, 1 lab, 3 credits  
Prerequisite: LAN-111 with a grade of C or better, or equivalent placement  
}General 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.  
}General 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.  
}General 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  
}General 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 credits  
Prerequisite: 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  
}General 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.  
}General 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 Academic Coordinator.  
}General 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  
}General Education Course

**LAN-224 Advanced Italian Composition** develops the students' ability to write in Italian and emphasizes the relationship between the spoken and written idiom. Letters, reports, creative writing, and expository forms serve as the basis for an in-depth study of advanced Italian grammar. 3 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.  
}General 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  
}General Education Course

**LAN-234 Advanced Spanish Composition** develops the students ability to write in Spanish and emphasizes the relationship between the spoken and written idiom. Letters, reports, creative writing, and expository forms serve as the basis for an in-depth study of advanced Spanish grammar. 3 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 Mexico 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-LGL

**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  
}General 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.  
}General 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  
}General 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 Irish-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  
}General 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.  
}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, Medicare and Medicaid, long-term planning and strategies, protection of the home from creditors and family members, health benefits, social security, and special estate planning for the remarried elderly.  
1 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 lecture, 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 lecture, 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**

(Legal Assistant) requires part-time student employment in a law office, banking institution, court or other law-related position and aims at giving students insight into the methods and procedures used by legal assistants. 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, WRT-101, 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; examination of 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; Medicare and Medicaid; 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, LGL-203, 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, Melville, Dickinson, and Whitman. 3 lectures, 3 credits  
Prerequisite: WRT-101  
}General 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  
}General Education Course

## LIT-MAT

**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  
}General 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  
}General 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  
}General 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  
}General 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 African-American experience. Students read works by such authors as Wheatley, Douglass, Ellison, Hurston, Baldwin, Malcolm X, Morrison, and Walker. 3 lectures, 3 credits  
Prerequisite: WRT-101  
}General 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, Marie de France, Shakespeare, and Milton. 3 lectures, 3 credits  
Prerequisite: WRT-101  
}General 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  
}General 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  
}General 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, Morrison, and Tan. 3 lectures, 3 credits  
Prerequisite: WRT-101  
}General 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: MAT-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 MAT-030 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 B** is a two-semester basic algebra course equivalent in content to and satisfying the requirements of MAT-035. These courses are designed for the student who has not studied algebra previously, or for the student who has found algebra to be a difficult subject. Students who are placed in MAT-035 may elect to enroll in the MAT-031 and MAT-032 sequence.

**MAT-031:** 3 lectures, 3 credits (non-degree) Prerequisite: MAT-011 or equivalent by testing.

**MAT-032:** 3 lectures, 3 credits (non-degree) 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.  
}General 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.  
}General 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.  
}General 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.  
}General 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  
}General 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.  
}General 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.  
}General 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 credits  
Prerequisite: 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: MFG-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/MECHANICA. 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: MFG-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: MFG-220

# MFG-MOA

**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 Measurements 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: MFG-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: MFG-222, MFG-223, DFT-107

**MFG-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: MFG-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 DFT-210 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 graphics 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: MFG-224 and DFT-210 or MFG-119

**MFG-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-257 Introduction to Manufacturing Systems** utilizing 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 MFG-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: MOA-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 MOA-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

Coresquisites: 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 credit

**MUA-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-MUS

**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  
}General 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 credit

**MUS-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-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 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-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 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-247

**MUS-250 Electronic Music II** is a further study and application of synthesizers, computers, and sequencing. It includes MIDI (Musical 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-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 stu-

dents 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-281



## NUR-PHR

**NUR-284 Maternal-Child Health Nursing** is a third level course in the nursing sequence which focuses on family units, reproduction, child-bearing, and the health care needs of infants, children and adolescents to meet universal self-care requirements. 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 Management 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-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 Management 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 NUR-285  
Corequisite: NUR-290

### PHR – PHILOSOPHY & RELIGION

**PHR-101 Introduction to Philosophy** is a study of the basic problems and methods of philosophical inquiry, concentrating on the work of such major thinkers as Plato, Aristotle, Augustine, Aquinas, Descartes, Hume, Kant, Hegel, 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.  
}General 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 between traditional and modern (symbolic) logic; and the nature, scope, and limits of inductive reasoning. 3 lectures, 3 credits  
}General 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 professional-client relationship; the professional-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, Mill, 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  
}General 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  
}General 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 modern 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  
}General 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 theory; 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  
}General Education Course

