



UNION COUNTY COLLEGE

2012-2013 CATALOG
WWW.UCC.EDU

Office Locations & Phone Numbers

College Office Hours

College office hours are 8:30 a.m. through 4:30 p.m. Monday through Friday during the regular fall and spring terms and 8:00 a.m. through 5:00 p.m. Monday through Thursday during the summer terms. Many Student Services offices have extended hours until 7:30 p.m. Monday through Thursday. The Counseling Center and the Assessment Center have additional evening hours. For the most current information, log on to www.ucc.edu or call the specific Department to confirm the hours of operation.

CAMPUS MAIN TELEPHONE NUMBERS

Cranford Campus... (908) 709-7000

Elizabeth Campus... (908) 965-6000

Plainfield Campus... (908) 412-3599

College Contacts

CRANFORD CAMPUS

ACADEMIC TESTING CENTER

Nomahegan Building, N-22
(908) 709-7538

ADMISSIONS/RECORDS/REGISTRATION

MacDonald Hall, First Floor,
(908) 709-7596
E-Mail: Admissions@ucc.edu

BOOKSTORE

Campus Center, (908) 709-7619

COLLEGE LIFE/ATHLETICS OFFICE

Campus Center, (908) 709-7093

COUNSELING SERVICES

Nomahegan Building, (908) 709-7525
TTY: (908) 709-4362
Fax: (908) 709-7110
E-mail: counselingsrv@ucc.edu

Student Assistance Services

(908) 709-7077

Services for Students with Disabilities

Nomahegan Building
(908) 709-7164, TTY: (908) 709-4362

DEAN OF STUDENTS

Nomahegan Building, Counseling
Services, N2-7, (908) 709-7516

EDUCATIONAL OPPORTUNITY FUND (E.O.F.)

Nomahegan Building, (908) 709-7085

FINANCIAL AID OFFICE

McDonald Hall, First Floor
(908) 709-7137
E-Mail: FinancialAid@ucc.edu

PUBLIC SAFETY OFFICE

Nomahegan Building, Room N-31
(908) 709-7152

STUDENT ACCOUNTS OFFICE

MacDonald Hall, First Floor,
(908) 709-7063
E-Mail: StudentAccountsOffice@ucc.edu

STUDENT GOVERNMENT

Campus Center, (908) 709-7074

VETERANS' AFFAIRS

MacDonald Hall, First Floor
(908) 709-7133

ELIZABETH CAMPUS

ADMISSIONS/RECORDS/REGISTRATION

Room 114/115, (908) 965-6050
E-Mail: Admissions@ucc.edu

BOOKSTORE

Lobby, (908) 965-6068

COORDINATOR OF STUDENT SERVICES

Room 132-C, (908) 965-2987
TTY: (908) 355-8825

COUNSELING SERVICES:

Advising/Career/Transfer
Rooms 105-107, (908) 965-6065
E-mail: counselingsrv@ucc.edu

E.O.F., Room 116A, (908) 965-6060

FINANCIAL AID OFFICE

Room 117, (908) 965-2342
E-Mail: FinancialAid@ucc.edu

INSTITUTE FOR INTENSIVE ENGLISH

Room 414, (908) 965-6030

INTERNATIONAL STUDENT ADVISOR

Room 114A, (908) 659-5132

PUBLIC SAFETY OFFICE

Lessner Main Lobby, (908) 965-6070
Kellogg Main Lobby, (908) 659-6159

STUDENT ACCOUNTS OFFICE

Room 116, (908) 965-6058
E-Mail: StudentAccountsOffice@ucc.edu

TRINITAS SCHOOL OF NURSING

Office: (908) 629-5200
Admissions: (908) 709-7518

VETERANS' AFFAIRS

(908) 965-6054

PLAINFIELD CAMPUS

ADMISSIONS/RECORDS/REGISTRATION

Room 108B, (908) 412-3550,
Fax: (908) 791-4965

BOOKSTORE, Building 2, (908) 412-3560

COORDINATOR OF STUDENT SERVICES

Room 108, (908) 412-3580
Fax: (908) 791-4965

COUNSELING SERVICES:

Advising/Career/Transfer
Room 107, (908) 412-3588
Room 105, (908) 791-4911
E-mail: counselingsrv@ucc.edu

E.O.F., (908) 791-4939

FINANCIAL AID OFFICE

Room 108B, (908) 412-3571,
Fax: (908) 791-4965
E-Mail: FinancialAid@ucc.edu

PUBLIC SAFETY OFFICE

Main Building Help Desk,
(908) 412-3595

STUDENT ACCOUNTS OFFICE

Room 108A, (908) 412-3585
E-Mail: StudentAccountsOffice@ucc.edu

SCOTCH PLAINS CAMPUS

ADMISSIONS (REGISTRATION)

Room 42, (908) 709-7000

President's Message:

Welcome to Union!

I am pleased to present Union County College's 2012-13 Catalog.

This Catalog represents our contract with you, our student. If you are new to the College, all of the information contained in this Catalog will pertain to you for as long as you remain continuously enrolled here.

As you will see, the Catalog provides details on how you can be a successful student at Union. Please read and make note of the "Academic Policies" section which outlines your rights and responsibilities as a student.

The "Programs of Study" program provides an important roadmap to your academic endeavors at Union. You will find the courses you need in your pursuit of a specific degree or certificate. Graduating with an Associate of Arts or Associate of Science degree at Union will enhance your chances of transferring seamlessly to a four-year institution, especially within the New Jersey system. Completing all of the requirements of an Associate of Applied Science degree will boost your chances of entering directly into a career when you graduate.

The College's Counseling Department will help you map out a sequence of courses to achieve the degree in whichever discipline you choose to pursue. We have found that taking the courses in the prescribed sequence will benefit you greatly.

Please remember that if you are new to Union, this is your catalog. All of the program information applies to you. For those of you who are returning students but have been away from the College for one semester or more, this Catalog is also your blueprint to success.

Thank you for choosing to be a Union County College student and for pursuing your dream of a college education with us.

Sincerely,



Dr. Margaret M. McMenamin
President
Union County College
The First of New Jersey's 19 Community Colleges,
Founded 1933



Union
County
College

MACKAY
LIBRARY





Getting Started

BECOME A UNION COUNTY COLLEGE
STUDENT & APPLY FOR FINANCIAL AID

... on your college education!

This catalog is filled with information about programs, courses, and educational life at Union County College. To get started, visit us in person or go online to www.ucc.edu and ...

1. Apply for Admission

Complete an online Application for Admissions at www.ucc.edu or complete a paper application which is available from the Admissions Office at any of the College's three campuses.

2. Apply for Financial Aid

Complete your Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov. If you qualify, financial aid can mean free money to go to college! You will need your (and/or your parent's) income tax returns to complete the application for federal and state aid. The College's code is 002643. You must renew this application every year after you complete your taxes.

3. Take the Placement Test

Have you taken the ACCU-Placer yet? All students must take the ACCU-Placer college placement exam or have qualifying SAT scores. For information on the placement test date/times, call (908) 709-7486. If your SAT scores are at least 540 in the critical reading and 530 in math, you will be exempt from placement testing.

4. Meet with an Advisor or Counselor

Do you know what major your career choice requires? Research the career you will be studying for in college. This helps prevent many course changes, and it keeps you focused on the correct college classes! Early advising is a great way to prepare for college. Discuss a degree plan, a course schedule and a transfer plan if necessary. The more informed you are the better your college experience will be!

5. Register for Classes!

Register online at www.webservices.ucc.edu. You can search the online course schedules, register for classes, and even make payments online. Registration is also available in person; you'll need your student ID number to register.

6. Pay Tuition and Fees

Tuition and fees must be paid by the posted due date (or covered by Financial Aid) or your classes may be dropped. Deferred payment plans are available for fall and spring semesters.

7. Pick up a Parking Permit and Purchase your Textbooks

Your parking permit can be purchased when you pay for your classes at the Student Accounts Office and will be given to you then. And, once you have your schedule, just go to the Campus Bookstore to purchase your books. If you have Financial Aid that covers the cost of books, refer to your award letter for information on book vouchers.





Choosing a college major is one of the most important decisions you'll make.

Start by asking yourself some questions:

- ... which high school subjects did I enjoy?
- ... what type of assignments interested me?
- ... what's hard for others but easy for me?

If you're still undecided or think you might change your mind, remember that UNION County College offers a variety of programs. You can change majors and not have to change schools.

A PROGRAM OF STUDY is the list of courses you'll take to complete your degree. The college offers over 75 programs of study detailed on the following pages. Note that acceptance into certain programs is competitive. If you're interested in nursing, for example, be certain you have completed all the qualifications needed for acceptance.

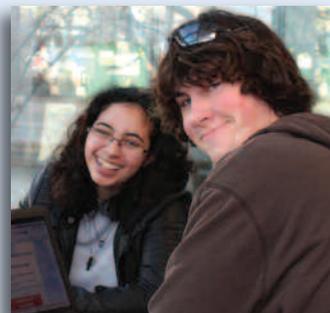
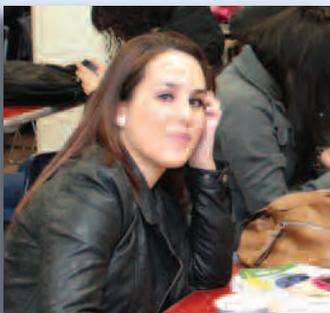
One of the myths behind choosing a major is that it locks you into a career path. Your college major is just one of many factors that can shape your career path.

English majors go on to medical school; philosophy majors lead major corporations; and math majors go into careers as varied as sports, entertainment, and politics.

Most employers look for college graduates who have demonstrated that they are problem solvers, critical thinkers, and effective communicators.



A national study has found that community college graduates who are seniors at four-year colleges achieve a Grade Point Average (GPA) substantially higher than their fellow seniors who attended that college from the beginning of their freshman year.



Union County College offers three Associate degrees:

- **Associate in Arts (AA)**
- **Associate in Science (AS) and**
- **Associate in Applied Science (AAS)**

Each degree is designed to be completed within two years of study if you take the program as shown in the curriculum layout. As an incoming student, though, you'll take a placement test before registering for your first semester. This isn't an admission test – it's to determine whether you need refresher work before entering college level courses. A two year plan may become two and a half years – even three – depending on how much remedial course work you need to complete your degree.

Students with associate degrees earn nearly \$400,000 more in additional lifetime income over the course of their careers. This is 37% more than people with only a high school diploma or GED.

Source: NJ Council of County Colleges Return on Investment Brochure



Associate in Arts (AA)

This is a transferable degree to a four-year college or university for completing a Bachelors degree. Your course of study will include liberal arts, science and the humanities. You'll complete most of the four-year institution's general education requirements and many prerequisite courses needed for your major. You will then be admitted as a college junior as long as you've completed a matching associate level degree. In other words, Business AA to Business BA.

If you choose a New Jersey public four-year college or university, your Union County College Associate degree will ensure admittance with junior year status. If you have a particular transfer college in mind, you'll want to check that four-year college's requirements.

An AA program of study parallels the first two years of a BA program. It is usually less specialized than an Associate of Science (AS), and is awarded in majors like languages, literature, history, and the humanities.

Associate in Science (AS)

As an AS degree student, you'll take fewer general education classes, and more career oriented course work. The curriculum will be in technical or scientific fields; the degree is typically awarded in biological and physical sciences and requires more 200 level classes than an AA degree.

These programs are transferable to four-year institutions provided the degree matches the four year college's program of study. If you choose a New Jersey public four-year college or university, you will be admitted with junior year status after successfully completing your AS.



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

AAS degrees are career oriented programs designed to give you the expertise needed for an entry level job when you complete your degree. The AAS degree includes professional courses for a specific field and has a limited number of general education courses.

Career areas include the technologies, allied health, and various business and computer related professions. These programs are designed for students seeking employment immediately upon graduation. The degree usually takes two years to complete, and online distance-learning options are available to make the degree even more accessible and convenient.

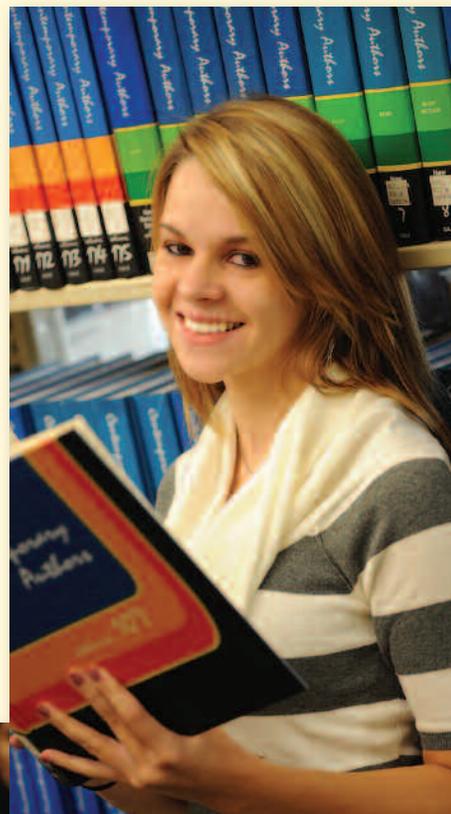


Associate Degree

OVER 75 PROGRAMS OF STUDY TO EARN YOUR

Associate in Arts Degree

Liberal Arts



Choosing Liberal Arts as your major is not just another way to say “undecided.”



Selecting this major takes initiative and determination. If you are passionate about learning and want to spend your college years exploring new ideas, consider majoring in liberal arts.

Most liberal arts courses include a great deal of reading, writing, and discussion, and classes tend to be small. You'll gain critical reasoning skills, learn to

communicate effectively, and understand relationships across broad fields of knowledge.

With a major in the liberal arts, you'll explore your options and create your own career path. You'll pick up valuable career skills including a sophisticated vocabulary, intellectual skills, reasoning, and judgment.

A major in liberal arts offers an overview of the arts, sciences, and humanities. You can study modern languages, music, English, history, social sciences, math, political science, and many other disciplines.

Like general studies, liberal arts degrees are appealing to employers who are looking for someone with a proven ability to think about multiple topics. From archaeologist, or museum curator to foreign service officer, and lawyer, a liberal arts degree opens a world of possibilities.

Turn to page 97 for the complete detailed Liberal Arts program of study.



With a major in liberal arts, you will be preparing yourself for a world in which new and unexpected careers are invented every day.

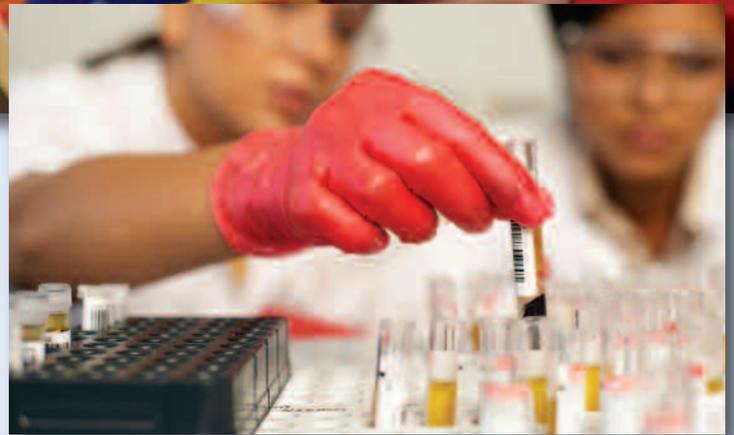
Biology is the study of life, individual organisms, their communities, and the systems, cells, and processes that make up living matter.

The study of biology is dedicated to analyzing problems, reaching creative solutions, and communicating those discoveries.

From microscopic organisms to cloning procedures, biology encompasses pretty much the whole world. Biology majors can study human, plants, animals, and the environments in which they live, and studies are conducted at the cellular level, the ecosystem level, or anywhere in between. You might find yourself looking to uncover secrets and for ways to solve problems, such as finding a cure for a disease. Biology majors might find themselves in one of many growing fields such as genetics and biotechnology or working as a veterinarian, optometrist, ecologist, or environmentalist. Many pre-medicine, pre-dentistry and pre-veterinary science majors enroll in biology as their undergraduate major.



This Associate in Science degree is transferable to a bachelor's degree-granting institution to continue your education. Turn to page 62 for the complete detailed Biology curriculum.



Associate in Science Degree

Biology



This major prepares you for many employment possibilities including biomedicine and research, allied health, private industry, and education.





Chemistry

Curious about what makes up the world around you? Wonder why the sky is blue or how diamonds differ from coal? This could be the major for you.

Chemistry majors are curious, analytical, self-starting leaders. They have strong written and verbal communication skills and are good at math, physics, and biology. Chemistry majors study matter (physical substance), looking at what it's made of and how it behaves, down to the atomic level.

Everything in the environment, whether naturally occurring or of human design, is composed of chemicals. Chemists search for new knowledge about chemicals and use it to improve life. Chemical research has led to the discovery and development of new and improved synthetic fibers, paints, adhesives, drugs, cosmetics, electronic components, lubricants, and thousands of other products.

Demand for chemists will be driven by biotechnology firms in research, studies of human genes, and the development of new drugs to combat illnesses and disease.

Chemists also develop processes such as improved oil refining and petrochemical processing that save energy and reduce pollution. Applications include studies of superconducting materials, graphite materials, integrated-circuit chips, and fuel cells. Research on the chemistry of living things spurs advances in medicine, agriculture, food processing, and other fields.

This major prepares you for a career in chemistry, biochemistry, geochemistry, chemical engineering or medicine, but your broad training is also useful in the fields of teaching, business management, law, environmental consulting and government. Chemistry is the major of choice to proceed in health sciences, clinical chemistry, pharmacology, and medicine. Specializations include biochemistry, chemical engineering, inorganic chemistry, organic chemistry, and physical chemistry.

Turn to page 66 for the complete detailed Chemistry curriculum.



If you've caught the acting bug and want to study drama at the college level, this is the program for you.

Drama is an art. Drama students have a love for theater, acting, and the stage production. You will learn about acting, lighting, staging, writing... every aspect of the industry.

In this program, you will learn the skills to play your characters more convincingly, study the subtext of a play, and explore the preparation it takes to bring a character to life on stage or screen.

Drama students learn to portray characters and their thoughts, moods, and feelings.

Students will learn to manage the planning and production of theatrical works and receive a comprehensive liberal arts education that will help them bring their characters to life.

Turn to page 78 for the complete detailed Drama curriculum program of study.



Associate in Arts Degree

Drama

OPTION OFFERED THROUGH LIBERAL ARTS

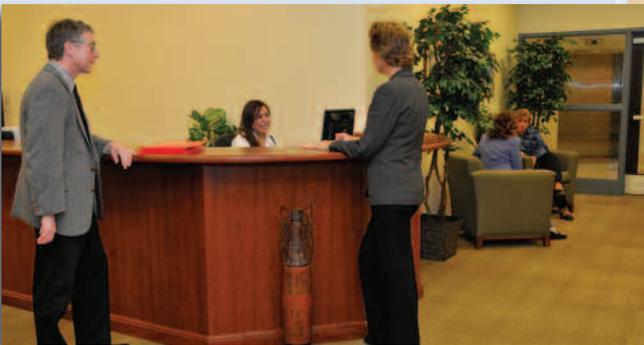


In addition to class work, students also participate in formal and informal productions, serving as actors, designers, directors, and playwrights.



Associate in Applied Science Hotel, tourism & restaurant management

You will learn many aspects of business including strategizing and planning, financing and marketing, management and operations.



Are you personable, accommodating, and enjoy meeting new people? A career in hotel, tourism, and restaurant management might be for you.

A degree in hotel, tourism, and restaurant management is your chance to begin an exciting and dynamic career in a growing industry.

On this career path, you'll be working first and foremost with people. The field includes working in large hotels and quaint bed and breakfasts; casinos and resorts; spas and cruise ships; hospitality is all about making visitors feel welcome.

The industry is expected to add 1.5 million jobs over the next 5 years according to the Bureau of Labor Statistics.