**PHY-186 General Physics I** is the first half of a two-semester, algebra based physics sequence, and is a study of mechanics (motion, forces, and the conservation laws), waves, sound, and fluids. It covers kinematics, dynamics, energy, momentum, rotation, and the mechanical properties of matter. The laws of physics are investigated and applied to problem solving. 3 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  
}General Education Course

**PHY-280 Physics I** is the first semester of a three-semester, calculus based physics sequence, and is a study of mechanics (motion, forces, and the conservation laws). It covers kinematics, dynamics, statics, energy, momentum, oscillations, gravity, and the properties of solid matter. The laws of 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: MAT-280  
Recommended prerequisite: PHY-185 or one year of High School Physics  
}General 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.  
}General 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: MAT-282  
}General 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  
}General 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, balance-of-power strategies, imperialism, regionalism, polycentrism, and current world issues are analyzed. 3 lectures, 3 credits  
}General 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  
}General 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  
}General 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  
}General 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-PSY

### **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  
]General 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 self-awareness 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 overview 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 psycho-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  
]General 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, cross-cultural 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 hours

**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 territoriality, 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 stressful 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  
]General 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

}General 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 MRI, 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 a 75 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 supervision 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 Therapeutic Modalities** 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

## RAD-RSP

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 competency 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

**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 competency based clinical education. Specialty clinical elective rotations continue. The student will also attend a series of 12 four-hour lectures. The lectures are designed to amplify the students entry level skills as a radiographer. Upon completion of the required 1834 clinical hours and all course work, the student becomes ARRT eligible.

480 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 REA-201 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-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 REA-101

### 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 REA-101

## 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 allied health 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 credit  
Prerequisite: 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. 3 lectures, 3 labs, 4 credits  
Prerequisite: RTT-120  
Corequisite: 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 Hours  
Prerequisite: 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 given 360 hours of clinical experience. 2 credits, 360 Hours  
Prerequisites: RTT-121, RTT-221

**RTT-230 Quality Control and Instrumentation** explores quality control programs and protocols for various radiation therapeutic facilities. There will be an introduction to computing, information processing, computer concepts and various laboratory experiments. 1 lecture, 2 labs, 2 credits  
Prerequisite: RTT-120, RTT-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  
}General 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-SPE

### **SOC-103 Sociology of the Family**

is a study of the oldest and most fundamental social institution. This course analyzes various types of courtship, parenting, human sexuality, marital breakup, and family patterns. Family life is 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  
}General 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 determine 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-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  
}General 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  
}General 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  
}General 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 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-054

**SPE-003 Speaking/Listening III for International Students** is designed for students for whom English is not a native language. This course seeks to expand students' listening skills, language comprehension, and speech fluency and to develop their confidence in the speaking of English. This course should be taken in conjunction with American Language III. 3 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 learn 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: self-awareness, shyness and assertiveness, listening, attraction, conflict, loneliness, 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 BIO-104 or 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 credit  
Corequisites: 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 SUR-102  
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 SUR-102  
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-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 credits  
Prerequisite: 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 credits  
Prerequisites: PHY-186 and TEC-201 or by permission of Department Head

**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-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-VAS

**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 theatre-going assignments.

3 lectures, 3 credits

}General 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 credits

**THR-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 directing 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 Theatre Arts faculty. Credit is based on a predetermined 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 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 B-mode 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** provides an in-depth study of peripheral arterial disease and non-invasive evaluation of it. The student will learn 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, DMS-201, BIO-209

### 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-214

**VAS-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 learn 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 learn 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: DMS-201, VAS-204  
Corequisites: DMS-115, DMS-214, VAS-210, VAS-212

**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 competency based clinical education. 2 credits, 240 hours  
Prerequisites: DMS-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 credits  
Prerequisites: DMS-115, DMS-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 credit  
Prerequisites: 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-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

**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 credits  
Prerequisites: VET-102, VET-103 and admission to the professional component of the program

**VET-112 Veterinary Pharmacology** is a study of pharmacology and its practical applications. This course is designed to give the student a basic understanding of drugs and other substances used in the treatment of disease. Emphasis is on classification of drugs based on their effects and therapeutic usage, sources of drugs, standards and regulations, weights and measures, conversions, labeling, and pharmacy maintenance. In addition, the student studies possible toxicological effects of these drugs and other toxic plants and substances. 3 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 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. 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 lab, 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  
]General 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 an 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 knowledge 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 shot-making 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-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 credits

**WEX-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 exercise-induced trauma. Athletic taping for support of joints and muscles is taught and practiced.  
3 lectures, 3 credits

**WEX-201 Aerobic Dance (Dynamics of Health and Fitness Experience)** is an application of the theories of training and conditioning explored in WEX-101. The course is designed to provide students with opportunities to increase cardiovascular endurance, flexibility, muscular strength, and help reduce stress. Different modes of aerobic training will be explored including dance style movements to music.  
2 labs, 1 credit  
Prerequisite: WEX-101  
]General 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 uses exercise as a stress management technique, in the management/prevention of low-back musculoskeletal problems, for muscular strength and endurance, and for flexibility. An analysis of dietary practices is included.  
2 labs, 1 credit  
Prerequisite: 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  
]General Education Course

## WEX-WRT

**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, cardiovascular, 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 analyzes 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, ALP-063, or by placement exam

}General 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: WRT-101

}General 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 credits Prerequisite: WRT-101

# Directory

The following pages contain a listing of the college's governing boards, administration, faculty, and advisory committees.

## County of Bergen

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**Peter A. Basile**, Coordinator, Manufacturing Technology; Assistant Professor; B.E., The City College, The City University of New York; M.E., Rensselaer Polytechnic Institute

**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 Medical Sonography; Associate Professor; A.A.S., Bergen Community College; R.D.M.S., Ultrasound Institute of John F. Kennedy Medical Center; B.S., Thomas A. Edison State College; M.A., Montclair 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., New York University

**Lucy Caruso-Deane**, Head, Business Dept.; Professor; A.S., Passaic Community College; B.A., Rutgers, The State University of New Jersey; M.B.A., Fairleigh Dickinson University; M.A.T., Montclair State University

**Amy Ceconi**, Coordinator, Respiratory Therapy Technology; Assistant Professor; A.A.S., Westchester Community College; B.A., Pace University; M.A., Seton Hall University

**Carol A. Chovanec**, Coordinator, Radiation Technology Therapy Program; Instructor; B.A., Drew University; M.S., College of Saint Elizabeth

**Amparo G. Coddling**, Coordinator, World Languages and Cultures; Professor; B.A., Universidad de Los Andes; M.S., M.A., University of Kentucky

**George Cronk**, Coordinator, Philosophy and Religion; Professor; B.A., The William Paterson University of New Jersey; M.A., J.D., Rutgers, The State University of New Jersey; Ph.D., Southern Illinois University

**Philip C. Dolce**, Head, Social Sciences Dept.; Professor; B.A., St. John's University; M.A., Ph.D., Fordham University

**Ruth Feigenbaum**, Coordinator, Math 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 New Jersey; M.B.A., M.Phil., Ph.D., New York University

**Paul J. Griffo**, Coordinator, Physical Sciences; Assistant Professor; B.S., M.S., Fairleigh Dickinson University

**Robert Highley**, Coordinator, Biological Sciences; Associate Professor; A.A., Ocean County Community College; B.S., M.S., Montclair State University

**Laurie Hodge**, Head, Arts and Communications Dept. Professor; A.A., College of Virgin Islands; B.S., M.A., New York University; M.A., The New School for Social Research

**Compton Jenkins**, Head, Wellness and Exercise Science Dept.; B.S., Springfield College; M.A., Trenton State College

**William Jiang**, Coordinator, American Language Program; Professor; B.A., Shanghai University; M.S., Ed.D., State University of New York at Albany

**Lawrence Joel**, Coordinator, Paralegal Studies/Legal Nurse Consultant; Assistant Professor; B.A., Boston College; J.D., Catholic University of America

**Matthew King**, Coordinator, Industrial and Design Technologies; Associate Professor; B.S., State University of New York at Oswego; M.A., Ball State University

**William Leonard**, Coordinator, Radiography; Associate Professor; Diploma, Saint Joseph's School of Radiologic Technology; A.A., Tom Brock College; B.A., William Paterson University; M.A., Montclair State University; P.S.E.S., Rutgers, The State University of New Jersey