Hospitality professionals work to ensure that guests have the best possible experiences when it comes to customer service, comfort, value, quality, and atmosphere at their establishment. They're responsible for several areas of business including marketing, management, sales, operations, and finance.

By combining a broad educational foundation with real-world experience, this program provides opportunities for students to hone their leadership, business, and communication skills. Turn to page 92 for a detailed curriculum.





Associate in Applied Science

Game design creation

FOUR PROGRAM TRACKS • OFFERED THROUGH COMMUNICATIONS

Students in this field combine advanced animation techniques and computer programming skills to create video games and interactive media programs.



The world of game design is a complex science that's become one of the most popular college majors. In this program, you'll combine artistic talent with mathematics and computer programming to design and program interactive media including computer and video games, virtual environments, Internet applications, and more.

As a game designer, you'll be responsible for the playability and fun factor of the game. Use your skills to create the best game given the platform, genre, and audience.

You'll write and diagram your game in a design document, working as part of a team to bring the project to completion.

And, it's not all playtime! With your skills, you could be the one to develop and design the interface for manufactured products, such as cars, home appliances, and children's toys. You'll be combining your artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.

The curriculum includes instruction in theory of games, turn-based games, real-time games, visual and interactive design, story development, animation, simulation, and programming.

Turn to page 87 for the complete program of study.

Video games are increasingly used as learning tools. In many educational games, players use math and language skills to complete missions and advance to the next level of play.



Engineering

AEROSPACE, BIOMEDICAL, CHEMICAL, CIVIL, COMPUTER, ELECTRICAL,
ENVIRONMENTAL, GEOSCIENCE, INDUSTRIAL AND MECHANICAL



Engineers are the link between scientific discovery and society's needs – is there an engineer in you?

Engineering majors learn to use science and math to solve practical problems and help create everything from assembly lines and oil-drilling techniques to spacecraft and MP3 players.

A general engineering major at the associate's degree level provides solid preparation for any type of engineering degree at the bachelor's level. If you decide to earn a bachelor's degree in general engineering, you will study many different fields of engineering and business. You could then go on to coordinate teams of engineers, oversee product development from invention to market, or use your engineering know-how in a non-engineering field, such as law or medicine.

Engineers are creative, inquisitive, analytical, and detail oriented. They work as part of a team and need to communicate well, both orally and in writing. Communication abilities are becoming increasingly important as engineers interact more frequently with specialists in a wide range of fields outside engineering.

The Professor Elmer Wolf Engineering Program offers the first two years of a bachelor's degree program. Upon graduation, you are eligible to take advantage of the many transfer/articulation agreements that Union County College has with some of the top four-year colleges and universities in the country.

Turn to page 84 for the detailed Engineering program of study.



The first two years are common to most engineering fields. In the second year of study, however, some students begin to specialize in their field of choice such as chemical engineering.

LICENSED Practical Nursing



LPNs are observant, with good decision-making and communication skills, and, as part of a team, they bring healthcare to a variety of environments.

The demand for LPNs is expected to grow faster than the average for all occupations in response to the long-term care needs of an increasing elderly population. And, advanced technology has increased the demand for LPNs outside of hospitals where more jobs and more diverse career opportunities exist.

From nursing care facilities to home health care, as well as clinics and surgical hospitals, LPNs often specialize in a particular area of medicine, such as pediatrics, orthopedics, or gynecology.

They care for patients under the direction of physicians and registered nurses, often providing basic bedside care. LPNs measure and record vital signs, prepare and give injections, and dress wounds. Experienced LPNs may supervise nursing assistants and aides.

LPNs collect samples for testing, perform routine tests, and monitor medical equipment. Some LPNs help to deliver, care for, and feed infants.

Classroom study covers basic nursing concepts and patient care subjects including anatomy, physiology, medical-surgical nursing, pediatrics, obstetrics nursing, pharmacology, nutrition, and first aid. Graduates are eligible to take The National Council Licensure Examination, a requirement for licensure as an LPN.

The detailed program curriculum appears on page 119.

L.P.N Certification

The college offers several other healthcare programs including Dental Assisting, Dental Hygiene, Nuclear Medicine, Nursing, Psychosocial Rehabilitation and Treatment, Radiography, Respiratory Care, Paramedic, Physical Therapist Assistant and Diagnostic Medical Sonography.

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DIRECTORIES & INDEX



This is Union



About Union County College

Union County College is a public comprehensive community college and is one of New Jersey's nineteen county colleges. It is the first of New Jersey's 19 community colleges. The College operates major campuses in Cranford, Elizabeth, Plainfield and Scotch Plains. It enrolls almost 40,000 credit, non-credit, and continuing education students and is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Many programs lead to the Associate in Arts and the Associate in Science degrees. Students who satisfactorily complete these two-year programs may transfer to four-year institutions for their junior and senior years. Many programs lead to the Associate in Applied Science degree, the Certificate or the Certificate of Achievement, after which students may choose to conclude their formal education and seek employment in their fields of study. Union County College confers the Associate in Science degree upon graduates of Trinitas School of Nursing, Elizabeth, N.J., and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools, Plainfield, N.J.







History

Union County College (previously known as Union County Junior College, Union Junior College and Union College) traces its founding to the opening of Union County Junior College on October 16, 1933 in Abraham Clark High School, Roselle, N.J., with an enrollment of 243 evening students. It was the first of six Emergency Relief Administration projects in New Jersey. When federal aid was terminated in 1936, the College became an independent, non-profit institution governed by a Board of Trustees composed of educational, professional, and business leaders in the community. A day session was added in 1942 and the College moved into its own building in Cranford a year later. In 1971, Union College entered into contracts with Elizabeth General Medical Center (now Trinitas Regional Medical Center) in Elizabeth and Muhlenberg Hospital (now JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools) in Plainfield to jointly conduct Cooperative Programs in Professional Nursing.

From 1969 to 1982, Union College, then a two-year, independently-governed college, and Union County Technical Institute in Scotch Plains, New Jersey, provided college-level programs for Union County in lieu of a county college under contracts with the Union County Coordinating Agency for Higher Education. The College's current structure as a publicly-governed institution was established by state statute on August 17, 1982 when Union College and Union County Technical Institute consolidated to form Union County College. Union and the University of Medicine and Dentistry of New Jersey opened the Regional Health Education Center in the Health Technologies Building at the Scotch Plains Campus in 1994 to jointly offer programs in the health professions. In 1999, UMDNJ designated the jointly operated site as its fifth campus in the state.

Union County College moved to its current 48-acre campus in Cranford in 1959. It was enhanced in 1991 with the opening of what is now the Victor M. Richel Student Commons and with an addition to its Campus Center that includes a Fitness Center and Executive Education Center. The Kenneth Campbell MacKay Library was originally built in 1973. In 1994, the Center for Visual Arts and Communications was added and houses fine arts studios, a photography studio, multi-media laboratory, and a state-of-the-art television studio. In 2006, the Library was renovated and a third floor of instructional space was added.

In 1970, Union College opened two urban campuses in leased facilities in Elizabeth and Plainfield. In 1975 the College opened an Institute for Intensive English in Elizabeth, providing intensive English instruction for those whose first language is not English. In 1992, in an expansion of its commitment to these urban centers, Union County College opened major branch campuses in both cities. An eight-story office building in Elizabeth and a three-level facility in Plainfield were purchased and completely renovated to become full-service campuses. Several years later, the Plainfield campus was expanded to include an annex that houses instructional space for Emergency Medical Technician/Paramedic training and a state-of-the-art laboratory for American Sign Language and Deaf Studies.

In September 2009, the 132,000 sq. ft. addition to the Elizabeth campus, the Elizabeth I. Kellogg building, opened its doors. The Kellogg building houses the Kellogg Library, Food Court, the Trinitas School of Nursing on the third floor, and the Dr. Thomas H. Brown Center for Business and Educational Advancement on the fifth floor. The Kellogg Building is also equipped with state-of-the-art classrooms, a lecture hall, and an information commons. The Kellogg building is located just south of the Lessner Building at 40 West Jersey Street.



Union Today

Union County College is a publicly funded, comprehensive community college serving students throughout the region by providing access to high-quality and affordable educational programs. Students may earn associate degrees for transferring to four-year colleges in order to complete a baccalaureate degree. Through career programs, students may acquire the necessary associate degrees, certificates, or credentials to enter directly into the workforce. Developmental programs reflect the College's commitment to offer basic-skills courses to those who are underprepared for College, yet wish to seek a better life through education. One other core service of the College is life-long learning through noncredit education, which ranges from courses for personal enrichment to occupational training to promote workforce development.

Mission & Philosophy

Union County College, in cooperation with other agencies, is dedicated to serving the higher educational needs of Union County. The College has an open admissions policy for both transfer and career programs and is dedicated to the fundamental values of public higher education. The first of New Jersey's 19 community colleges, Union County College provides opportunities for higher education for people of diverse ethnic, racial, cultural, educational and socioeconomic backgrounds in a multi-campus setting. The College has four campuses, which are located in Cranford, Elizabeth, Plainfield and Scotch Plains. The Scotch Plains campus is operated in collaboration with the University of Medicine and Dentistry of New Jersey.

The College strives to promote in students a sense of responsibility for their own development and an understanding of their obligations as members of a democratic society. The College fosters in students the desire to learn, the ability to think clearly and express themselves effectively, the habit of analytical and reflective thought, and an awareness of themselves, their heritage, other cultures, and their environment.

The College seeks to provide:

- the highest quality transfer education through comprehensive curricula and the use of the most current technology, allowing for transfer to four year colleges and universities;
- the highest quality technical and career-oriented education through selected degree and certificate programs which use the most current technology, preparing students for immediate entry into a career;
- innovative student-centered teaching and support services to foster students' personal and social development;
- continuing and community education programs and courses in varied schedules, at varied locations, and with varied modes of instruction for credit or without;
- developmental studies, particularly in writing, reading and mathematics, to prepare students for college level programs and courses and to increase their literacy;
- academic advising, career/employment services, transfer services, counseling services, tutoring services, and an array of extra and co-curricular activities;
- customized training and retraining for business and industry;
- workforce education programs for persons displaced from their jobs or unemployed.

Goals & Objectives

Goal I

Provide a series of relevant general education courses for all students.

Objectives insure that general education courses enable students to develop:

- critical thinking and problem solving skills
- effective communication skills
- values and ethical standards
- the ability to use modern technology
- the ability to become self directed learners
- an awareness of and concern about the ethical implications of institutional policies and individual practices
- an expanded awareness of their rights and responsibilities as citizens of a world community
- the ability to understand, communicate with, respect, and live harmoniously in a diverse society
- an understanding of themselves - their abilities, interests, and personalities
- an awareness of the diverse forces that shape their world and themselves in order to keep pace with the changing society

Goal II

Provide transfer programs and courses for students who want to continue their education at four year institutions.

Objectives

- meet the specific needs of transfer students
- ensure the academic standards for transfer are reviewed and maintained through the offering of a range of technical and professional programs
- continue to add to the existing articulation and dual admissions agreements with four year institutions both within and outside the state
- maintain an open avenue of communication among faculty, counselors, and administrators at the institutions involved

Goal III

Provide career programs to prepare students to function in a technologically and socially changing world.

Objectives

- offer a range of technical and professional programs in the business, engineering, and health technology fields
- evaluate and update curricula, programs, and courses in response to workforce needs
- accommodate the diverse needs of students entering the workforce, seeking to advance further in their careers, or retraining for new jobs

Goal IV

Provide developmental courses for students who need to prepare for college level credit courses.

Objectives

- develop necessary oral, reading, writing, and mathematical skills emphasizing process and concepts
- help students develop effective learning strategies
- facilitate the transition from developmental to regular college credit courses
- provide academic advising and placement

Goal V

Provide professional development programs to ensure excellence in teaching learning processes.

Objectives

- develop in service programs which explore and implement new pedagogy and technology
- provide a wide variety of professional development programs supporting individual, departmental, and college wide professional development
- provide faculty with access, support, and training in computer-mediated instruction
- train faculty in the development and implementation of distance learning courses

Goal VI

Provide support services for all students.

Objectives

- provide orientation for students and their families
- provide academic, career, and personal intervention counseling
- provide activities that promote personal and social growth and development such as multi cultural activities, wellness programs, and athletics
- explore new ways to assist students in financial need who do not qualify for established programs
- provide job placement services as required

Goal VII

Provide college services and resources to accommodate a diverse student population.

Objectives

- provide delivery systems to reach populations, including distance learning courses and non traditional course offerings
- provide courses in the English language and American culture to students whose first language is not English
- provide scheduling patterns responsive to the needs of working students
- expand articulation with high schools through faculty collaboration, college credit in high school, summer programs, and early identification of potential college candidates
- provide appropriate accommodations and accessibility to students with physical and learning disabilities
- effectively communicate the services of the College throughout the county
- provide peer, paraprofessional and professional tutoring and computer-assisted instruction through the College's Academic Learning Centers

Goal VIII

Provide opportunities for life long learning and personal enrichment.

Objectives

- use community-based physical, financial, and human resources available to complement those within the College
- provide educational, cultural, and recreational activities for the Union County College community
- provide technological education

Goal IX

Develop workforce development programs through alliances with hospitals, universities, business, industry, and professional and governmental groups to meet the changing workforce requirements.

Objectives

- provide courses and programs that are responsive to the needs of business, industry, and professional and governmental groups through the Center for Economic and Workforce Development (CEWD).
- provide career assessment and educational opportunities through the Center for Economic and Workforce Development (CEWD) for persons displaced from their jobs, unemployed or underemployed
- actively participate in the economic planning and development of the county
- encourage faculty and staff to take active roles in various local and national community, service, business, and professional organizations
- provide active program advisory committees for technical programs
- collaborate with hospitals, universities, business, and industry in order to provide comprehensive programs
- provide externships and workstudy programs when appropriate
- provide instruction in English as a Second Language (ESL), civics, literacy, and General Education Development (GED) preparation

Goal X

Serve as a cultural center for the community and surrounding areas.

Objectives

- provide an annual series of theatrical programs
- provide an annual series of art exhibitions
- provide a program of intercultural exchange including musical performances, lectures, literary publications and readings

Goal XI

Enhance teaching and learning through the use of instructional technology.

Objectives

- incorporate whole class multi-media presentation methodologies into classroom instruction on all campuses
- integrate web-based activities into the college curricula
- provide specialized hardware and software in dedicated laboratories and classrooms to meet curricular needs
- provide the required institutional support and access to students, instructors, and staff to realize the full potential advantages of technology

Goal XII

Offer distance learning courses and programs.

Objectives

- provide courses and programs utilizing a variety of median and formats such as web-based online, blended learning, and tele-courses
- provide faculty support and training for the development and delivery of distance education courses and programs
- provide web-based academic and non-academic student support services for distance learners
- foster collaborations with educational institutions and other organizations to better serve distance education students

Goal XIII

Provide the Union County College community with state-of-the-art information resources and services in facilities designed to foster intellectual, technical, and vocational growth.

Objectives

- develop library collections sensitive to and reflective of a diverse curricular and student body
- provide access to information in changing and emerging formats
- provide a program of information literacy-across-the-curriculum that teaches students how to access, evaluate and use information in the classroom and throughout their lives
- provide a comfortable library atmosphere and facilities that stimulate the learning process
- develop resources and services to support the needs of remote users
- develop in students an appreciation for the value of the library as an educational and life resource

Goal XIV

Increase the diversity of the College faculty, staff, and administration.

Objectives

- assess progress toward meeting these goals on a monthly basis
- achieve the goals contained in the affirmative action plan by the dates indicated

Goal XV

Provide sufficient resources, both public and private, to implement the preceding goals.

Objectives

- continue to seek funds from appropriate Federal, State and County agencies
- continue to seek funds from individuals and private sources
- continue to operate in a cost effective manner
- continue to seek funds for scholarship assistance to students and for faculty grants

ACCREDITATION

Union County College is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, (267) 284-5000. The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council on Higher Education Accreditation. The former Union College was accredited by and admitted to membership in the Association in 1957. Its accreditation was reaffirmed in 1967, 1973, 1982, 1986, 1997, and again in 2002 and 2007 as Union County College.

Union County College was granted the authority by the State of New Jersey in April 1982, to confer the degree of Associate in Arts, Associate in Science, and Associate in Applied Science and to award the certificate and the certificate of achievement. Union College had held the authority to confer the Associate in Arts degree since 1953, and the Associate in Science and Associate in Applied Science degree since 1969.

Union County College is licensed by the State of New Jersey. Union College had been licensed since 1939.

The following programs hold professional accreditation:

- **radiography and radiation therapy** (Joint Review Committee on Education in Radiologic Technology, conducted jointly with JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools);
- **physical therapist assistant** (American Physical Therapy Association, Commission on Accreditation in Physical Therapy Education);
- **respiratory care** (Commission on Accreditation of Allied Health Programs, in collaboration with the Committee on Accreditation for Respiratory Care), conducted jointly with the University of Medicine and Dentistry of New Jersey (UMDNJ);
- **professional nursing** (National League for Nursing Accrediting Commission, Inc., conducted jointly with JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools and Trinitas Hospital);
- **practical nursing** (accredited through the New Jersey Board of Nursing and the National League for Nursing Accreditation Commission);
- **dental assisting** (Commission on Dental Accreditation of the American Dental Association, conducted jointly with UMDNJ);
- **dental hygiene** (Commission on Dental Accreditation of the American Dental Association, conducted jointly with UMDNJ); and
- **nuclear medicine technology** (Joint Review Committee on Educational Programs in Nuclear Medicine Technology, conducted jointly with JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools).
- **paralegal studies** (Approved by the American Bar Association);
- **paramedic** (New Jersey Department of Health and Senior Services, Commission on Accreditation of Allied Health and Educational Programs);
- **emergency health sciences paramedic** (New Jersey Department of Health and Senior Services, Commission on Accreditation of Allied Health Educational Programs);
- **diagnostic medical sonography** (Commission on accreditation of Allied Health Education Programs with the recommendation of the Joint Review committee on Education in Diagnostic Medical Sonography), conducted jointly with JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools.

These organizations are specialized accrediting agencies recognized by the U.S. Secretary of Education and/or the Council on Higher Education Accreditation.

Campus Locations

Union County College operates major campuses in Cranford, Elizabeth, Plainfield, and Scotch Plains, NJ.

The College's main offices are on the 48-acre Cranford campus, located at 1033 Springfield Avenue, Cranford, NJ. Cranford is located near major highways, including the Garden State Parkway, Routes 1-9, 22, 27, 28 and 78 and is accessible to a wide area of north central New Jersey.

The Cranford campus is also accessible by mass transit with bus routes that stop on campus and rail service is available to downtown Cranford.

The Elizabeth Campus is located at 40 West Jersey Street, in the eight-story Sidney F. Lessner Building and the five-story Elizabeth I. Kellogg Building within the city's major business district. Extensive bus and rail service is available within a half block of the Campus.

The Plainfield Campus is located at 232 East Second Street, in a three-story building. Bus and rail transportation is available within two blocks of the Campus.

The College conducts cooperative programs in professional nursing with the Trinitas School of Nursing located on the third floor of the Elizabeth I. Kellogg Building on the Elizabeth campus and with the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools on Park Avenue and Randolph Road, Plainfield, NJ.

In addition, the College operates a Regional Health Education Center at its Scotch Plains Campus jointly with the University of Medicine and Dentistry of New Jersey. The campus, located at 1776 Raritan Road, Scotch Plains, N.J., is accessible via the Garden State Parkway and Route 22.



Facilities

Cranford Campus

There are eight major buildings on the Cranford Campus: the Kenneth Campbell MacKay Library which houses the Tomasulo Art Gallery, Academic Learning Center, and the Center for Visual Arts and Communication; the Humanities, Science and Nomahegan Buildings with classrooms, lecture halls, seminar rooms, science and computing laboratories, counseling and faculty offices, lounges, cafeteria and student and faculty dining rooms; the Campus Center with the Roy W. Smith Theater, gymnasium, Fitness Center, Executive Education Center, other facilities for student activities, and bookstore; The Victor M. Richel Student Commons, a student life/student lounge facility, featuring an atrium and multi-level floor providing a variety of lounge and meeting spaces; James R. MacDonald Hall, which contains administrative offices; and the William Miller Sperry Observatory.