**Hung I. Lin**, Coordinator, Radiation Therapy; Lecturer; M.D. University of Amazonas

**Joseph Mamatz**, Head, Allied Health Dept., Coordinator, Radiography - Clinical; Instructor; A.A.S., Bergen Community College; B.S., M.A.Ed., Saint Peter's College

**Mauro Marzocco**, Head, Sciences and Technologies Dept.; Professor; B.S.E.E., M.A.T., M.S., Fairleigh Dickinson University; Ed.M., Teachers College, Columbia University

**Florence McGovern**, Coordinator, Accounting/Business Administration; Professor; B.B.A., Pace University; M.B.A., Fairleigh Dickinson University

**Carol Miele**, Head, English Dept.; Professor; B.A., Barnard College; M.A., Middlebury College; M.A.T., Fairleigh Dickinson University; Ed.D., Teachers College, Columbia University

**Robert Muller**, Coordinator, Respiratory Therapy; Professor; B.S., Long Island University; M.A., Montclair State University

**Michael Orlando**, Coordinator, English Basic Skills/AIMS; Professor; B.A., University of Missouri; M.A., State University of New York at Stony Brook

**Lou Ethel Roliston**, Coordinator, English Composition and Literature; Assistant Professor; B.B.A., Baruch College, The City University of New York; M.A., New York University; M.A., Rutgers, The State University of New Jersey

**Elin Schikler**, Coordinator, Communication Arts; Associate Professor; B.A., Hunter College; M.A., Herbert H. Lehman College, The City University of New York

**Sandra Silverberg**, Head, Mathematics and Computer Science Dept.; Professor; B.A., Syracuse University; M.A., New York University; Certificat d'Etudes, Doctorat du 3e cycle, Faculte es Lettres, Poitiers, France

**Harriet Terodemos**, Coordinator, Veterinary Technology; Associate Instructor; B.S., Purdue University

**Arthur Tolve**, Coordinator, Hotel/Restaurant Management; Associate Professor; B.S., Pratt Institute; M.A., New York University; M.A.Ed., St. Peter's College

**Steven W. Toth**, Coordinator, Medical Office Assistant; Associate Instructor; B.S., West Virginia Wesleyan College; Medical Assisting, HoHoKus School

**Joan Verderame**, Coordinator, Surgical Technology; Associate Professor; Diploma, Saint Joseph's Hospital School of Nursing; B.A., Caldwell College; M.A., Montclair State University

**Anita Verno**, Coordinator, Information Technology; Assistant Professor; B.A., University of Rochester, Rochester; M.S., Fairleigh Dickinson University

**Linda Yurkin**, Coordinator, Diagnostic Medical 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 New York; J.D., St. John's University; M.A., Ed.D., New York University

\***Jack Crespin**, Professor Emeritus 1989. Division of Business Administration 1969-1986. B.S., M.A., Ph.D., New York University

\***Paul Karish**, Professor Emeritus 1990. Division of Social Sciences 1968-1978. B.A., Adelphi College; M.A., Columbia University

**Estelle Meislich**, Professor Emeritus 1990. Division of Natural Sciences and Mathematics 1971-1989. B.S., Brooklyn College, The City University of New York; Ph.D., Columbia University

**Horace W. Chandler**, Professor Emeritus 1991. Division of Natural Sciences and Mathematics 1968-1990. B.Ch.E., Cornell University; M.Ch.E., New York University; D.E.Sci., Columbia University

**Joseph W. Ferioli**, Professor Emeritus 1991. Division of Business Administration 1972-1990. B.S., New York University; M.B.A., Fairleigh Dickinson University; Ed.D., New York University; Certified Management Accountant

**Rose M. Battaglia**, Professor Emeritus 1992. Division of Allied Health and Physical Education 1969-1984. B.S., Panzer College; M.S., Montclair State University; Ph.D., University of Utah

\***Seymour N. Lewis**, Professor Emeritus 1992. Division of Natural Sciences and Mathematics 1969-1989. B.A., M.S., University of Wisconsin; M.A., Ph.D., Columbia University

\***Trudy Drucker**, Professor Emeritus 1993. Division of Humanities 1968-1989. B.A., New York University; M.A., Fairleigh Dickinson University; Ph.D., New York University

**Angela Rees**, Professor Emeritus 1993. Division of Allied Health and Physical Education 1969-1990. R.N., Agnes School of Nursing; B.S., Marian College; M.S., St. Louis University

**Carl D. Protta**, Professor Emeritus 1994. Division of Natural Sciences and Mathematics 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., Agnes 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, Mathematics, and Social Sciences 1969-1998. B.A., Fairleigh Dickinson University; Ph.D., New York University

**Dona Singer**, Professor Emeritus 1998. The Sidney Silverman Library 1968-1996. B.A., Syracuse University; M.L.S., University of Michigan; M.A., Seton Hall University

**Elizabeth Wilson**, Professor Emeritus 1999. Division of Science and Health 1972-1998. Diploma, Mountainside Hospital School of Nursing; B.S., Upsala College; M.A., Montclair State University; Ed.D., Rutgers, The State University of New Jersey

**Verla Witt**, Professor Emeritus 1999. Division of Science and Health 1972-1998. B.S., Slippery Rock State College; M.Ed., State University of New 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 LoRusso**, Professor Emeritus 2000. Division of Science and Health 1972-1999. B.S. Fairleigh Dickinson University; M.A., Montclair State University; P.S.C.S., Rutgers, The State University of New Jersey

\***R. Neil Ender**, Professor Emeritus 2001. Division of Business, Mathematics, and Social Sciences 1968-2000. B.S., Manhattan College; M.A., New York University; M.S., Stevens Institute of Technology

**Elizabeth Koster**, Professor Emeritus 2001. Division of Science and Health 1968-2000. B.S., Seton Hall University; M.A., Montclair State University; M.Ed., Teachers College, Columbia University

**Lois A. Sullivan**, Professor Emeritus 2001. Division of Business Technologies 1968-1990. Division of Arts and Humanities 1991-2001; B.A., Montclair State University; M.A., Columbia University

**Bernard Casella**, Professor Emeritus 2002. Division of Business, Mathematics, & Social Sciences, 1968 - 2001. B.A. Hunter College, The City University of New York; M.S., Columbia University; Ed.D., Teachers College, Columbia University; Fellowship Certificate, Postgraduate Center for Mental Health

\***Ann Cunningham**, Professor Emeritus 2002. Division of Arts and Humanities, 1974 -2001. B.S., M.S., Fordham University

**John Sullivan**, Professor Emeritus 2002. Division of Business, Mathematics, & Social Sciences, 1976 - 2001. B.S., M.B.A., Fairleigh Dickinson University

**Alfred McDowell**, Professor Emeritus 2003. Division of Arts and Humanities, 1972 -2002. A.B., Colgate University; M.A.T., Harvard University; M.A., Ph.D., Bowling Green State University

**George Skau**, Professor Emeritus 2003. Division of Business, Mathematics, and Social Sciences 1970 - 2002. B.S., Manhattan College; M.A., Niagara University; Ph.D., St. John's University

\***Paul Marshall**, 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, Mathematics, and Social Sciences 1967-2002. B.S., St. Peter's College; M.A., Montclair State University; Ed.D., Rutgers, The State University of New Jersey

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**Stacey Balkan**, Instructor; B.A., M.A., Montclair State University

**Gregg Biermann**, Assistant Professor; B.A., State University of New York at Binghamton, M.F.A., The San Francisco Art Institute

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**Jessica Datema**, Assistant Professor; B.A., Wheaton College; M.A., Northern Illinois University; Ph.D. Binghamton University

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**Karen Del Colle**, Assistant Professor; B.A., Rutgers, The State University of New Jersey; M.A.T., School for International Training, Brattleboro, Vermont

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**Marilyn Gilroy**, Professor; B.S., Indiana University of Pennsylvania; M.L.S., University of Pittsburgh; M.A., William Paterson University

**Fariba Hajamadi**, Assistant Professor; B.A., Western Michigan University; M.F.A., California Institute of the Arts

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**Laurie Hodge**, Professor; A.A., College of Virgin Islands; B.S., M.A., New York University; M.A., The New School for Social Research

**Douglas Hoehn**, Assistant Professor; B.A., Dakota Wesleyan; M.A., University of Maryland; Ph.D., New York University

**Lynda Icochea**, Professor; B.A., New York University; M.A., Memphis State University; Certificado de Estudios, Universidad de Madrid