Elizabeth Campus

The Elizabeth Campus is comprised of two buildings on West Jersey Street. The 100,000 sq. ft. Sidney F. Lessner Building provides classrooms, a theater, lecture hall, seminar and conference rooms, computer and science laboratories, the Academic Learning Center, faculty and administrative offices, and bookstore. The new 132,000 sq. ft. Elizabeth I. Kellogg building, opened in September 2009, houses the Kellogg Library, Food Court, the Trinitas School of Nursing on the third floor, and the Dr. Thomas H. Brown Center for Business and Educational Advancement on the fifth floor. The Kellogg Building also houses state-of-the-art classrooms, lecture hall, and an information commons. The Kellogg building is located just south of the Lessner Building at 40 West Jersey Street.



Plainfield Campus

The Plainfield Campus is comprised of most of a city block between East Second and East Third Streets and Church Street and Roosevelt Avenue. The three-story, 28,000 sq. ft. building contains classrooms, lecture hall, allied health, computing and science laboratories, seminar and conference rooms, Library and Academic Learning Center, faculty and administrative offices. An adjacent building houses instructional space for Emergency Medical Technician/Paramedic training, a state-of-the-art laboratory for American Sign Language and Deaf Studies, a student lounge, faculty offices, bookstore, and cafeteria.



Scotch Plains Campus

The College shares a 40-acre campus in Scotch Plains with the Union County Vocational-Technical Schools and the John H. Stamler Police Academy. The College and the University of Medicine and Dentistry of New Jersey jointly operate the Regional Health Education Center in the College's 65,000 sq. ft. Health

Technologies Building, which has also been designated as the fifth campus of UMDNJ. It provides classrooms, lecture hall, seminar and conference rooms, allied health and science laboratories, library, faculty and administrative offices, dining room and Campus Center.





Admissions & Placement

ADMISSIONS

Admission to Union County College is open to all high school graduates, those holding high school equivalency certificates, or those persons eighteen years of age or older.

Application Procedure

Applicants must complete the Union County College Application for Admission and pay the application fee. The application for credit admissions can be obtained from the Admissions Office at the Cranford, Elizabeth, Plainfield Campuses or through the college website, www.ucc.edu (online web services). Candidates for admission are urged to apply 6 months prior to the start of the semester/session.

Allied Health and Nursing program applicants must apply within the required program deadline date, and may be required to submit a separate application in addition to the Union County college application. JFK Muhlenberg Schools application may be submitted to the college Admissions Office or mailed directly to JFK Muhlenberg Schools. The Trinitas nursing school application for admission must be submitted directly to the Admissions Office. Union County College/ University of Medicine and Dentistry of New Jersey applicants must submit their application to the Admissions Office of Union County College, Cranford Campus. UMDNJ acceptance is done yearly for most programs. Acceptance to all Allied Health and Nursing programs are not guaranteed, therefore students are required to review each program requirements Applicants requesting further information and/or counseling services may contact the recruitment office or counseling office on any campus.

After submission of the Union County College application and before enrolling in courses placement testing in English and Math are required. The results of the test will not affect admission to the college. (see placement testing)

Applicants with a disability are urged to seek an interview with the Coordinator of Services for Students with Disabilities. The Coordinator is located in Counseling Services on the Cranford Campus.

Scholastic Aptitude Test (SAT)

It is recommended that applicants to all degree programs take the Scholastic Aptitude Test (SAT). The SAT is a test given by collegeboard.com. Acceptance to Union County College programs are not based on SAT scores. Certain SAT scores will exempt students from the placement test and may be required to qualify for selected scholarships at Union County College. It is the student's responsibility to register for the SAT exam and have the final scores provided to Union County College. Students may visit www.collegeboard.com directly to review registration information. (Union County College CEEB Code is 2921).

Bridge Program

High school juniors and seniors may apply for the Bridge Program to earn college credits while still in high school. Permission of their high school counselor and parent/guardian is required. Bridge applicants must have a 'B' high school average. Union County College developmental placement testing is required. Bridge applicants must test out of all developmental courses to be eligible for registration. Acceptable SAT scores (see Placement Testing) will also exempt students from the college placement test requirement. Bridge Program applications are available in the high school guidance offices or the Student Recruitment and Admission Offices on any campus. Students will be required to submit a Union County College application for admission with the required fee. Acceptance will be based on placement test or SAT results and completion of required documents.

Dual/Joint Admissions Agreements

Union County College students who complete their associate degrees in designated programs and who fulfill all the necessary criteria of the dual admission program will be guaranteed admission as juniors to their choice of several undergraduate colleges/universities with which Union County College has agreements. For more detailed information on Dual Admissions and other transfer opportunities see pages 14-16.

Placement Testing

The College Basic Skills Placement Test covers basic preparation in English and Mathematics and is used to determine whether students are prepared for college-level course work. The results of the test will not affect admission to the College, but may indicate the need for required preparatory courses during the student's first semester. You must have a College identification number acquired by applying for Admission and photo identification to enter the Computerized Test Laboratory for the testing.

After admission to the College and before enrolling for classes, placement testing is mandatory to evaluate certain academic skills. (Students whose native language is not English must take an English for Speakers of Other Languages test in lieu of the College Placement Test). This service assists the student in the transition from high school to college. A major goal of this testing is the recognition and remedy of weakness in reading, writing and mathematics.

Union County College requires that the following students take the test:

- (A) Full-time and part-time freshmen entering Union County College.
- (B) Students who have not already taken the test, but who register for a course that would result in the accumulation of 12 or more credits.
- (C) Full-time and part-time transfer students who have received Union County College transfer credit for one semester of college English (for example, ENG 101) must take the reading part of the College Placement Test unless there is evidence of college level reading proficiency.

- (D) All transfer students must demonstrate proficiency in basic skills math through old approved test scores or satisfactory completion of developmental courses in arithmetic and elementary algebra to receive exemption from the math part of the College Placement Test. Students without math proficiency proof, but with transfer credit for one semester of college English, must take the math part of the College Placement Test. A student who has DECLARED a Union County College program of study which requires the study of mathematics for college credit (for example, Engineering, Business, Biology), must have completed a college-level math course for exemption from the math part of the College Placement Test.
- (E) Any student who presents SAT (Scholastic Achievement Test from the College Board) scores of at least 540 in the Critical Reading and 530 in Math will be exempt from the CPT. As the College Board recommends, the College will use the score for writing separately. Developmental writing will be waived for those who score 500 on the SAT writing after taking the college placement testing.

Basic Skills Policies

1. Full and part-time students who are required to take the College's institutional credit remedial/developmental or ESL courses must start these courses during their first semester of enrollment and continue in subsequent semesters until finishing the requirement. The part-time person may follow a priority policy where introductory Reading or Language Arts (ENG 087/088/089) is required before Introductory Writing (ENG 098/099) when there are two required English courses. Introductory Mathematics Concepts and/or Introductory Algebra (MAT 011/015-016/022) would be required after Introductory Writing (ENG 098-099) if mandatory courses in Mathematics are part of the multiple remedial/developmental needs of a student.
2. Full and part-time students who have given their program of study as undecided will change their program to a College program after completing no more than twelve degree credits or have their program changed by the College to Liberal Studies.
3. All students who apply for admissions to one of the affiliated hospital programs must follow the basic skills policies of the school which they will attend even when they are different from Union County College policies.
4. The "Description of Courses" section of this catalog details prerequisite and corequisite course requirements for students who are required to take the College's institutional credit remedial/developmental or ESL courses. **Department chairpersons may waive specific pre-requisites/co-requisites in special cases.**

Immunization Requirement

The State of New Jersey requires all full-time students born after December 31, 1956 to be immunized against measles, mumps, Rubella and Hepatitis B, or prove that they meet one of the exemption requirements. Students must bring a copy of a certificate from a doctor or medical center showing proof of inoculations to the Admissions Office on the Cranford, Elizabeth or Plainfield campus.

Qualifications for Admission

Degree Programs

A student's eligibility for admission to a particular degree program is based on one or more of the following:

1. Official high school diploma/G.E.D.
2. Previous college transcript, if applicable.
3. Credits transferred towards Associate Degree may not exceed ½ of the total program credits.
4. Cumulative GPA.

Candidates may apply to Union County College as full-time students (12 or more credit hours) or as half time (6-11 credit hours) or as less than half time or part-time students (1-5 credit hours) each semester/session. Classes are available during the day, in the evening, or on the weekend. Candidates for programs leading to an Associate degree are advised to complete 19 units of high school credit distributed as follows:

English	4 units
Lab Science***	2 units
Mathematics*	3 units
History	3 units
Foreign Language**	2 units
Electives****	5 units

* Candidates for the engineering and physical science programs must include elementary and intermediate algebra, plane geometry and trigonometry. Business majors are encouraged to present Algebra I, Geometry and Algebra II.

** Optional for students entering programs other than liberal arts.

*** Engineering and physical science students should include physics and chemistry; health technologies students include biology and chemistry.

**** Chosen from foreign languages, social studies, science or mathematics. If a student does not have these high school units, non-credit prerequisite courses offered by the College may be required by the selected program of study.

Admissions requirements for nursing/allied health students in addition to the general high school units recommended for a degree program are:

1. Applicants will be accepted only if program requirements are met. (No students will be permitted to register for professional courses unless developmental and core prerequisites courses have been completed).
2. All students are urged to have an interview with the program coordinator or designee prior to acceptance into the program.
3. Students admitted into the following programs must meet additional criteria for admission into the professional courses in these programs. Continuous enrollment in these programs is, therefore, not guaranteed. These programs are Practical Nursing, JFK Muhlenberg Schools, Trinitas Nursing, and Cooperative Programs with the University of Medicine and Dentistry of New Jersey (UMDNJ).
4. Admission to joint programs with the University of Medicine and Dentistry of New Jersey (UMDNJ) are competitive and determined by a selection process based on admission prerequisites, core courses completion at Union County College and grade point average.

Students apply to Union County College with a Union County College application for admission. Students accepted to the cooperative programs must meet all requirements of the program in addition to Union County College requirements.

5. Students who fail to maintain continuous enrollment from fall to spring and spring to fall semesters are not guaranteed continuance in any given program. Only half the total program credits can be used for a second Union County College degree and or transferred into Union County College for the Program.

Certificate Programs

A student's eligibility for admission to a certificate program may be determined on the basis of:

1. High school diploma/G.E.D.
2. Cumulative GPA.
3. Completion of an associate's degree or higher.
4. Previous college record. Certificate candidates in the health technology programs should have a background in biology and chemistry and, if applicable, SAT scores.
5. Only half the total program credits can be used for a second degree and or transferred into Union County College for the program.

Ability to Benefit

Students who lack a high school diploma or equivalent and are seeking federal student aid support must prove their "Ability to Benefit" from a post-secondary program of study. To determine the Ability to Benefit, students must take the Computerized Accuplacer Placement Test at a location other than the Union County College Assessment Center. Students must submit scores to the Financial Aid Office on the Cranford campus for review and approval. Students who do not qualify will be responsible for all tuition and fees.

Classification of Students

Matriculated Students – Students who are accepted in a specific program of study for degree or certificate credit on a full-time or part-time basis are matriculated students. Official high school and college transcripts may be required.

Non-Matriculated Student – Students who are not accepted in a specific program or who do not wish to declare a program are non-matriculated. Credits earned as a non-matriculated student may be applied toward a future degree or certificate if they apply.

At the time a student applies for matriculation, all academic credentials must be submitted. Matriculation forms are available in the Admissions Offices on all campuses.

To be eligible for financial aid, students must be matriculated.

Enrollment Status

Students enrolled for 12 or more credits are considered full-time, 6 to 11 credits half-time, and 1 to 5 credits less than half time or part-time. Verification of enrollment must be requested in writing to the Registrar's Office and are done weekly on all campuses. Forms are available on-line, visit www.ucc.edu.

Class Standing

Students with less than 30 credits are considered in freshman (FR) standing; Students with 30 credits or more are considered to be in sophomore (SO) standing.

Special Admission Categories

Advanced Degrees/College Graduates – Applicants holding advanced degrees may be required to have an official transcript mailed to the Union County College Admissions Office, Cranford Campus. Transfer Credit reviews require completion of a transfer request form and an official transcript from that college/university.

Students producing evidence of earning advanced degrees from accredited U.S. or international institutions may be considered for placement testing exemption or transfer credit evaluation if requested. Applicants holding degrees equivalent to or at advanced levels from those offered at Union County College will be reviewed under the same criteria. However, students may not matriculate in the same program for which they currently hold an approved degree.

Senior Citizens – New Jersey residents 65 years of age or over may attend Union County College on a space-available basis. Senior citizens must register on the last day of registration and are required to pay registration and general fees (see tuition & fees). Senior students who choose to register for courses prior to the designated date or who may qualify for financial aid will be charged the regular tuition and fees.

Senior Citizen – Life Center – Senior citizens participating in the Life Center, take courses when offered at various senior centers, not on a Union County College campus. Life senior courses are only offered as an Audit (no credit given). No fees are required to enroll in the Life Center courses.

Veterans – Union County College celebrates Veterans and encourage admissions and enrollment. Union County College participates with the VA provisions of the Federal Laws which entitle veteran to educational benefits. The requirements and services provided for the various programs can be reviewed through the VA website www.gibill.va.gov. To be certified for VA educational assistance, students must apply to the college, matriculate in an eligible degree or certificate program and apply for veteran benefits; proof of VA benefits and documents may be required. Veterans must check in with the Admissions Office located on the Cranford or Elizabeth campuses before registering for classes to ensure all requirements are met.

National Guard – Members of the National Guard are eligible to attend Union County College on a tuition waiver, once all documentation has been processed as noted under "veterans" above. National Guard students must apply and complete the financial aid application process prior to using their tuition waiver.

Unemployed Workers – Tuition Waivers – Union County unemployed workers holding tuition waivers may attend Union County College on a space-available basis, register on the last day of registration tuition free with the supporting documentation. All other fees and expenses must be paid by the student. Students who register for courses prior to the designated date MAY NOT use the tuition waiver and will be responsible for all tuition and fees. Unemployed workers must apply and complete the financial aid application process prior to using the tuition waiver.

Workforce Development – Workforce students are eligible to attend Union County College with supporting documentation, provided they have an approved contract on file at the college. Workforce students must apply and complete the financial aid application process prior to registration.

Seeking Second Degrees

Students seeking second degrees in the same degree classification (i.e., a second A.A., A.S., A.A.S., CTA, or CT) must meet with a counselor/advisor to review program requirements prior to pursuance of that second degree. Only half the program credits from one degree, certificate may be applied towards the second program. The maximum number of qualifying transfer credits will vary in programs. Request for pursuing a second degree can be made to an academic counselor/advisor or may be made at the time a student reapplies for admission. Students who have received a baccalaureate degree or higher may be granted additional credits. Developmental courses cannot be used as electives. All electives must be taken in accordance with the approved general elective category. Students will not receive transfer credit for courses taken at Union County College.

International Students

International students are welcome to apply at Union County College. Students applying with a valid visa other than a student visa (F-1) must submit copies of the visa with the Union County College application. Students applying for a student visa (F-1) must obtain an international student packet from the Admissions Office on any campus.

Application for admission and all required documentation outlined in the student packet must be submitted in its entirety, by the deadline dates. Students currently in the United States with an F-1 Visa from another U.S. institution who wish to attend Union County College must follow the same admissions procedure and will be required in addition to provide:

- Official transcripts from all colleges or universities attended.
- International Student Advisor Report must be completed and signed by the Designated School Official of the current college/university the student is attending.

No decision will be made until all documents are submitted to the international advisor.

Approval of visa status is done through the U. S. Department of Homeland Security Office through Student Exchange Visitors Service and not through Union County College. Students acceptance to the college will be based on Visa approval for all F-1 visa applicants.

Advanced Placement – AP

Union County College awards credit to students who have taken Advanced Placement (AP) courses and have achieved a score of 3 or higher on the examination course equivalents of the subject matter of the AP examination. Credit is given in accordance with the state and American Association of Collegiate Registrar's and Admissions Officers (AACRAO) regulations for transfer credit approval.

College Level Examinations – CLEP

CLEP (College-Level Examination Program®) provides a method of earning college credit by taking examinations in various subject areas. Students may apply for CLEP through collegeboard.com. Union County College recognizes CLEP scores and will apply credit in subject areas when the CLEP scores meet the college requirements. CLEP credit will not be given where there is evidence of previous academic work.

Transfer Credit

Union County College welcomes applicants transferring in from another institution(s). The amount of transfer credit allowed is determined by the students degree status and program requirements. Students interested in transferring courses to Union County College must complete the college application process, have an official college/university transcripts mailed to Union County College Admissions Office, Cranford Campus and complete a request for transfer evaluation form. Upon completion of a transfer evaluation form an official review and granting of transfer credit will be done based on program requirements and transfer regulations.

Transfer students who have successfully completed college level English composition and mathematics with a grade of C or better from an accredited U. S. college may be exempt from the college placement test. Students transferring in from a college or university outside the United States may be required to take the College English as a Second Language ESL placement test. English is not transferred from colleges outside the United States.

The acceptability of transfer credit depends largely upon the institution involved and the program to which the student seeks admission. Union County College accepts transfer credit based on academic ability and standards. The college has direct transfer agreements with a large number of college/universities. Transfer evaluation forms are available online at www.ucc.edu web site under admission forms or in the Admissions Office, all campuses. Transfer credit is granted based on the guidelines approved through AACRAO and the New Jersey State transfer guidelines. Students are urged to visit NJ Transfer at www.NJtransfer.org.

John H. Stamler Police Academy & Fire Science Training Academy. Graduates of the Union County Academy and/or Fire Academy will be granted advanced standing credit toward an Associate Degree after admission and matriculation into the Criminal Justice or Fire Science program at Union County College. Each program has designated credits which will be granted; Police Academy up to 12 credits, Fire Science up to 6 credits. It is the student's responsibility to supply the College with proof of graduation from the academy and official transcripts of all previous college work at the institutions attended.

Readmission with Good Standing

A student who has withdrawn from Union County College in good standing and has left for a period of at least one full semester and seeks reinstatement need only complete application form and pay the fee. Students who withdraw and intend to re-register for the following semester need only to fill out a registration form. When a student returns to Union County College under the readmission category, the student must adhere to the program requirements in effect at the time of readmission.

Post Degree Transfer Opportunities



ALUMNI OF UNION COUNTY COLLEGE, INCLUDING STUDENTS OF ITS PREDECESSOR SCHOOLS (THE FORMER UNION COLLEGE AND UNION COUNTY TECHNICAL INSTITUTE), HAVE TRANSFERRED WITH ADVANCED STANDING TO MORE THAN 500 COLLEGES AND UNIVERSITIES IN THE UNITED STATES.

Today, Union County College has dual admissions and direct transfer/articulation agreements with a growing list of colleges and universities as well as transfer agreements with New Jersey state colleges. Students planning to transfer to a four-year college or university should see a counselor or program coordinator for specific information on these transfer opportunities.

Dual Admissions Agreements

RUTGERS – The State University

The Rutgers University Dual Degree Program (DDP) provides New Jersey high school graduates with an opportunity to earn a baccalaureate degree at Rutgers University by first earning an associate's degree at Union County College. Application must be made to Rutgers University. Once admitted, students follow a Recommended Transfer Program (RTP). To determine the equivalency between Union County College courses and Rutgers courses visit NJ Transfer (www.njtransfer.org). Successful completion of an Associate degree at Union will guarantee admission to Rutgers as a third-year student, provided that an overall cumulative grade point average of at least 3.00 has been achieved in the RTP.

Union County College students who enroll in the Dual/Joint Admissions Program with Union County College and Rutgers University should be guaranteed admission as juniors provided they have completed an Associate degree and fulfilled the necessary criteria.