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- Margarita Lopez-Bernstein**, Associate Professor; B.A., St. Thomas Aquinas College; M.A., Fairleigh Dickinson University
- Judith Lynch**, Associate Professor; B.A., Marietta College; M.A., West Virginia University
- Bonnie MacDougall**, Professor; B.A., Cedar Crest College; M.A., M.Phil., Ph.D., Columbia University
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- Linda Marcel**, Associate Professor; B.Mus., Brigham Young University; M.Ed., State University of New York at Potsdam; Ed.D., Teachers College, Columbia University
- Sarah Markgraf**, Associate Professor; B.A., Amherst College; M.A., M.Phil., Ph.D., Columbia University
- Lenore Marrocco**, Assistant Professor; B.A., Dunbarton College; M.A.T., Fairleigh Dickinson University
- Elizabeth Marsh**, Associate Professor; B.A., M.A., Montclair State University
- Ronald Mazurek**, Associate Professor; B.A., Montclair State University; M.A., Ph.D., New York University
- Kathryn McGrath**, Instructor; B.A., Indiana University; M.A., Northeastern University
- Carol Miele**, Professor; B.A., Barnard College; M.A., Middlebury College; M.A.T., Fairleigh Dickinson University; Ed.D., Teachers College, Columbia University
- Paul Mindell**, Associate Professor; B.F.A., University of Michigan; M.A.T., Rhode Island School of Design
- Edward Murtha**, Associate Professor; B.A., City College of New York; M.A., Montclair State University; M.A., Jersey City State University
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- Michael Orlando**, Professor; B.A., University of Missouri; M.A., State University of New York at Stony Brook
- Ann Marie Prendergast**, Associate Professor; B.A., Ramapo College; M.A., North Carolina State University
- Tiziana Quattrone**, Assistant Professor; B.A., M.A., Instituto Universitario Orientale; M.A., Fairleigh Dickinson University
- Michael D. Redmond**, Professor; B.A., Northeastern Bible College; M.A., Rutgers, The State University of New Jersey; Ph.D., Drew University
- Donald Reilly**, Assistant Professor; B.A., City College of New York; M.A., University College of Dublin
- Linda Robins**, Professor; B.A., Barnard College, Columbia University; M.A., Middlebury Graduate School in France; M.Phil., New York University; M.A., Montclair State University
- Lou Ethel Roliston**, Assistant Professor; B.B.A., Baruch College, The City University of New York; M.A., New York University; M.A., Rutgers, The State University of New Jersey
- Geoffrey Sadock**, Professor; B.A., Brooklyn College, The City University of New York; M.A., Tufts University; Ph.D., Brown University
- Jared Saltzman**, Associate Professor; B.A., Pace University; M.A., New York University
- Elin Schikler**, Associate Professor; B.A., Hunter College; M.A., Herbert H. Lehman College, The City University of New York
- Francis Schmidt**, Assistant Professor; B.A., State University of New York at Binghamton; M.F.A., The School of the Art Institute of Chicago
- Beth Snyder**, Assistant Professor; B.A., Kalamazoo College; M.A., University of Michigan
- Dennis Testa**, Assistant Professor; B.A., Jersey City State University; M.A., Montclair State University
- Charles Thomas**, Professor; B.A., William Paterson University; M.A., Ed.D., Columbia University
- Andrew Tomko**, Professor; B.A., State University of New York at Albany; M.Phil., Ph.D., Graduate Center, The City University of New York
- Jon Abdullah Yasin**, Professor; B.A., California State University at Hayward; M.P.A., Harvard University; M.Ed., Northeastern University; C.A.G.S., Boston College; Ph.D., Indiana University of Pennsylvania; Ed.D., Columbia University
- Mary Yopez**, Assistant Professor; B.A., City College of New York; M.A., Ph.D., New York University
- James Zorn**, Assistant Professor; B.A., University of Georgia; M.A., The School for International Training; M.A., New 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 Hall University

**Mostapha H. Baligh**, Associate 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 New York; M.S., Long Island University; Ph.D., New York University