The College of St. Elizabeth

The College of St. Elizabeth will reserve a place for Union County College students enrolled in the joint admissions program for a Bachelor of Science in Business Administration or the Bachelor of Arts in Justice Studies. The student will be enrolled in a parallel program, and will be accepted with full junior standing. The student must complete the Associate degree under which they were accepted at Union County College and fulfill the criteria of the joint admissions program.

Fairleigh Dickinson University

Union County College students who enroll in the joint admission program with Union County College and Fairleigh Dickinson University should be guaranteed admission as juniors provided they have completed an Associate degree and fulfill all the necessary criteria of the joint admissions program.

Georgian Court University

Georgian Court University will reserve a place for Union County College students enrolled in the joint admissions program. The student will be enrolled in a parallel program of choice and will be accepted with full junior standing. The student must complete the Associate degree under which they were accepted at Union County College and fulfill the criteria of the joint admissions program.

Kean University

Union County College students who enroll in the joint admission program with Union County College and Kean University should be guaranteed admission as juniors provided they have completed an Associate degree and fulfill all the necessary criteria of the joint admissions program.

Montclair State University

Union County College students who enroll in the joint admissions program with Union County College and Montclair State University should be guaranteed admissions as juniors provided they have completed an Associate degree and fulfill all the necessary criteria of the dual admissions program.

New Jersey Institute of Technology

Union County College students who enroll in the joint admissions program between Union County College and NJIT should be guaranteed admission as juniors into a parallel program at NJIT (Management, Architecture, Computer Science, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Science, Industrial Engineering, Mechanical Engineering, Construction Engineering Technology, Manufacturing Engineering Technology, Mechanical Engineering Technology) provided they have completed an Associate degree and fulfill all the necessary criteria of the dual admissions program.

New Jersey City University

Union County College students who enroll in the joint admissions program with Union County College and New Jersey City University should be guaranteed admissions as juniors provided they have completed an Associate degree and fulfill all the necessary criteria of the dual admissions program.

Transfer/Articulation Agreements

A vital part of Union County College's mission is to transfer its graduates with junior-year status to four-year colleges and universities throughout the United States and abroad. Over the years, the College has compiled an enviable record in carrying out this goal, as graduates have transferred to more than 500 colleges and universities throughout the world. Articulation agreements are designed to facilitate transfer to specific colleges and programs, but our students are not limited to transferring only to these institutions:

- **Berkeley College**, NY and NJ
- **Bethune-Cookman College**, Daytona Beach, FL
- **Bloomfield College**, Bloomfield, NJ
- **Caldwell College**, Caldwell, NJ
- **California University of Pennsylvania**, California, PA
- **Cazenovia College**, Cazenovia, NY
- **Centenary College**, Hackettstown, NJ
- **College of Saint Elizabeth**, Convent Station, NJ
(See information on dual admissions)
- **College of Mount St. Vincent**, Riverdale, NY
- **Delaware Valley College**, Doylestown, PA
- **Dickinson College**, Carlisle, PA
- **Fairleigh Dickinson University**, College at Florham Park, Madison, NJ; Metropolitan Campus, Teaneck, NJ
(See information on dual admissions)
- **Georgian Court University**, Lakewood, Woodbridge, NJ
(See information on dual admissions)
- **Howard University**, Washington, DC
- **John Jay College of Criminal Justice (CUNY)**, NY, NY
- **Kaplan University**, Iowa and Nebraska
- **Kean University**, Union, NJ
(See information on dual admissions)
- **Laboratory Institute of Merchandising**, NY, NY
- **Lebanon Valley College**, Annville, PA
- **Manhattan College**, Riverdale, NY
- **Monmouth University**, West Long Branch, NJ
- **Montclair State University**, Upper Montclair, NJ
(See information on dual admissions)
- **Mount Aloysius College**, Cresson, PA
- **The National College of Chiropractic**, Lombard, IL
- **New Jersey City University**, Jersey City, NJ
{See information on dual admissions}
- **New Jersey Institute of Technology**, Newark, NJ
(See information on dual admissions)
- **Pace University**, NY, NY

- **Palmer College of Chiropractic**, Davenport, IA
- **Polytechnic University**, Brooklyn, NY
- **Richard Stockton College of New Jersey**, Pomona, NJ
- **Rochester Institute of Technology, School of Engineering**, Rochester, NY
- **Rutgers** – The State University of NJ
(See information on dual admissions)
- **Sacred Heart University**, Fairfield, Connecticut
- **Saint Peter's College**, Jersey City, NJ
- **School of Visual Arts**, NY, NY
- **Seton Hall University**, West Orange, NJ
- **Springfield College of Human Services**, Springfield, MA
- **St. Francis College**, Brooklyn Heights, NY
- **St. John's University**, Staten Island, NY
- **St. Leo University**, St. Leo, FL
- **State University of New York at Binghamton**, Binghamton, NY
- **State University of New York at Syracuse**, Syracuse, NY
- **State University of New York, Institute of Technology at Utica/Rome**, Utica/Rome, NY
- **Strayer University**, Florida
- **Thomas Edison State College**, Trenton, NJ
- **Tuskegee University**, Tuskegee, AL
- **University of Phoenix**
- **University of Pittsburgh at Bradford**, Bradford, PA
- **University of Vermont**, Burlington, VT
- **Widener University**, Chester, PA
- **Wilberforce University**, Wilberforce, OH
- **William Paterson University**, Wayne, NJ

* Contact Union County College for the most current information



Tuition & Fees

GUIDELINES FOR PAYING TUITION AND FEES

A current schedule of tuition costs and fees, is available on the College's website at:
www.ucc.edu/admissions/payingforcollege/policies.

Please visit the Office of Student Accounts on the College's Cranford, Elizabeth, or Plainfield campus, call (908) 709-7063 or e-mail StudentAccountsOffice@ucc.edu for more information.

PAYMENT POLICIES

As part of the registration process, all students should stop at the Office of Student Accounts to settle their account. Students who do not settle their accounts by the posted due date for the semester will have their schedules voided.

Important Note Regarding Payment Policies: Payment (or financial aid) is due by the posted due date for the semester. If your unpaid balance exceeds \$100, **your entire schedule may be voided** – not just the most recent transaction. However, do not expect this policy to absolve you of financial liability. When you register for classes you are agreeing to purchase a seat in each class you select, and you are responsible for payment of the tuition and fee charges. Should you choose not to begin the classes for which you have registered, **you must officially drop** those classes according to the published deadlines to avoid being charged. Failure to attend a class does not constitute an official drop, and you will be held responsible for the associated charges.

PAYMENT OPTIONS:

The College accepts Visa, MasterCard, and Discover in addition to cash, checks, and money orders. The appropriate college forms should accompany payment.

- Payment of a prior semester balance must be in cash, certified check, money order, or credit card.
- For credit card payments, where the cardholder is someone other than the student, a written statement must be provided by the cardholder authorizing student use of the card for payment to Union County College.
- All checks and money orders should include the student's College Identification Number (not the social security number) on the face of the document.
- Credit card and personal check (E-check) payments can be made online using webservices.
- The College offers a Deferred Payment Plan to qualified students enrolled in six or more credits during Fall and Spring semesters. Deferred payments are not available for Winter and Summer sessions.
- Students who have estimated financial aid awards on their account at the time of registration may be able to apply such aid towards their charges. If financial aid does not cover all charges the remaining balance is due from the student. In addition, students will be responsible for making payment to the College in the event that any Financial Aid award is revised or cancelled.

- Students participating in the Federal Subsidized, Unsubsidized or PLUS Stafford Loan programs should be aware that there may be an Origination Fee of up to three percent. These fees are deducted from the loan proceeds and should be taken into consideration in order to avoid an outstanding balance.
- The College reserves the right to require payment in cash when circumstances so warrant.

OUTSTANDING BALANCES

- All accounts with outstanding balances are subject to a monthly late fee until the balance is paid in full. Students who fail to pay their outstanding balance may be turned over to a collection agency and will be responsible for the added cost of collection, court costs, and legal fees. The cost of collection can add as much as 35% to 40% to the amount already owed and will result in the disruption of your credit worthiness when the collection agency reports the delinquent account to national credit bureaus.
- A "Hold" will be placed on the student's account and the student will not be allowed to receive grades, letters of recommendation, or transcripts and will not be permitted to register for subsequent semesters until such debts are settled.
- In the case of those academically eligible to graduate, conferment of the degree will be withheld.
- The student is liable for the full retail-price replacement of any materials, which cannot be returned because of loss or damage.

REFUND POLICIES:

REFUNDS

- Refunds can take up to four weeks to be processed and checks to be drawn. Note that refunds for payments made by credit card will be credited to the card from which the payment was made.
- Refund amounts are determined by the official drop date recorded on the student's account.
- "Withdrawn" or "W" grades are not eligible for refunds and students are responsible for payment for these courses.
- Students are financially responsible for all semester tuition and fee charges incurred despite their non-attendance. Students should adhere to the college policy regarding dropping or withdrawing.
- Balances in excess of charges, including deposits, held at the time of withdrawal will be applied to outstanding charges. Any overpayment of tuition or fees will be refunded. Financial aid program payments applied to charges are subject to recalculation in accordance with Federal and State regulations. Refunds will be made in accordance with the Federal refund allocation schedule.

COURSES DROPPED PRIOR TO THE START OF A SEMESTER

Courses officially dropped prior to the first scheduled day of a semester will result in a 100% credit of tuition and fees –with the exception of the Registration Fee which is not refundable.

COURSES DROPPED AFTER THE START OF A SEMESTER

Students may add or drop courses without penalty during the drop/add period indicated in the Academic Calendar, provided the number of credits dropped is equal to the number of credits added. If drops/adds take place at differing times during the drop/add period, students will be charged or credited in accord with the College's tuition and refund policy.

At the conclusion of the drop/add period, students will be refunded or charged based upon whether the total credits dropped equals the total credits added. If the net of the credits added and dropped does not equal, the student's account will be refunded or charged in accord with the College's Tuition and Refund policy indicated below.

Fall and Spring Semesters (Regular and Late Start)

Courses officially dropped from the first scheduled day of the semester through the fifth day of the semester will result in a 50% credit of tuition and fees –with the exception of the Registration Fee which is not refundable.

After the fifth day of the semester, no reduction in charges will be made for dropped courses.

Summer and Mini Semesters

Courses officially dropped from the first scheduled day of the semester through the third day of the semester will result in a 50% credit of tuition and fees –with the exception of the Registration Fee which is not refundable.

After the third day of the semester, no reduction in charges will be made for dropped courses.

Winter Semester

Courses officially dropped on the first scheduled day of the semester will result in a 50% credit of tuition and fees –with the exception of the Registration Fee which is not refundable.

After the first day of the semester, no reduction in charges will be made for dropped courses.

Withdrawals By Federal Financial Aid Recipients

- Federal Regulations require that Federal financial aid recipients be subject to a reduction of their financial aid if they withdraw or stop attending all classes.
- All financial aid recipients are responsible for the costs incurred for tuition, fees, books, and related costs should their financial aid be revised or cancelled for any reason.
- Students who do not pay an outstanding balance resulting from a change in their financial aid will be turned over to a collection agency and will be responsible for the added cost of collection, court costs, and legal fees. The cost of Collection can add as much as 35% to 40% to the amount already owed and will result in the disruption of your credit worthiness when the collection agency reports the delinquent account to national credit bureaus.

FEES:

Academic Learning Center Support Fee

Charged to all students enrolled in six or more credits during Fall and Spring semesters.

BOOK ALLOWANCES

- Available for the first four weeks of Fall/Spring semesters, and for the first two weeks of Summer/Mini semesters.
- The Book Allowance Program is offered as an aid to assist students with the cost of textbooks and essential course related supplies. Students should be financially prepared for out of pocket expenditures when their maximum Book Allowance has been reached.
- If your Financial Aid award (exclusive of any loan programs, college work study or federal work study) is greater than the tuition and fee charges for the semester, you may be eligible for a Book Allowance.
- Book Allowance purchases are charged against the student's financial aid. Purchases over the amount of the Book Allowance are the responsibility of the student.
- In the event Financial Aid is reduced or cancelled, all Book Allowance purchases are the responsibility of the student.
- Some students may not be eligible to participate in the Book Allowance program but may be covered under a Book Voucher program. Check with the Office of Student Accounts for details.

OFFICE OF STUDENT ACCOUNTS HOURS OF OPERATION

	CRANFORD	ELIZABETH	PLAINFIELD
Monday	8:30 am to 4:30 pm	8:30 am to 4:30 pm	11:30 am to 7:30 pm
Tuesday	8:30 am to 7:30pm	11:30 am to 7:30 pm	Closed
Wednesday	8:30 am to 7:30pm	11:30 am to 7:30 pm	Closed
Thursday	8:30 am to 4:30 pm	8:30 am to 4:30 pm	8:30 am to 4:30 pm
Friday	8:30 am to 4:30 pm	Closed	Closed

Additional office hours will be posted for registration periods.



County Chargebacks

- Students who reside in New Jersey but outside of Union County, may be eligible for the lower in-county tuition rate if they qualify for a chargeback. The Union County College Office of Student Accounts must be provided with a properly signed Certification of Inability to Admit from your home county college and Certification of Residency forms.
- The Certification of Inability to Admit must be completed by the Registrar or Admissions Officer of your home county college. The Certification of Residency form must be completed by the county fiscal officer (treasurer) of your home county.
- You will be charged in-county tuition if you submit these forms with your registration. If you paid out-of-county tuition and subsequently file properly executed chargeback forms, your charges will be reduced to the in-county rate, and if applicable, a refund will be issued.
- Students have 30 days from the first day of the regular semester to submit the required chargeback certificates.
- Students who register for six or more credit hours during Fall and Spring semesters may be eligible to participate in the College Deferred Payment Plan.
- There is a fee to participate in the Plan.
- In most cases, students will need to pay at least 50% of their charges, plus the fee, at the time of registration AND sign a promissory note to pay the remaining balance no later than 30 days after the start of the semester.
- Students must report, in person, to the Office of Student Accounts at any of our three campuses to participate in the plan. We do not currently accept deferred payments over the web or by mail.
- Students who fail to make full payment by the date specified on the promissory note will be charged a late fee per month until the balance is paid. Once a late fee has been added to an account, the student is no longer eligible to participate in the Plan.
- There is no Deferred Payment option during the Winter and Summer sessions.

Employer, Outside Agency, Organization or Scholarship Tuition Assistance Plans

- Prior to registration, students should have the specifics of their Employer, Outside Agency, Organization or Scholarship Tuition Assistance Plan reviewed by the Office of Student Accounts to insure that the plan meets College guidelines.
- Students are required to complete and sign a Statement of Responsibility for Financial Obligations at the Office of Student Accounts.
- All balances should be paid in full prior to registering for subsequent semesters.
- Should the employer or other outside agency, organization or scholarship fail to pay in a timely fashion, the student will be responsible for the cost of attending Union County College.
- If the student's bill continues to go unpaid, a hold will be placed on the student's account preventing registration as well as the issuance of transcripts, Letters of Recommendation, and grade reports.
- If the account is sent to collection, the student will be responsible for the principal as well as the cost of collection. The cost of Collection can add as much as 35% to 40% to the amount already owed and will result in the disruption of your credit worthiness when the collection agency reports the delinquent account to national credit bureaus.

Hospitalization Fee

New Jersey Public Law 1989 Chapter 1, requires all students who are enrolled full-time (12 or more credit/hours) in public colleges to carry health insurance that provides basic hospitalization coverage.

- All full time students are assessed a Hospitalization Insurance Fee per semester. Full-time status is determined as of the end of the add/drop period for the semester.
- The College policy is offered through T. L. Groseclose Associates. A detailed brochure explaining the benefits covered under the Group Student Accident and Sickness Insurance Program can be obtained at the Office of Student Accounts. Additional information may be obtained by calling T. L. Groseclose Associates at (609) 279-1507.
- If you are covered under another policy, and do not wish to be included in the College plan, you must submit an Insurance Waiver Request form and proof of coverage to the Office of Student Accounts during the first 30 days of the semester. Thereafter, no Insurance Waivers will be accepted. Students must complete an Insurance Waiver Request for each semester that Hospitalization coverage is not desired. Waivers can be submitted in person or on-line from the Union County College Web site.
- Part time students who are enrolled in at least six credit hours may request to purchase the insurance by notifying the Office of Student Accounts and paying the required premium within the first 30 days of the semester.

Military Personnel

Union County College participates in a number of programs which provide benefits to veterans, active duty soldiers and reservists. Contact the College Admissions Office for additional information. (Also see New Jersey National Guard Waivers below)

New Jersey National Guard Waivers

- The National Guard Waiver covers the cost of tuition only up to a maximum of 16 credits/hours per semester. Students are responsible for the payment of all other applicable fees.
- The National Guard Waiver program requires that the student provide a Commanders Certificate of Eligibility from their unit's authorized representative.
- Students desiring to utilize the National Guard Waiver are required to complete the application process for Financial Aid. (see the Financial Aid section for additional details.) Students who are eligible for aid must exhaust all such aid prior to utilizing a National Guard Waiver.
- All students must submit the appropriate forms at the time of registration including verification that they have completed the Financial Aid application process.

New Jersey Professional Impact

(formerly Abbott Scholars)

Students whose tuition and fees will be covered under the program must have the appropriate authorization at time of registration.

Parking Fee

Students who desire to park on campus – or other designated parking facility – must purchase a parking permit. Available at the Office of Student Accounts, permits are valid for an academic year (September 1 through August 31). There is no proration of the fee for part year enrollment.

Penalty Fees

- **Late Registration Fee** – A Late Registration Fee will be assessed to all students who start the registration process on the first day of the semester and thereafter.
- **Return Check Fee** – A Return Check Fee will be assessed to all students if the bank does not honor their check. Students will be required to pay all current and future balances in cash, certified check or money order once a Returned Check Fee has been charged to their account.
- **Late Payment Fee** – All accounts with outstanding balances are subject to a monthly late fee until the balance is paid in full. Additionally, students who are on a Deferred Payment Plan will not be eligible for future Plan participation.
- **Student Schedule Reinstatement Fee** – Assessed to all students who seek to have their schedules reinstated after the official college withdrawal date. Students must provide the appropriate documentation for re-admittance required by the Registrar and must pay all tuition, fees, and related costs for the semester in addition to the Schedule Reinstatement Fee.

Registration Fee

Non refundable fee charged each semester upon registration. Students who drop all of their courses, or are voided from all courses for non-payment will be charged an additional registration fee if they re-register.

Registration Fee For International Students

A fee will be assessed to International students seeking to obtain an INS Form I-20 Certificate of Eligibility for Non-Immigrant (F1) Student Status from Union County College. This is a non-refundable registration fee but will be applied toward the first semester tuition upon successfully obtaining the INS Form I-20.

Security Enhancement Fee

A charge per credit hour for the expansion and improvement of security and emergency communication systems at all College campuses.

Senior Citizens Waiver

- New Jersey residents 65 years of age or older, may enroll at Union County College without the payment of any tuition charges in regularly scheduled courses provided that classroom space is available.
- At time of registration, senior citizens are responsible for paying the registration fee, senior citizen processing fee, and an annual parking fee, if a parking permit is purchased.
- Students may register on the last day of the Add/Drop period for the semester. Students who register prior to the designated date CAN NOT apply the Senior Citizens Waiver towards the cost of such courses.

Trade Act Program

- Attendance at Union County College under the Trade Act Program requires that the student present at time of registration a Letter of Introduction and Enrollment Agreement from the State of New Jersey Department of Labor.
- In addition, a completed contract (NAFTA-7 (R-9-96)) must be on file in the Union County College Grants Department.
- Students participating in this program may register at any time. The program may cover tuition and selected fees.

Transcript Fee

There is a fee for each official transcript copy. Transcripts will not be issued unless the student has met all financial obligations to the College.

Unemployment Waivers

- The Unemployment Waiver covers tuition as well as general, technology, athletic/ wellness and academic learning center support fees. Students are responsible for payment of all other costs at time of registration.
- Students desiring to utilize the Unemployment Waiver are required to complete the application process for Financial Aid. (Contact the Financial Aid Department for additional details.) Students who are eligible for aid must exhaust all such aid prior to utilizing an Unemployment Waiver.
- All students must submit the appropriate forms at the time of registration including verification that they have completed the Financial Aid application process.
- Financial aid will first be applied against tuition and waived fees. Remaining aid, if any, will be applied against the fees that are the responsibility of the student.
- Students will be allowed to register on a space available basis on the last day of the Add/Drop period for the session/semester. Students who register prior to the designated date CAN NOT APPLY the Unemployment Waiver towards the cost of such courses.
- Waiver program is available to Union County residents. NJ residents who live outside of Union County may use the waiver only if their home county community college does not offer the courses they are taking. Documentation from the home college must be provided at time of registration.

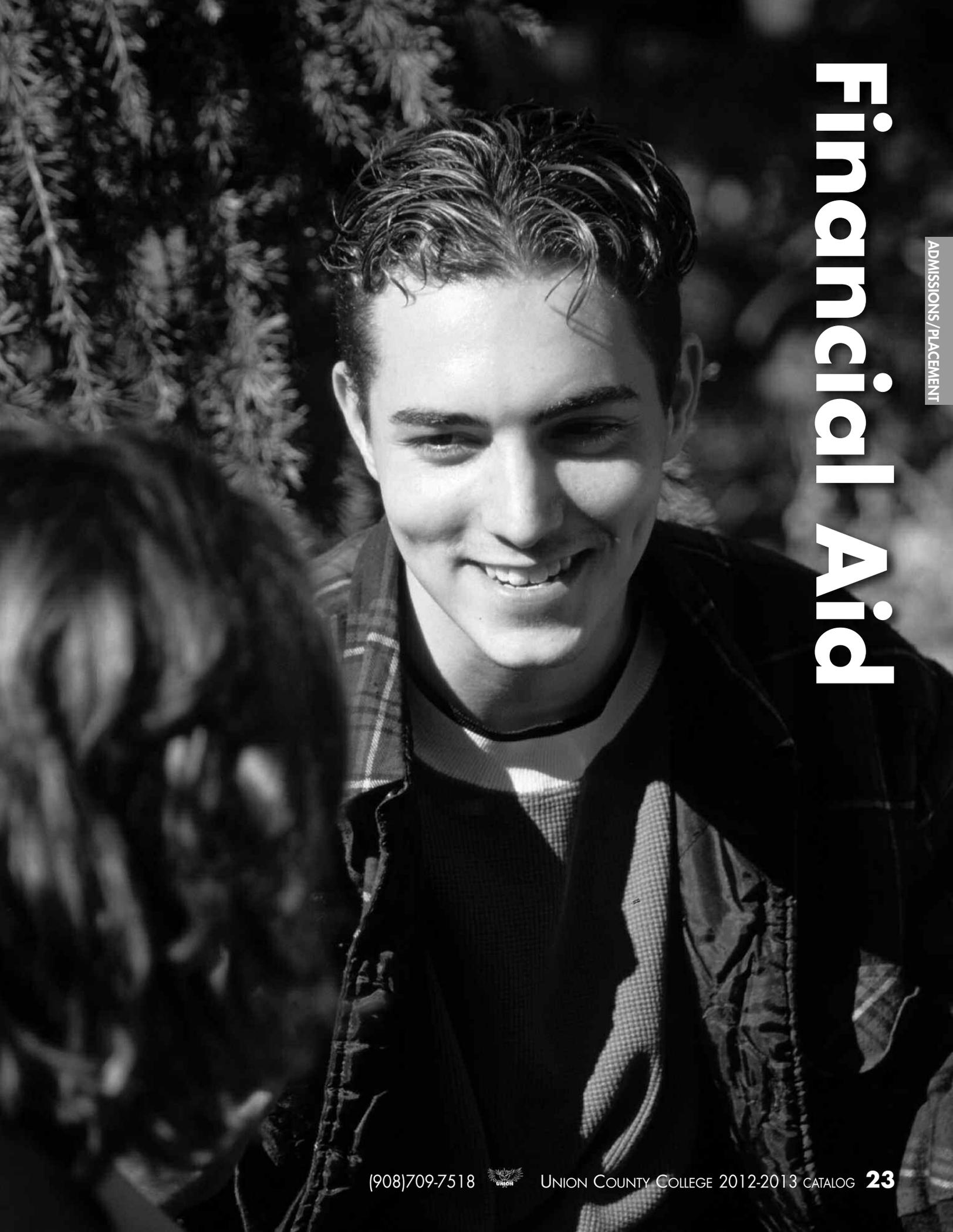
Volunteer Tuition Waiver Program (Chapter 145)

- This program covers the cost of Tuition only and is available for active members of a volunteer Fire Company or Rescue Squad and their dependent children and spouse. Individuals will receive a tuition credit, not to exceed a maximum amount over a four-year period per family.
- The student is responsible for the payment of all other costs at time of registration.
- The Volunteer Tuition Waiver Program requires that the student provide verification of service performed such as a completed Municipal Certification for Active Members of volunteer Fire Company, First Aid or Rescue Squad.
- Students desiring to utilize the Chapter 145 Waiver shall complete the appropriate Financial Aid application process and, if eligible, such aid must be exhausted before applying the Chapter 145 waiver.
- Students will be allowed to register for classes on a space available basis on the last day of the Add/Drop period for the session/semester.
- Students who register for courses prior to the designated date CAN NOT APPLY the Chapter 145 waiver towards the cost of such courses.

Workforce NJ Development Program

- Students utilizing this program should plan on registering well in advance of the start of the semester to insure that their contract is in place.
- Students must have the appropriate forms and a fully executed contract at time of registration.
- The program may cover tuition. The cost to complete the program of study may not be fully covered and students should be aware of program limitations.

Financial Aid



Welcome. If you think that you can't afford Union County College, the Financial Aid Office is here to help. Our dedicated staff is here to assist you throughout the financial aid process – from application to graduation. We encourage you to apply for financial aid annually. Both full and part time students are eligible for financial aid and you may be eligible for more than you think.

Application Procedures

Applying for financial aid is simple. You will need to complete only two forms to apply for all federal and state scholarships and grants, federal loans, federal work study, and all institutional scholarships. Full and part time students are eligible for financial aid although some forms of aid will be adjusted if you are less than full time.

Step 1: Complete your FAFSA

Your first step is to complete your Free Application for Federal Student Aid (FAFSA). You can **complete your FAFSA online at www.fafsa.gov**. Make sure to list Union County College's **federal school code, 002643**, so that your FAFSA will be sent electronically to our office.

If you are a dependent student, you will need to have you and your parent's Federal Income Tax Returns and W-2s. If you are an independent student, you will only need your (and your spouse's if you are married) Federal Income Tax Returns and W-2s. For more information on determining your dependency status for the FAFSA, please refer to our website.

Step 2: Apply for Scholarships

Once you have submitted your FAFSA, you should also **complete the Scholarship Application**. This is the application for all scholarships. Last year, we awarded over \$1 million in institutional scholarships to our students. If you are interested in the types of scholarship available at Union County College, please visit the Scholarship section of the Paying For College website.

Step 3: Review your Student Aid Report

Once you have submitted your FAFSA, the Federal Department of Education will process your FAFSA and send a copy to you in the form of a Student Aid Report (SAR). Your SAR will be sent to you electronically if you listed an email address on your FAFSA.

Please review your SAR and notify our office if you made any mistakes. We will walk you through how to correct them.

Step 4: Review your Student Eligibility Notice

The Federal Department of Education will also send your information to all of the colleges listed on your FAFSA, as well as to the New Jersey Higher Education Student Assistance Authority (HESAA). You will receive a **Student Eligibility Notice (SEN)** once your eligibility for state grants is determined.

Step 5: Check your financial aid status on line

About a week after you have submitted your FAFSA, you should be able to **view your financial aid status online through Owl's Nest**. You can view any documents that our office needs in order to complete determining your eligibility for financial aid in the **Communications** section of Owl's Nest. If we require any forms to be completed, **you can download those forms from our Forms page**. Also, you will see your financial aid awards once they have been awarded in the **Financial Aid** section of Owl's Nest.

You will also receive notification via the mail of any outstanding documents as well any financial aid awards, including any changes in your awards.

Financial Aid Application Deadlines

A Free Application for Federal Student Aid (FAFSA) must be completed each year and one FAFSA serves the entire academic year (Fall, Spring, and Summer semesters). The FAFSA becomes available each January for the following Fall and will remain available through the following summer. We recommend that you complete your FAFSA as soon as you have completed your tax returns.

You should also complete your Scholarship Application, and Freshman Scholarship Application. Scholarships are awarded on a rolling basis once the prior year's Spring grades have been posted.

If you previously received a Tuition Aid Grant (TAG) you will need to **complete your FAFSA by June 1st** in order to be considered for the grant in the next year. For more information on state grants, please visit the website for the State of New Jersey Higher Education Student Assistance Authority (HESAA) at **www.hesaa.org**.

Certain funds are available on a limited basis; therefore, it is in your best interest to apply as early as possible. Union County College recognizes that students make late applications due to circumstances beyond their control. The College will give full consideration to all applications received after the dates indicated above, in accordance with availability of financial aid funds and the student's eligibility for funds.

Eligibility

To be eligible for Federal and State financial aid programs, you must:

- Be accepted as a student in an eligible certificate or associates degree program
- Be making satisfactory academic progress for financial aid purposes
- Have a high school diploma, General Education Development (GED) certificate, have successfully completed at least 6 college level credits applicable toward a degree, or received a minimum score on a federally approved ability-to-benefit test
- Be a U.S. citizen or eligible non-citizen (this includes green card holders).
- Have a valid Social Security Number.
- Register with Selective Service if required.
- Not be in default on a previously awarded student loan or owe a refund on a previously awarded grant.

Different forms of financial aid may have additional eligibility criteria.

Types of Aid Available

Union County College offers many types of financial aid from federal, state, and institutional sources to help you fund your education. Below are some of those types of financial aid. The information below includes grants, scholarships, loans, and work study. All aid is subject to available federal, state, and institutional appropriations.

FEDERAL FINANCIAL AID

Federal Pell Grant – A Federal Pell Grant, unlike a loan, does not have to be repaid. If you have not earned a bachelor's or a professional degree you may be eligible for a Federal Pell Grant. The maximum Federal Pell Grant for the 2010-2011 academic year is \$5,550 depending on your financial need. This grant

may be adjusted based on changes in the number of credits that you registers for.

Federal Supplemental Educational Opportunity Grant (SEOG) – This grant is for undergraduates with exceptional financial need. If you are a Pell Grant recipient with the lowest expected family contribution (EFC), you will be considered first. Just like Pell Grants, the FSEOG does not have to be repaid. Most awards range from \$100-\$200.

Federal Work Study (FWS) – If you would like a part-time job and have financial need, you may be eligible for federal work study, allowing you to earn money to help pay your education expenses. The program encourages community service work and work related to your course of study. For more information on work study, please refer to the Federal Work Study portion of our website.

Federal Direct Loans – Federal Stafford Student Loans are low-interest loans. The lender is the U.S. Department of Education rather than a bank or other financial institution. Since the loan is guaranteed by the U.S. Department of Education and the application is the FAFSA, you will not need a credit check for this loan.

	2012-2013-2013 INTEREST RATES
Subsidized Loan	6.8%
Unsubsidized Loan	6.8%
PLUS (Parent) Loan	7.9%

A subsidized loan is awarded on the basis of financial need. The government will pay the interest (subsidize) on a subsidized loan while you are in school (and during any other deferments) as well as during your grace period. The interest will accrue on an unsubsidized loan throughout the life of the loan.

Continuing students must have a least a 2.00 cumulative GPA in order to receive a student loan.

Parents of dependent students may borrow a PLUS loan to assist with paying for a student's education.

For more information on Direct Loans, please see the **Loans** page on our website.

STATE OF NEW JERSEY FINANCIAL AID

Tuition Aid Grant (TAG) – TAG is awarded based on financial need. The maximum TAG award is over \$2200 annually and does not need to be repaid.

Educational Opportunity Fund (EOF) – Please refer to the EOF section of our catalog.

NJ Student Tuition Assistance Reward Scholarship (NJ STARS) – If you are full time and graduated in the top 15% of their high school class within the past year you may be eligible for this program. Please view our website for detailed and up to date information on the NJ STARS program.

NJ CLASS – This fixed rate, credit based loan program offers flexible repayment options and a low interest rate.

For more information on state grants, scholarships, and loans, please visit the HESAA website at www.hesaa.org.

UNION COUNTY COLLEGE SCHOLARSHIPS

Union County offers a wide variety of scholarship to help you achieve your educational goals. Last year, Union County College awarded over \$1 million dollars in scholarships to our students. Scholarships are a form of financial aid that does not have to be repaid and we have over a hundred scholarships available to students each year.

Each scholarship has different criteria and there are scholarships available for almost any student. Scholarships criteria can be based on GPA, major, high school, city, community service, etc. The Scholarship Application is the application for all of these scholarships. Some scholarships require that you complete the Free Application for Federal Student Aid (FAFSA) in order to be eligible. Incoming first time freshman should also complete the Freshman Scholarship Application and provide their official final high school transcript once they graduate. For more information, please view the Scholarships page of the Financial Aid website.

Rights and Responsibilities

You have the right to:

- Have complete information regarding fees, payment, and refund policies available to you.
- Have all personal and family financial information treated with confidentiality.
- Appeal to the Financial Aid Office if the student's situation warrants reconsideration of their financial aid eligibility.

It is your responsibility to:

- Advise the Financial Aid Office if the student changes his/her enrollment status from full-time to less than full-time.
- Submit all address changes to the Admissions office in a timely manner.
- Advise the Financial Aid Office of any additional aid received not indicated on your financial aid award notice.
- Inform the Financial Aid Office if you withdraw from the College or from all of your classes.
- Submit to the Financial Aid Office any required documentation for verification of financial aid and other relevant information pertaining to student's application.
- Give permission to the Financial Aid Office to relate pertinent financial, academic, and other information to donors of aid as requested.
- Maintain satisfactory academic progress for financial aid.
- Report grants and scholarships in excess of tuition, books, and fees as taxable income for the Federal Government.



FINANCIAL AID POLICIES

Satisfactory Academic Progress For Financial Aid Recipients

All students receiving financial aid from federal and state sources must be making satisfactory academic progress at Union County College. Student may be monitored for satisfactory academic progress each fall, spring, and summer session that they apply for financial aid based on their cumulative academic history.

For our entire Satisfactory Academic Progress (SAP) Policy, including information about support services available to help you maintain SAP as well as how to appeal if you are not making SAP, please visit the Satisfactory Academic Progress page of our website.

Official or Unofficial Withdrawal From the College

If you receive federal aid and withdraw or stop attending some or all of your classes, Union County College is required to recalculate your eligibility for all of your financial aid awards. You may be required to return some or all of your federal financial aid if you have not completed at least 60% of the semester. In addition, you may be required to return some or all of your state and federal financial aid if you withdraw or stopped attending some or all of your courses.

You are not entitled to any federal or state financial aid for courses that you do not attend.

For more information on how withdrawing can affect your financial aid, please visit the **Policies** section of the **Paying for College** page of our website.

Retaking Coursework

You are eligible to receive federal financial aid for only one retake of a previously passed course.

SCHOLARSHIPS

A scholarship is a sum of money awarded to a student to be used for educational expenses while attending Union County College. Scholarships are available from a variety of sources including:

State of New Jersey



New Jersey Student Tuition Assistance Reward Scholarship (NJ STARS)

High school graduates who finish within the top 15 percent of their class and meet all other criteria are eligible for this award within two years of the year of graduation.

Applicants must first apply for all need-based federal and merit based-state financial aid grants first, such as the Pell Grant, the Tuition Aid Grant (TAG), and Distinguished/Urban Scholars Award. After that, NJ STARS will cover the remaining balance of tuition and qualified fees. Those who qualify will have up to two years from the date of high school graduation to enroll and begin using the NJ STARS scholarship at Union County College.

Distinguished/Urban Scholar Awards:

The actual amount of these state awards is determined by the NJ Higher Education Student Assistance Authority and is indicated on the official Student Eligibility Notice (SEN) sent to students by that agency.

County of Union

Freeholder Scholars Program

The Union County Board of Chosen Freeholders has established a "Freeholder Scholars Program" for Union County residents. The scholarship covers the cost of Union County College tuition and fees for entering or returning students who meet the following criteria.

- Full time enrollment status at Union County College (12 or more credits per semester)
- A minimum of 3.0 or B average achieved in high school
- Union County resident (per existing Union County College residency policy)
- Annual family income of \$75,000 or less

Students applying for the Freeholder Scholars Program must file for federal and state financial aid; the Freeholder Scholars Program award will cover the difference between Union County College tuition and fees and financial aid received up to \$1,500. Students are eligible to receive the scholarship for four consecutive fall/spring semesters providing they maintain a 3.0 grade point average at the College.

Freeholder scholarships are subject to appropriation of funds by the County of Union.

Union County College Foundation Scholarships

To help defray the cost of tuition, fees, and other education-related expenses, you may be eligible to receive a Union County College scholarship. In support of Union County College's mission to provide affordable, accessible and quality education, the Union County College Foundation invites students to apply for any of the hundreds of scholarships that the College offers annually.

There is a wide range of criteria for scholarship awards. To be eligible, students must be enrolled in a degree or certificate program for at least six credits per semester. Scholarships may be based on a number of considerations, including academic merit.

Application forms and information on how and when to apply may be obtained from the College's website, www.ucc.edu/Becoming a Student/Paying for College/Forms/Scholarship Application. Students are urged to complete the necessary applications and recommendations as soon as possible, as scholarships are awarded on a first-come/first-served basis.

In order to be considered for the scholarships which specify financial need, scholarship applicants must also complete the Free Application for Federal Student Aid (FAFSA).

Scholarship recipients must comply with the following:

- attend the annual Scholarship Reception,
- submit a thank you letter to the donor via the Union County College Foundation,
- maintain a current mailing address and telephone number with the Union County College Admissions Office,
- declare a major and
- sign a pledge stating intent to graduate on the scholarship application.

The Union County College Foundation is extremely grateful to those donors whose generosity has made these scholarships possible. A complete listing of the most current scholarships, along with the criteria, may be found on the Foundation's website: www.uccfoundation.org.

Information on establishing an annual or endowed scholarship may be obtained by contacting the Union County College Foundation, 1033 Springfield Avenue, Cranford, New Jersey 07016, (908) 709-7505, uccfoundation@ucc.edu.