**Norman Burns**, Associate Professor; B.S., M.B.A., Fairleigh Dickinson University

- Lucy Caruso-Deane**, Professor; A.S., Passaic County Community College; B.A., Rutgers, The State University of New Jersey; M.B.A., Fairleigh Dickinson University; M.A.T., Montclair State University
- Daniel Chadwick**, Associate Professor; B.S., West Virginia Wesleyan College; M.P.S., Cornell University
- Kyong Chu**, Instructor; B.A., Rutgers, The State University of New York; M.A. State University of New York at Stony Brook
- David Cohen**, Associate Professor; A.A.S., Sullivan County Community College; B.A., Montclair State University; M.S., Rutgers, The State University of New Jersey
- Richard Comerford**, Professor; B.A., M.A., University of Wisconsin, Madison
- Gary Correa**, Assistant Professor; B.S., Tufts University; M.B.A., Pace University
- Bernice Guest**, Assistant Professor; B.S., The State University of New York; M.A., Queens College
- Ursula Parrish Daniels**, Professor; B.A., Ohio Wesleyan University; M.A., Hunter College, The City University of New York; Ed.D., New York University
- Donald Del Nero**, Assistant Professor; B.A., William Paterson University; M.Ed., Monmouth 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**, Assistant Professor; B.A., Queens 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 New Jersey; M.B.A., M.Phil., Ph.D., New York University
- Barry Freeman**, Professor; B.S., University of Vermont; M.B.A., Baruch College, The City University of New York; Ed.M, Ed.D., Teachers College, Columbia University
- Dorothy M. Giglietta**, Assistant Professor; B.A., St. John's University; M.A., State University of New York at Stony Brook
- Dorothy Gleckner**, Associate Professor; A.A., B.S., Fairleigh Dickinson University; M.A., Montclair State University; Ed.D., George Washington University
- Franciska Higham**, Assistant Professor; Candidate, Licentiate, Katholieke Universiteit van Leuven, Belgium
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Bruce Rohsler, Rohsler's Allendale Nursery/Flower Shop  
Fran Ruff, Bergen Community College  
Leslie Scher  
Peter Snell, Cherry Heights Group  
Ted Szczawinski, Bergen County Technical School  
Betty Wiest, New Jersey Landscape Contractors Association

## **Hotel/Restaurant/Hospitality**

Pamela Corsetto-Burns

John Herron

Vikki Kerlick, Personal Chef, Traveling Gourmet

Susan Solomon, Rockland Community College

Arthur Tolve, Bergen Community College

## **Information Technology**

Anthony Delfico

Diana Dlouhy

Alan Fedeli

William Madden, Bergen Community College

Kay Magilavy, Toyota Motor North America, Inc

John Myers, Strategic Business Systems, Inc.

Stephanie Podvesker, Personnel Plus, Temps Plus-

PC Learning Center

Lillian Rosario, Unilever Bestfoods

Mary Vander Porten, UPS

## **Institute for Learning in Retirement**

Ruth C. Brooks

Allen N. Buff

Nancy Buff

Chai Y. Choo

Harriet Engber

Carolyn Garland

Edmund Houlihan

Roland Knuetter

Helen Kremen

Lois Marshall, Bergen Community College

Bernice Pak

Marge Wyngaarden

## **Medical Office Assistant**

Marie Andrezzi

Colleen Civil

Catherine Domitrowsky

Lorriane Griffith

Emanuel A. Lat, M.D.