CURRENT UNION COUNTY COLLEGE SCHOLARSHIPS

as of 12/2011

Alumni Association Part-Time Scholarship
Amateur Astronomers, Inc./E.T Pearson Scholarship
American Association of University Professors Scholarships #1, #2, and #3
American Way Scholarship
Virginia and Henry Apelian Scholarship
The Atrion Corporation Scholarship
The Barnes-Taylor Family Memorial Scholarship
Alan R. Barwielek Memorial Scholarship
James C. Bashe Memorial Scholarship
Eugene H. Bauer Family Scholarship
Ernest & Georgia Bell Scholarship
Ceinwen Bergen Memorial Scholarship
Elizabeth J. Bielefeld Memorial Scholarship
Hermann J. Bielefeld Memorial Scholarship
Donald E. Billiar Memorial Scholarship
Samuel Blake Memorial Scholarship
Elizabeth M. Blatz Scholarship
Joan and Pete Blatz Scholarship
Martha B. Bracher and Marguerite Hessemann Scholarship
The Nadine Brechner Scholarship
Bristol - Myers Squibb Scholarship
The Brown Family/Ralph Jimenez Memorial Scholarship
Drs. Thomas and Tressa Brown Scholarship
Dr. Tressa and Dr. Thomas Brown Scholarship
Bruckner Family Scholarship
James A. Burns Memorial Scholarship
Rosemary and Eugene Carmody Scholarship
The Celgene Future Caregiver Award Scholarship
Cento Amici Scholarship in Memory of John Neiswanger
Central Jersey Road Runners Club Scholarship
The Christ Fellowship Kingdom Advance Scholarship
Colonna/Cormier Scholarship
Camille and Robert Cormier Scholarship
Corporate Chefs Scholarship
Daniel G. Covine Memorial Scholarship
Judge Cuddie E. Davidson, Jr. Memorial Scholarship
Charles T. Davis, Sr. Scholarship
Developmental English Scholarship
Rachel Ann Drinkwater Scholarship
Dubitsky-Belmonte Scholarship
Engineering Department Scholarship
Faculty Scholarship
Donald J. & Margaret V. Feaster Scholarship
Fireman's Mutual Benevolent Assoc. Local 37, Cranford Scholarship
Dr. Sondra Fisinger Scholarship
T.C. Flynn & Megan Ryan Morris Scholarship
The Barbara H. Foley Scholarships #1 and #2
Fox Family Scholarships #1 and #2
The Frog Crossing Foundation Scholarship
Thomas Gallagher Scholarship
Dorothy Gasorek Memorial scholarship
Arthur Geilfuss Memorial Scholarship
Emma Geilfuss Memorial Scholarship
General Endowment Scholarship
Gibson Family Foundation Scholarship
Dr. Edward Golda Scholarship
Robert M. Gray Memorial Scholarship
John & Patricia Griffith Scholarship
Dr. Toby Grodner Scholarship
Elizabeth R. Gruen Memorial Scholarship
Richard & LaVerne Haberski Scholarship

Lavinia & Michael Hand Scholarship
Robert F. Hand Scholarship
Thomas H. Hannen, Sr. Scholarship
Margaret B. Hanson Memorial Scholarship
Professor Donald Hedeem Scholarship
Sherry Heidary Scholarship
Ethel M. Heim - A Friend of the College Scholarship
Everett A. Heim Memorial Scholarship
Herran-delValle Scholarship
Hertling/Nickell Family Scholarship
Hispanic Law Enforcement Association of Union County, Inc.
Edward & Patricia Hobbie/Loretta Gleason Castaldo RN, Nursing Scholarship
Robert Hudak Memorial Scholarship
Institute for Intensive English Scholarship
Sandra Itzkoff Memorial Scholarship
Kenneth W. and Mildred F. Iversen Scholarship
Jacobson Family Scholarship
Sharon Johnson Educational Excellence Scholarship
Alfred and Caryl Kaercher Scholarship
Bonnie Sue Kaplan Memorial Scholarship
Karma Foundation Scholarship
J. C. Kellogg Foundation Scholarship
Jean Kellogg Scholarship
Kiwanis Luerich Scholarship
Barbara Ann Kloss Scholarship
Ferdinand Klumpp Scholarship
Raymond B. and Lillian B. Krov Scholarship
Esther and Jerome Krueger Scholarship
Harry Lampel Scholarship
Dolores M. Lanzner Memorial Scholarship
Lawrence-Collins Scholarship
Lessner Family Scholarship
Leigh and Julian Levitt Scholarship
Linden Lions Club Scholarship
L'OREAL USA Scholarship
Richard O. Luster Memorial Scholarship
Rebecca Lydon Memorial Scholarship
MacDonald/McMinn/Whitaker Scholarship
Dr. Kenneth C. MacKay Memorial Scholarship
Ian MacRitchie Memorial Scholarship
John A. & Ruth Davis Manger Full-Time Scholarship
John A. & Ruth Davis Manger Part-Time Scholarship
Manley-Winsler Foundation Scholarship
Harry B. Martin Memorial Scholarship
Judy Danetz Mayer Scholarship
John H. and Serena M. McCoy Scholarship
James M. McGowan Memorial Scholarship
Dr. William H. McLean Memorial Scholarship
Barbara Neblett Memorial Scholarship
Dr. Richard F. Neblett Memorial Engineering Scholarship
Robert Sydney Needham Memorial Scholarship
Christine S. Nelson Scholarship
Newark Beth Israel Hospital School of Nursing Alumnae Association Scholarship
New Horizons at Union County College Scholarship
New Jersey Haitian Scholarship Fund
Sue Novak, RN, CHPN Nursing Scholarship
Paul J. O'Keefe Memorial Scholarship
Dr. Saul Orkin and Maria Lydia Orkin Memorial Scholarship
Susan Pancurak Memorial Scholarship
Pepsi Scholarship
Perry Family Scholarship
Frank J. Peterpaul Scholarship
Vincent C. Piro Memorial Scholarship

Plainfield Garden Club Scholarship
PNC "Grow Up Great" Scholarship
Emil Prazak Memorial Scholarship
Raudelunas Family Scholarship
Eleanor B. Reiner Foundation ASL/Deaf Studies Scholarship
Ann Richards Memorial Scholarship
Andrea and Victor M. Richel Family Foundation Scholarship
Richel-Lepree Family Scholarship
Susan Bashe Robertson Memorial Scholarship
Dr. John J. Russell Memorial Honors Studies Scholarship
The Sabatino Family Scholarship
Schering-Plough Foundation Allied Health Scholarship
Ben A. Sciarillo Memorial Scholarship
September 11th Memorial Scholarship
C.W. Sharp and T.L. Murphy Scholarship
Taras Shevchenko Scholarship
Arthur, Caroline & George Small Memorial Scholarship
Roy W. Smith Memorial Scholarship
Dr. Wallace Smith & Lisa Chambers Smith Scholarship
Southpole Foundation Scholarship
Rosa Bello Spina Memorial Scholarship
Sophie and Nicholas Stefik Scholarship
Student Government Association Academic Scholarship
Student Government Association Participation Scholarship
Student Government Association Part-Time Scholarship
Student Government Association Partnership for the Future Scholarship
Student Government Association Scholarship
TD Bank Scholarship
Vito Todaro & Joseph Bent Scholarship
UBS Westfield Scholarship
Union County College Adjunct Faculty Scholarship
Union County College Foundation Partnership for the Future Scholarship
Union County College Foundation Scholars
Union County College Foundation for Part-Time Scholarship
Union County Freeholders Scholarship
Dean S. Van der Clute Scholarship
Donald and Leona Van Gordon Nursing Scholarship
Madeline M. and Anthony A. Vertelis Scholarship
Wachovia Scholarship
Wakefern/ShopRite LPGA Classic Scholarship
John Allison Ward Memorial Scholarship
Sherry Warman Scholarship
Judge Chester and Emily Weidenburner Scholarship
Weidenburner Family Scholarship
The Harry and Travis Weinberger Paramedic Scholarship
William West Scholarship
Westfield Foundation Scholarship
Westfield Rescue Squad EMT Opportunity Scholarship
Westfield Rescue Squad Paramedic Scholarship
Frederick R. Wiehl Memorial Scholarship
Doris Kiefer Wolf Memorial Scholarship
Professor Elmer Wolf Scholarship
Louise Yahalem Scholarship
Yehosua (Joe) Yosifon & George L. Patchell Scholarship
Cynthia Ziolkowski-Angus Memorial Scholarship
Maria & Bruno (Bud) Ziolkowski Scholarship
George P. Zirnite Memorial Scholarship Award
Jack Zissel Memorial Scholarship

Academic Policies



Academic Dismissal / Probation Policies

All students must earn a minimum Cumulative Grade Point Average of 2.0 or better in order to obtain a degree, certificate, or to receive a favorable recommendation from the College. Any Union County College student maintaining less than a 2.0 cumulative grade point average is considered not in good academic standing as defined by the college; and therefore, may be assessed for probation and dismissal decisions. Decisions regarding probation, dismissal, and conditions of re-entrance are made by the Academic Evaluation Committee (AEC). The AEC and the Vice President of Academic Affairs reserves the right to dismiss or request the resignation of a student at any time for poor scholarship, unsatisfactory conduct, or failure to abide by a College regulation. A written notice is sent to a student notifying them of their probation or dismissal status.

The Educational Opportunity Fund (EOF), the Institute for Intensive English, JFK Muhlenberg and the Trinitas Schools, and the University of Medicine and Dentistry of NJ have separate AECs' that make the dismissal decisions for those students enrolled in their programs. These decisions are disseminated to Union County College's Academic Evaluation Committee.

Academic Dismissal – All students failing to reach their minimum cum gpa, as defined by the college after their probation period, will be assessed for dismissal from the college. All dismissed students must wait at least one full semester (excluding Summer Sessions) before they can seek readmission into the college. Students may be readmitted to the college only twice after sitting out in accordance with the dismissal action. Upon readmission, students who are reinstated within 3 years of their dismissal are placed on continued probation for two semesters.

Academic Probation – The College recognizes that transitions are oftentimes difficult for students; and therefore, administers a probationary period and a minimum cumulative grade point average standing for those not in good academic standing. Students who fail to maintain a 2.0 cumulative GPA or better will be placed on probation for one semester, or may be asked to withdraw from the college by the Academic Evaluation Committee, if it deems that student is not benefitting from their college studies. Students are expected to achieve a 2.0 cumulative GPA in their subsequent semester to be able to retain their enrollment in the college.

Appeals – In special circumstances, dismissed students may seek a waiver of their dismissal by submitting a written appeal to the Academic Evaluation Committee for consideration. The Vice President for Academic Affairs has the authority to make all final admission decisions.

Credit Loads – Any student placed on probation may not carry more than 13 credits per semester without approval of the Vice President for Academic Affairs or his designee. The Academic Evaluation Committee (AEC) has the authority to restrict any student's semester's credit load to part-time status and to stipulate the completion of certain courses for all students who fail to meet academic progress as defined by the college.

Students who are reinstated after a successful dismissal appeal will be granted no more than part-time status for that semester of appeal.

Extracurricular Activities – While on probation, students are restricted from holding any office in any organization or extracurricular activity of the College.

Voluntary Withdrawals – Any student in poor academic standing who voluntarily withdraws from the college may not be allowed to enroll in the subsequent semester. Such students will receive a written notification from the AEC indicating their enrollment decision.

Academic Forgiveness

Students who have been absent from the College for two (2) full years, have been readmitted and earned at least twelve (12) credit hours with a 2.0 average or higher on the hours earned after readmission, and who wish to have former grades and credits omitted from the calculation of the grade point average may apply for academic forgiveness to the Vice President for Academic Affairs through an Academic Counselor. The granting of academic forgiveness is not automatic. Each case is judged on its individual merits. Academic forgiveness may be granted only once and is irrevocable. Students interested in academic forgiveness must see a counselor about the ramifications of making such a request.

Academic Freedom

A faculty member is entitled to freedom in the classroom in discussing his or her subject, but should be careful not to introduce into his or her teaching controversial matter which has no relation to his or her subject.

Academic Integrity Policy

Academic dishonesty is defined here as plagiarizing or cheating by any means during a test or examination, or in any work intended to be done independently (such as term papers, reports, essays, take-home examinations or online assignments, picture/photography, plastic sculpture, etc.) and submitted as work to be graded or otherwise evaluated by a faculty member. Permitting another to copy for a test or paper also constitutes academic dishonesty. A more in-depth explanation of proper citation can be found in the MLA Style Manual, the Chicago Manual of Style, Kate Turabian's A Manual for Writers of Term Papers, Theses, and Dissertations, or the Publication Manual of the American Psychological Association. Additional citation guides can be found at each of the Union County College libraries. Librarians will assist students in locating appropriate citation resources, enabling students to "Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally" as outlined in the Information Literacy Competency Standards for Higher Education from the Association of College & Research Libraries (ACRL).

The term "cheating" includes, but is not limited to the following:

- Copying from another person's test or paper.
- Permitting another to copy from a test or paper.
- Using crib notes or any instrument not authorized by the instructor.
- Concealing notes on parts of the body, desk, or other object.
- Using cell phones or texting during examinations.
- Claiming authorship of work that is not your own.
- Buying or selling quizzes, exams or term papers for the purpose of academic evaluation.
- Theft of examinations prior to examination dates.
- Permitting another to:
 - take an examination in your place.
 - complete take-home examinations or other assignments.
 - complete work for the purpose of academic evaluation in on-line courses.

The term "plagiarism" includes, but is not limited to the following:

- Representing someone else's ideas as your own without crediting your source.
- Submitting assignments that do not include proper acknowledgment of the original source. Quoted material must be put in quotation marks and credited to the original source in accordance with the appropriate style manual.

- c. Paraphrasing another's work without proper attribution.
- d. Submitting deliberately misleading attributions or acknowledgments.
- e. Submitting a purchased term paper, or another person's work as one's own.
- f. Failing to properly document information obtained on the World Wide Web or other Internet sources.

The complete "Policy on Academic Integrity, Cheating, and Plagiarism" approved by the Faculty at its meeting on March 25, 2010 is available in the Student Handbook.

Access to Student Records

The academic records of students are kept in the Registrar's Office under the jurisdiction of the Director of Admissions/Records/Registration apart from any disciplinary records, the latter being retained in the office of the Vice President of Student Services. Transcripts of academic records contain only information about the student's academic status. The FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 (FERPA) sets forth requirements designed to protect the privacy of students. The act speaks directly to statutes governing (1) access to student records and (2) the release of such records. Union County College has drafted policies and procedures which comply with the intent of this legislation. Students are therefore assured of access to those educational records described under the law and their individual rights of privacy are equally protected by limitation of transferability of such records without their consent.

If you desire information on the established policy and procedures relative to this act you may visit our website www.ucc.edu or direct your inquiries to the Registrar's Office or the Vice President of Student Services. A copy of the policy statement is posted on the official bulletin board located at each campus.

Animal Dissection

Some dissection of animal specimens is required of students enrolled in the laboratory portions of the following courses: BIO 102, BIO 105, BIO 106, BIO 111, and BIO 112.

Attendance

Students are required to attend classes, laboratories, and clinical sessions for which they are registered. Students are graded according to course objectives and requirements established and distributed by the instructor. While attendance alone cannot be used as a criterion for academic evaluation in any course, the instructor has the prerogative to give or decline opportunities for making up work missed due to absences.

Excessive absence may result in lowering a student's grade. Excessive absence is defined as, with the exception of medically excused absence and religious holidays, more than three cuts in a class that meets three times a week or more than two cuts in a class that meets twice per week. The instructor should be notified of extra-curricular absences prior to missing of class. The application of this policy is left to the individual instructor who, at the beginning of each semester, will announce the specific requirements of his/her course.

The instructor may use the quality of class participation in determining student grades if it has been specified as a requirement of the course. If you are subject to an extended absence (3 or more consecutive days) due to illness, death in the family or legal commitment, contact the academic department secretary.

Auditing a Course

Students may audit courses. These students must meet all admissions and course pre-requisites to register for the course, pay the regular course tuition and fees, and may participate in all course activities, except that they may not be permitted to take examinations in the course, unless approved by instructor.

In no case will the student receive a grade for an audited course. Auditors must secure written permission from the instructor within the first five days of the start of the course they decide to audit. No student may change from audit to credit without written approval from the Vice President for Academic Affairs. Audit is a non-credit grade which will not effect the student's grade point average and an "AU" grade is printed on the student's academic record upon completion of the course. The AU grade is a non-punitive grade.

Caution Regarding Enrollment in Biology and Allied Health Laboratory Courses

Students enrolling in Biology laboratory courses should be aware of the following:

1. The wearing of contact lenses in the Biology Laboratory could cause injury to your eyes. Based on medical advice, the biology and Allied Health Department recommends that contact lenses NOT be worn in the laboratory. If you must wear contact lenses it is recommended that you: 1) wear protective safety goggles while working in the laboratory 2) wash your hands before leaving the laboratory and 3) wash your eyes and lenses immediately after leaving the laboratory
2. The Biology and Allied Health Department strongly advises that if a student is pregnant or expects to be pregnant, they should consult with their doctor concerning the risks of taking any Biology laboratory course.
3. For safety and insurance reasons, children or other guests are NOT permitted in any Biology laboratory
4. For safety and insurance reasons, food and drinks are NOT allowed in any Biology laboratory
5. For safety reasons, students that miss the first two laboratory classes of a semester (when lab safety and safe practices are discussed), may be denied the opportunity to stay enrolled in the class.

Electronic devices in Biology and Allied Health labs and lectures:

1. All electronic devices (cell phones, etc.) must be turned off in all Biology and Allied Health labs and lectures.
2. All electronic devices (cell phones, etc.) must be turned off and stored off desks and out of sight during all tests and quizzes. If the electronic device is used, goes off, or is visibly observed by the instructor during a testing experience, the student may be give a failing grade, as low as a zero. All of these restrictions equally apply to students reviewing exams at a later date

Cell Phones

It is the policy of Union County College that cell phones or similar mobile devices must be turned off during examinations and must be turned off or on vibration mode during regular class and laboratory times unless specific permission for their use is granted. Walking in and out of class or answering calls while in class is prohibited.

Challenge Examinations

In some courses, department examinations (challenge examinations) may serve as the basis for students to receive credits. A student must receive permission from the department chairperson in order to qualify for the challenge exam. Students who pass the examination with the minimum required grade will be awarded credit for the course challenged. The course credit will be recorded on the student's Union County College transcript. Should the student fail the examination, a copy of the challenge exam indicating failure will be filed in the student's folder; no credit will be granted on the Union County College transcript.

Challenge examinations may be used to validate successful knowledge about a course that was taken more than ten years ago. On the other hand, no student who has taken and failed a course shall be permitted to retake the course via the challenge examination. A student who wishes to obtain advanced standing through an approved department examination must obtain a challenge exam from the appropriate department chairperson. If, after a discussion with the appropriate chairperson, the student is deemed eligible, he/she completes the Request for Challenge Examination form and make payment for the exam. The completed form and payment receipt are then brought to the department chairperson so that the time and date of the examination can be determined. The required fees for challenge examinations will be based upon 50 percent of the current course tuition. Students will be furnished general exam requirements. Challenge exams are not offered from all departments.

College Regulations

It is the student's responsibility to review the Union County College website including the Student Handbook available on the college website as well as announcements posted to the website. Students are also expected to review and abide by the rules and regulations set forth in the College Catalog and the Student Handbook.

Student Conduct: There are expectations of personal responsibility that are necessary for the College to fulfill its' higher education mission. These expectations are stated in the form of required behavior that protects the rights of individuals and the rights of groups within the mission, goals, and objectives of the College. The enrollment of a student at the College is a voluntary entrance into the academic community and with such entrance the student voluntarily assumes obligations of performance and behavior imposed by the College relevant to its lawful mission, processes, and functions. These obligations may be much higher than those imposed on all citizens by civil and criminal law.

Student Rights: The College also grants certain rights to students to insure that every student may pursue his/her educational goals in an environment free from unreasonable constraints.

Please refer to the current Student Handbook for a complete listing of student rights and College regulations.

Course Repeats

When a student repeats a course, only the higher grade will be averaged in the cumulative average. A student may not repeat a course more than once, including a "W" grade, to improve the grade received initially without written approval from the department chairperson or coordinator.

Repeating a course when a "D" or better grade was previously recorded will not earn additional credits for the course. Only the grade-point average may be improved.

Course Waivers

Students may request a course waiver or substitution if the required course needed for graduation is not available. Requests for course waivers must be approved, in advance, by the departments involved. Courses waived do not appear on the student's transcript. If the waiver involves more than one department, the waiver form requires the signature of both departmental chairpersons/coordinators. After both departments have approved, the request is then sent to the Vice President for Academic Affairs for final approval. All waivers are kept on file in the Registrar's Office until the student graduates.

Course waivers will be given at the discretion of the involved department chairs. It is strongly recommended that students obtain course waivers before registering for the substitute course.

Curriculum/Program Change Requests

The Curriculum Change Process is coordinated by Counseling Services. **Students in good academic standing may apply to change their program of study after they have completed at least one semester at Union County College. Students meet with and complete the Curriculum Change form with an Advisor and then deliver the signed form to the Admissions Office for processing. Students requesting to change their major to an Allied Health program may be required to complete a new college application. A fee may be incurred for second and subsequent curriculum change requests.**

Examinations, Tests & Quizzes

A two-and-one-half-hour final examination is given at the conclusion of most courses unless there is notice to the contrary. Students are required to take all tests or examinations on the days scheduled when such tests or examinations are announced in advance by the instructor. Make-up tests or examinations shall be given at the discretion of the instructor. Unannounced quizzes may be given at the instructor's discretion.