Nicole Matson, Summit Pediatrics

Hugh E. McGee, Jr.,

Cheryl Pascale

Linda Pettigano

Jeffrey Sololik

Steven W. Toth, Bergen Community College

Linda Vinci

## **Nursing**

Terry Adelgais, Director of Education, Barnert Memorial Hospital

Patricia Ahearn, Hackensack University Medical Center

Barbara Buff, Bergen Community College

Scott Croonquist

Donna D'Amico, Nursing Faculty, William

Paterson College-Wing 140

Beverly Karas, Valley Hospital

Nancy Mericle, Director of Nursing, Christian Health Care Center,

Rose Nagle-Girgenti, Director of Continuing

Education, St. Joseph's Hospital

Janet O'Rourke, Senior VP, Patient Care Services &

Chief Nursing Office, Pascack Valley Hospital

Carrie Polynj, Bergen Community College

Dorothy Romaine

Janet Rubino, Bergen Community College

Marion Rutherford, Nurse Recruiter, Holy Name Hospital

## **Paralegal / Legal Nurse Consultant**

Theresa Charrkas

Linda Cuoco, Chief Nursing Officer,

Valley Hospital

Kimberly Hay

Angela Holahan, Paralegal, Witham & Kozan,

Attorneys at Law

Roger M. Kahn

Melanie Janes, Nachman & Associates Paralegal

Lucille Joel

Lawrence Joel, Bergen Community College

Joe Lopez

Maureen McElroy

Alice W. Meehan, Law Offices of Alice Meehan

Gerald Meisel, Esq., Bergen Community College

Joan Murko, Bergen Community College

Audrey Murphy, Esq., Hackensack Medical Center

David Nachman, Esq., Attorney at Law, Nachman & Associates

Charles A. Nucifora, Criminal Division Mgr, Bergen County Court House

Joan Orseck, Nurse Recruiter, Hackensack

University Medical Center

Conrad Roncati

Douglas Sanchez, Esq., Attorney at Law, Crusier, Mitchell & Sanchez, LLC

Pamela Smaha

Renee Turner, Paralegal, Spinato, Conte & LaRocca

Ann Twomey, Nurse, HPAE

David Zwerling, Esq., Attorney at Law, Zwerling & Altemus

## **Radiography**

Maria Cerbone

Carmen Criscione, Technical Director, Palisades Medical Center

Doug Downs, Technical Administrator,

Meadowlands Hospital

Robert Fladzinski

Marge Galla, Bergen Community College

Joseph F. Inzinna, M.D., Director of Radiology,

Riverside General Hospital

William Leonard, Bergen Community College

Joseph Mamatz, Bergen Community College

Robert Port, M.D., Medical Director, Palisades

General Hospital

Kevin Wudecki, Technical Administrator-Radiology, Bergen Regional Medical Center

## **Respiratory Therapy**

Megan Bacek, Respiratory Therapy Department, Hackensack University Medical Center

Kenneth Capek, Respiratory Therapy Department,

Englewood Hospital

Susan Fischer

Joseph Grof-Tisza, Director of Respiratory

Therapy, Christ Hospital

Rose Litterini

Joseph Manno, M.D.

Bhavikababen Mody

Robert Muller, Bergen Community College

Robert Sigler, Director of Respiratory Therapy,

Pascack Valley Hospital

## **Services for the Disabled**

Frank Appleton, Bergen County Technical Schools/Special Services, Post-Secondary Counselor

Lena Bakir, Bergen Community College

Jean Balutanski, Ramapo College, Office of Specialized Services

Alexis Birdsall Griffiths, Bergen Community College

Nancy Carr, Bergen Community College

Margaret Cook-Levy

John DeWitte, DeWitte & Associates

Eileen Goff, HIP (Heightened Independence & Progress)

Lynn Gold, Bergen Community College

Judy Jouan, Bergen Community College

Jackie Lue Raia, Partnership for Community

Health

Sheryl Millstein, Bergen Community College

Hyacinthe Nkurunziza, Bergen Community College

Beth Pincus, Bergen Community College

Edward Pittarelli, Bergen Community College

Tracy Rand, Bergen Community College

John Reilly, Sage Day

Andrea Schaffel, Bergen Workforce Investment Board

Linda Seidman, Bergen Community College

Shari Stengel, DVRS, Vocational Rehabilitation

Counselor

James Theberry, Director, Bergen County Division on Disability Services

Raymond Welch, Bergen Community College

Warren Williams, Bergen Community College

Dr. Judith K. Winn, President Bergen Community College

Marcia Wyrzten, Bergen Community College

## **Surgical Technology**

Lori Alexis, Bergen Community College

Margaret Canada, Bergen Community College

Birgit Cotti

Herbert Dardik, M.D., Englewood

Hospital

Michelle Demarco

Mary Elizabeth Kipp

Munib Jurri

Mark Sherman, Ph.D.

Michael Tenney

Joan Verderame, Bergen Community College

## **Veterinarian Technology**

Stanley Bladek, Ph.D., Newton Veterinary Hospital

Robin DelBove, Veterinary Technician

Jennifer Grady

Martha Hughes, Science Faculty, Sussex County

Community College

Sharon Kapica, Science Faculty, County College of

Morris

Christy Powell

Cynthia Rockafellow, Ph.D., Bergen Community

College

Harriet Terodemos, Bergen Community College

Brian Voynick, Ph.D., American Animal Hospital

## **Wellness and Exercise Science**

Kevin Emery, Ph.D.

Sidney Hassenfeld

Compton Jenkins, Bergen Community College

Marc F. Jenkins, Ph.D., Islandwide Chiropractic, PC

Peter T. Kofitsas



## TELEPHONE DIRECTORY

### General Offices

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Academic Intervention & Monitoring System (AIMS) .....	201-493-3605
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