Grade Changes

Students requesting grade changes must present their appeal to the classroom instructor who awarded the grade. Thereafter, it is the instructor's prerogative to determine whether there is justification for a grade change. If a change is approved, the instructor must secure the required grade change form from the departmental secretary or Registrar's Office. The grade change form must be forward it to the appropriate administrative offices or directly to the Registrar's Office in order for the grade change to be officially recorded on the student's record.

AT NO TIME SHOULD A GRADE CHANGE FORM BE GIVEN TO A STUDENT.

Grades

The College uses the following system of grading to indicate on its records the quality of a student's work:

- A **Excellent**
- B+ **Very Good**
- B **Good**
- C+ **Above Average**
- C **Satisfactory**
- D+ **Below Average**
- D **Unsatisfactory (lowest passing grade) not recognized for transfer**
- J **Continuing Progress but further Developmental course work**
- F **Failing**
- I **Incomplete***
- XF **Incomplete changed to failing***
- S **Satisfactory (for non-credit courses)****
- U **Unsatisfactory (for non-credit courses)****
- UF **Unofficial withdrawal (student stopped attending; did not officially withdraw calculated as a failing grade)**
- W **Official withdrawal**
- P **Pass (for non-credit courses)****
- AU **Audit (no credit)**
- Z **No Grade Submitted by Instructor**

* An "Incomplete" grade may be given in cases of extenuating circumstances approved by Instructor. A grade reported as "Incomplete" at the end of a semester will be permanently recorded as "XF"(=F) if the Incomplete is not removed within the first six weeks of the next regular semester. It is the student's responsibility to make acceptable arrangements with the instructor to complete the course requirements within the period. If the student is unable to contact the instructor, timely notice should then be given to the Department Chairperson. For those students attending JFK Muhlenberg, Trinitas Schools and UMDNJ please refer to that School's student handbook/catalog.

** By Departmental Arrangement.

It is the student's responsibility to report an error on his/her recorded grade to the Instructor within two weeks of posting of the grade. Otherwise, it is assumed that the grade recorded is accurate and will be recorded permanently on the student's record. A student's academic standing is based upon his/her performance in all courses expressed in terms of the "academic average" he/she achieves. In computing this average, the following numerical values are assigned to each letter grade.

Grade	Numerical Value
A	4
B+	3.5
B	3
C+	2.5
C	2
D+	1.5
D	1
F	0
XF	0
UF	0
I	0

Numerical quality points are then determined by multiplying the above values by the number of credit hours which the course carries. For example, a three-credit hour course in which the student receives a B represents 9 quality points earned.

Academic average is determined by dividing the total number of quality points earned by the total number of credits taken, whether passed or failed. The following table is an illustration of this computation:

GRADE & QUALITY NUMERICAL POINTS			
Course	Credits	Value Per Course	
HIS 101	3	C (2)	6
PSY 101	3	B (3)	9
BIO 111	4	D (1)	4
FRE 101	3	A (4)	12
ENG 101	3	B+ (3.5)	10.5
CIS 101	3	F (0)	0
.	19		41.5

Total credits taken: 19
Total quality points earned 41.5
41.5 divided by 19 results in a 2.18 grade point average.

Grades received in the non-credit preparatory or developmental courses are not included in the computation of averages, but are considered in the calculation for assigning probation or dismissal by the Academic Evaluation Committee (AEC).

Grading Policy

The faculty has adopted a college-wide grading policy which requires each instructor to give students a written statement regarding his/her grading policy at the beginning of each academic term. Students who have failed to receive such information prior to the end of the second week of classes should approach the instructor with a special request for a statement outlining the grading policy to be followed.



Graduation Requirements

It is the responsibility of students to meet with a counselor/advisor to make sure they have taken all courses required in their program, and that they sufficient credits each semester to meet the requirements for graduation. Students are "strongly encouraged" to meet with an Academic Counselor/Advisor to review their program requirements prior to completing a graduation application. The student must submit the application for graduation by the deadline date and pay a non-refundable graduation fee.

Students enrolled in Cooperative Programs with JFK Muhlenberg Schools, Trinitas or UMDNJ must consult with the program advisor.

Degrees and certificates will be officially issued following the conclusion of the Summer Sessions (October), the Fall Semester (January) and the Spring Semester (May). Deadlines for submission are:

February 1	May graduate
June 1	August 31 graduate
November 1	January graduate

All degree or certificate recipients are eligible to participate in commencement exercises for the academic year. There is one commencement held in May. October (from previous year) and January graduates (of the same year) are invited to participate in the annual May commencement ceremony.

Students leaving the College before they complete their program who intend to transfer back credits from another institution must make sure that they have secured written approval from the Admissions office to transfer courses back to Union County College.

Until the Registrar's Office has cleared the student for graduation, no degree or certificate information will be entered on the students transcript or issued. Degrees or certificates issued will carry the graduation date closest to the date of final clearance.

Registration

Registration, the process by which an admitted student enrolls and completes payment for their tuition and fees, must be done each semester/session. There is an additional charge for late registration. The registered student receives or may acquire a class schedule and a paid receipt which will verify enrollment in the requested classes.

Freshmen and current students who enroll have access to a member of the counseling staff or advisor to assist in the scheduling and completion of the registration form. The counselor/advisor will provide the student with the approved requirements of their program/major and assist students in the choice of electives.

The process is followed each term thereafter, students submit their registrations for the next semester in accordance with Union County College registration instructions. On-line registration is available to most students and we recommend students take advantage of the on-line e-services. It is the student's responsibility to be aware of the registration, drop/add, withdrawal refund policy dates and have knowledge of graduation requirements of his or her program, to select the correct courses, to accumulate the required number of credits, and to avoid duplication of subjects. A full-time student may carry a minimum of 12 credit hours. Students requesting registration for over 18 credit hours must have at least a 3.00 cumulative GPA and may receive permission from the counseling/ registration office. Such permission will not be given unless the student's overall Grade Point Average (GPA) indicates that the student is capable of carrying the additional load.

A current student who wishes to change his/her curriculum must complete a curriculum change form with a counselor/advisor and meet all requirements. New students wanting to matriculate (declare a major), not done at time of application submission must complete a matriculation form available in the Admissions Office on any campus.

Students who, after having registered, decide not to attend before the beginning of the ensuing semester or within the official drop/add withdrawal dates or may do so on through web services; or meet with a counselor/advisor to complete a drop/add form, or submit a written request to drop, all forms must be submitted to the Registrar's office to be officially processed. Students dropping all courses, with no intentions of returning the following semester, must return any items that belong to the college (such as a current Union County College identification card), to the Registration Office. Tuition refunds will be processed through the Student Accounts Office.

JFK Muhlenberg Schools' students must consult with their School's Advisor for registration and schedule changes. Registration, drop/add, and withdrawals for all courses must take place through the JFK Muhlenberg Schools registration office. Trinitas School of Nursing students not enrolled in nursing courses must consult with a Union County College counselor/advisor. Trinitas students enrolled in nursing courses will meet with a Trinitas advisor for drop/adds, withdrawals or future nursing course registration. Union County College/University of Medicine and Dentistry of New Jersey students must meet with an admissions officer or counselor/advisor to discuss pre-requisite courses required for the program. Acceptance is based on approval by the UMDNJ admission committee.

Students who have not settled financial obligations incurred at the College will be prohibited from registering or receiving transcripts or final grades until outstanding debts are paid. There may be a fee incurred for switching sections.

The college reserves the right to cancel any course where there is insufficient enrollment. Visit our website www.ucc.edu.

Schedule Changes

Limitations on section size make it impossible for every student to arrange a schedule which will meet his/her personal convenience in every instance. The student's academic obligations must take precedence over his/her personal commitments, including employment. Students may drop/add a scheduled class(es) within the published registration dates posted on web services.

Students who are in the Educational Opportunity Fund Program (EOF), Health Technology, JFK Muhlenberg Schools, Trinitas Nursing Courses and University of Medicine and Dentistry of New Jersey will meet with and do all registrations through the program counselor/advisor.

Union County College Transcripts

Requests for Union County College transcripts of record must be made in writing to the Registrar's Office, Cranford Campus. Upon receipt of the paid request from the Student Accounts Office, processing time may take 3 to 5 business days. Dates of attendance, social security number/student ID number, and present address must be included in the request. A fee is charged for each requested transcript. Students are not entitled to transcripts unless all financial obligations to the College have been met. Electronic transcripts are received and transmitted when available. Current students may print an unofficial copy of their transcript; visit www.ucc.edu and click on web services.

Withdrawal from College

Withdrawal from all courses in which a student is enrolled in a given semester/session constitutes a Withdrawal from College. Withdrawal from College during the first seven weeks of a Semester or within the Official Withdrawal Date set in the College Calendar for semester/session requires that the student submit an official request for withdrawal through a drop/add withdrawal form.

Students are recommended to consult with a counselor/advisor; however, withdrawal requests can be made in writing via mail, or by fax to the Registrar's Office with a brief statement including the reason for withdrawal, student ID number and the signature of the registered student. Unless this request has been completed by the student and submitted by the appropriate withdrawal dates, the withdrawal is considered "unapproved" and will result in a final grade of "F" or "UF" in all classes.

Withdrawal from College after the Official Withdrawal Date requires that the student seek a withdrawal from each course with the permission of his/her instructors. See the next section.

Refund and withdrawal eligibility will be based upon the date on the drop/add or withdrawal letter or fax date received. Correspondence should be addressed to the Registrar's Office, Cranford Campus. A student who withdraws from all classes within the required withdrawal dates, providing there is no violation of academic integrity, will have that withdrawal recorded as a "W" as long as all appropriate forms have been filed.

Withdrawal from Course(s)

OFFICIAL WITHDRAWAL PERIOD.

The official withdrawal period extends from the end of the add drop period until the seventh week of the semester. Students may withdraw from a course(s) at any time during the official withdrawal dates posted for the semester/session. Students who wish to drop a course(s) must fill out a Drop and/or Add Courses Form and submit it to the Registrar's office.

Please note that some courses do not run for the traditional 15 week semester and an equivalent withdrawal date is calculated and published each term. Official withdrawal can only be accomplished within the dates listed for that semester/session. These dates are identified in the College Calendar, which is available at the College Website in the Owl's Nest.

WITHDRAWAL AFTER THE OFFICIAL WITHDRAWAL PERIOD.

The late withdrawal period extends from the end of the official withdrawal period to the day prior to the first date of the official examination period. Students may request a late withdrawal from the instructor who may approve the request at his or her discretion for the late withdrawal. A late withdrawal form verifying the extraordinary circumstances upon which the appeal is based should be given to the instructor who will submit the late withdrawal form to the Registrar's Office. Students requesting a late withdrawal from a lab science course must get the approval and signature of both professors. Late withdrawal forms will only be accepted by the Registrar's Office prior to the first day of the official final examination period.

The late withdrawal form may be obtained from the Academic Departments, Admissions Office, or Counseling Services. All appeals and supporting documentation, if any, are treated confidentially.

IMPLICATIONS OF WITHDRAWAL

Students who withdraw will have a withdrawal "W" grade recorded on their transcript. The "W" grade does not impact the student's Grade Point Average (GPA) but it does count as having taken the course. Students may not repeat a course more than once without written approval from the department chairperson or coordinator.

Students should talk to their instructor and a counselor before they consider withdrawing. Withdrawal may change a student's status from full-time to part-time. Students participating in the Educational Opportunity Fund (EOF) must contact the EOF Office prior to submitting a request for withdrawal form. Also, students receiving Student Financial Aid funding must contact the Student Financial Aid Office prior to withdrawing from one or more courses

Developmental mathematics or developmental English courses require the approval of the appropriate program coordinator if the student remains enrolled in other non-developmental courses.

An Incomplete "I" grade cannot be changed to a "W" grade.

Withdrawal: Medical

A student who must totally withdraw from the College must submit an official Withdrawal form due to a serious illness. The illness must be attested to by a physician in written form. The request must be submitted to the Registrar's Office no later than the last official day of the term during which the illness.



Support & Special Services for Student Life

Libraries

The Union County College Libraries serve as the major learning resource of the College. Information Literacy is the major goal of the Library. All Library services are designed to help students develop the ability to locate, evaluate, and use information sources creating greater success in the classroom and empowering life-long learners.

Library holdings total more than 130,000 volumes, over 300 periodical subscriptions, and over 3,000 videos and DVDs. In addition, the Libraries subscription databases provide access to nearly 30,000 full-text journals, newspapers and reference sources via the Library's web site. Nearly every database can be accessed remotely. The Library's web site also includes virtual tours, instruction modules, library hours and policies, research guides and selected subject resources. All these resources can be accessed on campus or remotely.

The Kenneth Campbell MacKay Library on the Cranford Campus contains the major reference and research collections of the college. The libraries on the Elizabeth and Plainfield Campuses serve as the learning resource centers on those campuses with collections and services geared toward the specific programs offered at those campuses. Professional librarians are available for research assistance and information literacy instruction at all three campus libraries.

The MacKay Library is a four-story 50,000 sq. ft. facility. The building also houses the Tomasulo Art Gallery, the Cranford campus Academic Learning Center, and the Center for Visual Arts and Communications, which includes a Television Studio, Radio Station, Photography Laboratory and Studio, Graphic Arts Laboratory, Painting and Drawing Studio, classrooms and faculty offices. The third floor has 13 classrooms, an architecture laboratory along with meeting rooms. The MacKay Library has a 107 computer Information Commons and a 28 computer hands-on library instruction lab for information literacy instruction. In addition, the Library provides eight group study rooms, an archive of faculty publications and the Ely Stock Memorial Children's collection. The Library also has comfortable seating and study tables for student use.

The Kellogg Library is located on the ground floor of the Kellogg building on the Elizabeth campus. The Kellogg library has a 45 computer Information Commons, a 28 computer hands-on library instruction room, quiet study rooms and a periodical room. The Kellogg collection focused on the needs of ESL and Nursing students.

The Plainfield Campus Library is located on the lower level of the three-story building on that campus. The Plainfield collection focuses on ASL & Deaf Studies, ASL-English Interpreting, EMT, Paramedic, Physical Therapist Assistant and Practical Nursing.

The Libraries on all campuses are connected through an online catalog and circulation system that indicates location and availability. Students have access to the total holdings of the College Libraries. Materials can be borrowed from or returned to any campus by intercampus delivery on one-day notice. Interlibrary loan service is available for materials not owned by the Libraries. All libraries have complete wireless access. MacKay Library has a laptop lending program for students for in-library use only. Both MacKay and Plainfield libraries now lend iPads for in-library use.

All campus librarians provide Library Instruction which is carefully geared to specific course assignments. Instruction is designed to provide an overview of information resources and allows students the opportunity to work with a librarian to develop their research skills to achieve maximum academic success.

For more information see the
Union County College Libraries Web Site:

<http://www.ucc.edu/about/library>

Academic Learning Centers

The Academic Learning Centers (ALCs) offer academic support by providing tutoring to all students registered for transfer and institutional credit-bearing courses at Union County College. Through the use of peer, paraprofessional, professional and faculty tutors, subject specific help is available in most courses taught at the college, with special emphasis on high-risk courses, developmental mathematics and English, as well as English as a Second Language. Support is offered on a walk-in basis with no appointment necessary. Students are encouraged to access tutorial assistance at any time. Union County College is committed to supporting academic excellence and optimal achievements. The services of the Academic Learning Centers are there for students, even if only to ask questions or verify answers. Tutoring is provided for selected online courses through synchronous live chat and asynchronous environments.

The Academic Learning Centers' computer labs contain state-of-the-art computers and software and are staffed to assist students. The ALCs offer many additional resources including biology slides, microscopes, bones and models, as well as study materials, solutions manuals and answer books. Help sheets, developed by the staff of the Academic Learning Centers, are available both at the ALCs and online. They address frequently asked questions and clarify concepts in a variety of disciplines. Additionally, web-based interactive exercises created by ALC professional staff and approved by faculty are available on the ALCs' website to practice both English and mathematics.

The Academic Learning Centers are located on the Cranford campus on the first floor of the MacKay Library, on the Elizabeth campus on the third floor of the Lessner Building, and on the Plainfield campus on the lower level within the library. Check with any of the ALCs for hours of operation and tutoring schedules, or visit the ALC website for additional information at <http://www.ucc.edu/about/ALC>.

Computing Resources

The Department of Information Technologies (IT) provides reliable access to many resources throughout the College for both academic support and administrative office applications. A high-speed fiber optic backbone interconnects the Cranford, Elizabeth, and Plainfield campuses. This connectivity ensures a high level of availability of technology resources throughout the College.

The computer center, located at the Cranford Campus, is equipped with high-speed server technology to support the needs of students, faculty, and staff members. Microsoft Windows Server has been chosen as the primary server operating system due to its dominance in the academic and administrative application software industry.

Windows 7 is available at the desktop in all 70 computing labs, offices, libraries, and Academic Learning Centers. These labs are all supplied with Internet connectivity through the College's Wide Area Network (WAN) infrastructure, and links with the New Jersey Higher Education Network (NJEDge). Specialty applications include multimedia and Web development, Computer Aided Drafting/Computer Aided Manufacturing (CAD/CAM), computer game design, and desktop publishing using industry standard tools.

Library applications include Web-based databases such as *New York Times* and *Business and Health Reference*. The Library electronic card catalog is available from any computer with internet access.

Each student is provided with a college network e-mail account. This allows the student to communicate with others, including his/her instructor, electronically. Each network account comes with secure network disk space that is accessible from any networked PC throughout the College. Access to over 150 course-related applications, as well as networked laser printers throughout the College, enable the student to use technology as an effective tool in his/her program of study.

Utilizing an electronic system of problem tracking and resolution, the IT Department's professional Help Desk staff provides knowledgeable and timely assistance. The IT Department's Faculty/Staff Computer Resource Center is a technology workplace for faculty and staff. This Resource Center stays abreast of current and new technologies. Training sessions developed specifically for faculty/staff computer needs are offered throughout the year.

Union County College is currently among the leaders in the state in web-based course offerings. Web-based Student Web Services are available for online course registration and credit card payment. The College is active in both the New Jersey Virtual Community College Consortium (NJVCCC) and the New Jersey Virtual University.

Counseling Services

"Teaching to Foster Informed Decision Making"

Our services strive to increase student success by both providing quality and timely resources to a diverse student body, and by linking their educational goals and objectives into their developmental growth process through the use of curricular and co-curricular activities.

Our Vision and Mission:

VISION: Counseling Services is recognized as integral to student learning and development.

MISSION: To teach students to become life-long independent learners by acquiring the essential skills and knowledge necessary to achieve educational, career and personal success.

Counseling Services employs various counselors who are available to assist students with needs in five primary areas: academic advising and academic counseling, career services, disability accommodations, short-term personal counseling and referral and transfer services.

Academic Counseling

Academic Counseling is a complete academic advising and career planning process in which students are taught decision making skills to help them succeed academically. At times, it may involve students using several of the below services at the same time; however, most often, students will use them individually as they need them. Students taking advantage of this service can receive help with:

- Academic Planning
- Choosing a Major
- Course Selection
- Curriculum Information
- Degree Audit (Online academic planning & course selection tool)
- Web Services (Registering Online)
- Faculty Office Hour Information
- Monitoring their Academic Progress
- New Student Orientation
- Specialized Athletic Advising
- Specialized Allied Health & LPN Advising
- Specialized Career & Technical Program Advising

Career/Employment Counseling

Career Services is the area where students can find guidance with choosing future careers or seeking employment while they are completing their studies. Here, students can take advantage of:

- Career and Employment Workshops
- Career Interest and Personality Testing
- Career Fairs
- Career Resources
- Employment Placement Services
- Employment Statistics
- Internship Opportunities
- Leadership and Service Opportunities

Disability Services

The Office of Disability Services provides equal access for students who self-identify their documented disabilities to the college's academic programs, activities, and awards without discrimination on the basis of a disabling condition. Programs and methods of teaching, evaluation, and service delivery are adapted to meet the individualized needs of each student. Here, documented students can find help with:

- Adapted Classroom Activities
- Academic Advisement and Registration
- Alternative Testing
- Counseling
- Interpreters
- Parking Permits
- Referral to Community Resources
- State Regional Centers
- Testing
- Text Titles

Personal Counseling

Counselors are available to assist students in dealing with the many stress factors associated with family, life and school demands. Students can find assistance with:

- Assessment
- Referrals
- Resource Information
- Self-Help Groups
- Short-term Counseling
- Stress Reduction
- Substance Abuse
- Various Workshops and Seminars

Transfer Services

Students interested in transferring to other colleges and universities can find guidance with:

- Assistance with Transferring
- Computerized Information
- On-site Admission/Instant Decision Days
- Scholarship Information Available to Transfer Students
- Transfer Fairs
- Transfer Resources
- Transfer Workshops

The Educational Opportunity Fund Program

The mission of the Educational Opportunity Fund Program (EOF) at Union County College is to provide students from disadvantaged communities, who demonstrate potential for academic success, an opportunity to attend college. The purpose is to successfully graduate and transfer students to four-year institutions, as well as provide students with a high level of preparation and readiness for the workforce.

Program Services Offered:

- Mandatory comprehensive summer orientation for first year students.
- Personal, academic and career counseling.
- Leadership/ Mentoring opportunities.
- Opportunity to join the Chi Alpha Epsilon National Honor Society.

How to Qualify: Prospective students must meet the following eligibility requirements.

- Are a New Jersey resident.
- Have received a high school diploma, GED or demonstrate the ability to benefit.
- Be able to show potential for completing a college program.
- Be eligible for financial assistance as determined by the NJEOF income guidelines which may be found at http://www.state.nj.us/higher_education/eligible.htm

How to Apply: The application process requires students to

- Complete a Union County College Admission application.
- Send your high school transcript or GED scores to the EOF office.
- File a Free application for Federal Student Aid (FAFSA). Students may file online at: <http://www.fafsa.ed.gov>. Indicate Union County College code 002643.
- Fill out an EOF application. Applications can be obtained from the EOF office or online.
- Take the College Placement Test.
- Schedule an interview with an EOF counselor.

**To learn more, contact
The Educational Opportunity Fund Program
908-709-7088**

Fitness Center

The Fitness Center is located on the second floor of the Campus Center. Students may use the Fitness Center after presenting a photo I.D. and a current class schedule. Hours are Monday through Friday, 8:30 am - 10:00 pm, and Saturday, 9:00 am - 7:00 pm. Students may also qualify for access to the YMCA in Elizabeth and the YWCA in Plainfield. Students should contact the Office of College Life for more details.

Identification Card

Students are responsible for securing and maintaining in their possession while on campus a current validated Union County College identification card. The identification card must be presented as authorization for campus presence when requested by College officials. The identification card also serves as the student activity card and the College's library card. Identification Card photos can be taken in the Office of College Life, located in C104 at the Cranford Campus. Photo I.D.'s can also be taken at the Plainfield and Elizabeth Campuses. Hours vary on each campus.

Intercollegiate Athletics

The College's athletic program offers men's soccer, men's basketball and baseball, women's basketball, women's volleyball, women's softball, women's soccer, and co-ed golf. The College is a member of the competitive Garden State Athletic Conference (GSAC) and Region XIX of the National Junior College Athletic Association (NJCAA). Participation is based on academic standing and athletic ability. The Office of the Dean of Student Life is located in the Campus Center Building, Cranford campus. Union County College's intercollegiate athletic colors are red, white and black. The College mascot is the owl. Admission to home contests is free.

Public Safety

The Public Safety Department has the following responsibilities:

1. Protect the lives and safety of all individuals within the College property.
2. Safeguard College and personal property from theft, damage, vandalism, or misuse.
3. Prevent and control crime on campus.
4. Investigate crime on campus, apprehending offenders when possible and recovering stolen property.
5. Preserve peace and resolve conflicts on campus.
6. Provide an immediate response to emergencies and to all persons requiring aid on campus.
7. Enforce College policies, rules, and procedures.
8. Advance cooperative relationships within the College community and contribute to its public relations program.

Illness or injuries due to accidents, which are incurred on-campus, or during a College-connected activity are to be reported immediately to the Public Safety Office on the campus where they occur. If it is not possible to make an immediate report, one should be made before 48 hours have elapsed. All students are covered under the College's student accident insurance plan.

Safety on Campus

All students are urged not to linger in lightly-traveled areas of the buildings or campus grounds after regular closing hours. If you must complete assignments in remote areas where the campus is in minimum use, you should exercise the following safety precautions: (1) find at least one other person whom you know well to work with - group work would be even wiser; (2) leave the area in pairs or as a group; (3) alert Public Safety in advance that you will be using the area and ask Public Safety to spot-check during your work period and escort you to your car if necessary; (4) leave the building by a common exit that may be closest to the area where you parked your car; (5) if you are waiting for a ride after dark, agree upon a well-lighted pick-up spot; and (6) if you are subjected to harassment or observe someone behaving in a suspicious manner that may jeopardize your safety, report the situation immediately to a Public Safety Officer or your instructor.

These are a few simple rules that may prevent the occurrence of an unfortunate situation. Most importantly, you should make yourself familiar with the campus buildings, exits, and general location of the Public Safety force. Please be reminded that you should carry your identification card with you at all times. Union County College is an "open" campus. Stay alert and exercise prudence to insure your personal safety at all times. Should any student, faculty/staff member, or any visitor on the campus become the victim of any crime, report the incident to the Public Safety Department immediately.

The following crimes which are reported to the Public Safety Department will immediately be reported to the local Police so that they can conduct the investigation: Murder, Rape, Robbery, Aggravated Assault, Burglary, Motor Vehicle Theft, Liquor Law Violations, Drug Abuse Violations, Weapons Possession. **CAMPUS CRIME STATISTICS WILL BE FURNISHED UPON REQUEST AND ARE DISTRIBUTED TO ALL APPLICANTS.** In compliance with the Federal Campus Sex Crimes Prevention Act, and relevant New Jersey Law, information regarding the enrollment or employment of convicted sex offenders is available from the Union County College Department of Public Safety. Additionally, in compliance with the Student Right to Know and Campus Security Act, crime statistics are reported to the U.S. Department of Education and are available online at <http://ope.ed.gov/security/>

Parking & Automobile Registration

Students currently enrolled who intend to use designated parking facilities at Union County College campuses must have their automobiles registered through the Public Safety Office. There is a charge for a parking hang-tag permit to be displayed by the registered vehicles. Automobiles parked on campus illegally or without proper, valid, hang-tags will be ticketed and/or towed at the owner's expense. Parking fines are assessed for parking and traffic violations. Speed zones on Campus are generally set at a maximum of 10 miles per hour. However, students are expected to exercise prudence at all times and heed all posted traffic signs. A complete listing of parking regulations and map of student parking areas can be found in the Student Handbook and the Public Safety Guide.

College Life

The office of College Life, in partnership with the Student Government Association (SGA), develops a co-curricular program that offers a wide range of diverse activities on all Union County College campuses. These include entertainment programs, educational trips, international cultural festivals, lectures, films, and musical programs. The Student Government Association offers a variety of clubs and organizations at Union County College. These clubs and organizations include the student newspaper (The Scroll), the radio station (UCR), the literary journal (SHEAF), a literary magazine (The Foreign Student Voice), and academic, cultural, and social clubs organized by students based on their interests. All students are invited to participate in the programs offered on the Cranford, Elizabeth, and Plainfield campuses of Union County College. A valid Union County College identification card may be necessary for access.

The Office of the Dean of College Life is located in the Campus Center Building on the Cranford campus. SGA Advisors are located on the Elizabeth and Plainfield campuses. If you or someone attending a program or an event with you requires special services, please contact (908) 709-7164 for Cranford campus events, (908) 412-3573 for Plainfield campus events, or (908) 965-6033 for Elizabeth campus events at least two weeks prior to the activity in which participation is desired.

Student Services

The mission of the Division of Student Services is to provide programs and services to foster a student's personal and social development and to provide services that support a student's transitions to college, success in college, and into a career. The Division of Student Services includes student recruitment, student activities, athletics, student government, The Educational Opportunity Fund, student financial aid, counseling, services for students with disabilities, transfer services, career services, academic assessment, academic advisement, admissions, records, registration, and the Center for Student Success.

Student services staff and a wide range of services are offered on the Cranford, Elizabeth and Plainfield campuses. Services begin prior to enrollment with admissions, recruitment, EOF and financial aid services. Services continue through the enrollment process with academic assessment, academic advisement, and registration.

Placement tests are administered to identify the level of skill performance in English and mathematics in order that appropriate initial course assignments can be made. Counseling, student activities, student government, athletics, the Center for Student Success, and the EOF promote student development throughout enrollment. Career services, transfer services, EOF, and student records assist students in their transitions after completion of Union County College programs of study.

A vital part of student life is embodied in the college life programs open to both full and part-time students at all campuses.

Opportunities for participation include recreational, club, intramural, cultural, social and intercollegiate athletic activities. Students are encouraged to familiarize themselves with the services and activities offered by the College. *The Student Handbook*, the Union County College website and other special publications should be consulted for more detailed information on activities and on policies and procedures for which students will be held accountable while enrolled at Union County College.

Supporting Organizations

Union County College Foundation

The Union County College Foundation was founded in 1977 to raise funds to benefit Union County College students and to support innovative programs. The Foundation provides scholarships, and underwrites lecture series, graduation awards, faculty and staff development, and special College programs.

The Foundation, a non-profit organization, raises funds through special events and contributions from alumni, board members, employees, parents, foundation, business, industry, and friends. Very special friends who demonstrate their commitment by including the Foundation in their wills or estate plans are recognized in perpetuity as members of the Union County College Heritage Society.

An elected Board of Trustees manages the Foundation and its endowment. For more information about the Foundation, call (908) 709-7505 or visit the Foundation website at www.uccfoundation.org. The Foundation's Annual Report is available upon request.

Union County College Alumni Association

The purpose of the Union County College Alumni Association, a non-profit organization, is to assist in advancing the mission of Union County College, to maintain a continuing relationship between alumni and the College and to strengthen the relationship between the College and the community. The Association hosts social, cultural and educational events and supports Union County College Foundation programs. Any graduate or student with 30 credits or more is eligible to join; dues is \$15 for 3 years, a lifetime membership is \$125.00. Members can borrow materials from all College libraries. Benefits include a discount in the College bookstores and, for a three-year membership, a special alumni rate at the Union County College Fitness Center. Meetings are held September through June.

For more information, call (908) 709-7505 or visit the Foundation House at 995 Springfield Ave., Cranford. For the calendar of events and more information, visit www.uccfoundation.org.



Additional Opportunities

ACADEMIC POLICIES

Air Force/Army ROTC

Union County College, Rutgers – The State University, and Seton Hall University have an agreement permitting male and female students of Union County College to cross-enroll in the Air Force ROTC program. Qualified students may complete the first two years of the four-year program on a cross-enrollment basis and the final two years by attending an institution sponsoring Air Force ROTC. Students who successfully complete the four-year program earn commissions as second lieutenants. For further information, contact the Admissions Office of Rutgers - The State University or Seton Hall University.

Continuing and Professional Education

Continuing Education

The Department provides professional development and personal enrichment opportunities for individuals who live or work in Union County and beyond. Special programs are available in the Department for youth and senior citizens. These include youth programs, College for Teens, and the Union County Freeholders' Senior Scholars program. A Continuing Education brochure is mailed to every Union County household and contains course offerings each semester.

Committed to the concept of lifelong learning, the Department schedules these non-credit courses in the evenings, on weekends, and during daytime hours that are convenient for adults. Programs are offered at all four campuses and at various extension center locations. In addition, the Division offers courses online via the Internet. Currently, among the Continuing Education Department offerings are non-credit certificate programs in Cisco Networking CCNA/CCNP, Management, Microsoft Office Professional, Six Sigma, Print and Graphics, Real Estate Sales and Appraisal, American Sign Language, Pharmacy Certified Technician, Children's Care-Giver Program, Travel and Tourism, Substitute Teacher Specialist, Practical Accounting, Human Resource Management, Administrative Assistant, Restaurant Management/Culinary Arts, Floral Design, and Interior Design. Certificate programs are also available in Homeland Security Emergency Management and Planning, Hospitality/Hotel Management, Marketing, Microsoft Office Project, Certified Bookkeeper, U.S. Customs Broker Test Preparation, Personal Trainer National Certification, Web Design, Structured Query Language, Certified Phlebotomy Technician and Certified EKG Technician, and Management.

Youth programs are offered on Saturdays on a variety of topics such as standardized test preparation Pre-SAT, SAT, reading and math enhancement, creative and visual arts. In addition, these youth programs are offered in the summer months. College for Teens is a career-oriented program that provides academic enrichment, career exploration, and leadership training for teens funded by the Union County Freeholders. This is offered as an intensive program in the summer. Continuing Education operates as a Regional Cisco Networking Academy. It provides extensive preparation for the Certified Cisco Networking Associate (CCNA) and Certified Cisco Networking Professional (CCNP) designation(s). As a Regional Academy it provides technical and instructional support to local school systems that wish to offer CCNA preparation to their students. Continuing Education also offers the New Pathways to Teaching in New Jersey (NPTNJ) program in conjunction with the New Jersey City University. NPTNJ is an alternate route New Jersey teacher certification program. Students are able to obtain New Jersey teacher certification upon completion of the program. For further information, write or call the Continuing Education Department at Union County College, 1033 Springfield Avenue, Cranford, NJ 07016.

Industry-Business Institute

Union County College's Industry-Business Institute (IBI) works with Union County employers to build a skilled workforce. IBI provides workplace-specific, customized education and training programs to develop employees working in local businesses, non-profits, and government agencies.

Programs are designed for maximum effectiveness and to help organizations improve productivity, quality, cost effectiveness, and morale. Professional instructors with relevant industry experience deliver the programs. Training is delivered on-site and scheduled at times that will not interrupt production schedules. Companies fund this training with their own budgets, and also may receive funding through the New Jersey Department of Labor and Workforce Development Customized Training Grant Program. IBI provides companies with comprehensive assistance in securing and administering the State training grants. This service is offered at no cost to the company. IBI can provide virtually any type of workforce development program because of its wide network of industry professionals and faculty, which includes the entire New Jersey Community College system. IBI provides customized training programs in the following areas:

- Computer Skills
- Management and Supervision Skills
- Communication and Personal Effectiveness Skills
- Industrial Maintenance and Manufacturing Skills
- Workplace Literacy/Basic Skills
- Quality Practices
- Safety Procedures

For more information, please contact Union County College, Industry-Business Institute, 40 West Jersey Street, 5th Floor, Elizabeth, NJ 07202, 908-527-7207.

Center for Economic and Workforce Development

The Center for Economic and Workforce Development (CEWD) provides training and support services to help the unemployed and the underemployed to be better positioned in the workforce, and to develop lifelong learning skills.

The Center offers a wide variety of programs and courses to over 4000 adults each year. The Center model includes universal assessment, counseling, occupation-related instruction, and job placement. In keeping with the CEWD commitment to access for all, instruction is scheduled in the evenings, on weekends and during daytime hours that are convenient for adults. CEWD classes are headquartered on both the Elizabeth (Lessner Building) and Plainfield Campuses which are equipped with state-of-the-art computer labs and offer full service operations to all CEWD students. CEWD classes are also held at the Elizabeth Public Library, the Urban League of Union County, the Housing Authority of the City of Elizabeth and other community sites throughout the County.

CEWD offers the following programs:

- **Computer Basic:** This introduces students to basic computer operations and the Microsoft Office Package, thereby equipping them for career advancement and enhancement of educational opportunities. CEWD services approximately 1000 individuals each year in this low cost course.
- **Project ABLE Plus:** This WIA Title II program offers ESL, ESL Civics, literacy and GED preparation to eligible residents and is funded through the State of New Jersey's Department of Labor.
- **Project Achievement:** This is an intensive ESL/Computer Course for WFNJ TANF (Work First New Jersey Temporary Assistance for Needy Families) participants which uses traditional on-ground classroom instruction and distance learning activities that improve the English computer proficiencies of participants who may be at the lowest levels of English proficiency and technical skills.
- **GED Fast track and Testing:** The department offers courses to prepare test eligible residents for high-school equivalency. CEWD offers the only GED testing in the county.
- **Job Search Workshops:** Eligible CEWD students develop career goals, prepare resumes and develop job seeking and job maintenance skills through this four week WFNJ program.
- **To-Work /Community Work Experience Activities:** These activities provide eligible WFNJ participants the opportunity to develop skills that will enable them to find and maintain employment. Participants are placed at non-profit/community-based organization sites to practice and hone their employability skills.
- **Occupational Training:** CEWD provides 360 to 585 hour training in demand occupations that include Medical Billing and Coding, Computer Software Specialist/Secretarial Science, Medical Unit Clerk, Accounting Technician and ESL Office Skills to individuals eligible for WIA, TRA, DVR and WDP funding and to individuals who wish to pay out of pocket.

In conjunction with an experienced administrative and support staff, and qualified instructors, CEWD has a Student Service staff and an active Job Development team which schedules regular career days and comprehensive job fairs. As a one stop partner with the County of Union, CEWD regularly partners with County Social Services on activities geared to increasing productivity and employability for eligible residents of the County. For further information, contact the Center for Economic and Workforce Development 40 West Jersey Street (Lessner Building), Elizabeth NJ, 07202-2314, (908) 659-5114 (CEWD Recruitment Office).

English for Speakers of Other Languages

The Institute for Intensive English provides a full-time program of intensive instruction in English for speakers of other languages. The students' objective is to enhance their English language abilities in order to further their academic, career, and/or personal goals.

After placement testing, students enter one of six levels of instruction commensurate with their abilities. In Levels 1 through 4, students register for four integrated courses to improve listening, speaking, reading and writing and study skills. In levels 5 and 6, students are required to register for four courses: two core courses covering advanced structures, listening, conversation and study skills, and an academic reading course, and an academic writing course.

Students may enroll in an additional pronunciation or conversation elective. Upon completing each course, there is an exit test, to assess a student's proficiency. Levels 1 to 4 receive a grade of Pass/Fail, while Levels 5 and 6 receive a letter grade. Upon completion of Level 6, students take ENG 111-112, a two-semester sequence of college composition for ESL students (equivalent to ENG 101), with other courses.

While enrolled in ESL courses students can take some additional content area courses, depending on a student's level:

Levels 3 to 6: Mathematics courses;

Levels 3 and 4: Keyboarding – ADM101;

Levels 5 and 6: ESL Allied Health Learning Community with Anatomy and Physiology courses, BIO 005 and BIO 006 and Computer Information Systems – CIS 100.

Level 6 linked courses: Business 101 with ESL 083 - Advanced Reading in Business, or Psychology 101 with ESL 084 - Advanced Reading in Psychology

Other Level 6: Criminal Justice - CRJ 101, Hospitality Management – HSM 100, and Engineering courses – MET 109 or EGG 111.

Emergency Medical Services

Emergency Medical Services (EMS) consists of a team of medical professionals who provide emergency pre-hospital care and transportation of sick or injured individuals.

In New Jersey, there are two levels of training for EMS personnel. The first level is the Emergency Medical Technician. The EMT receives training in basic emergency care including: patient assessment, airway management, bandaging and splinting of injuries, management of medical emergencies, and emergency childbirth. EMT training has minimum hours set by the NJ Department of Health - OEM and combines classroom and online lectures with small-group skill stations to reinforce the program's content. There is also an additional minimum 20-hour clinical rotation with patient contacts that are scheduled at one of the local hospital Emergency Departments, as well as instruction given on Homeland Security and FEMA websites. This provides the EMT student with the ability to practice some of their critical thinking skills learned during their EMT class. New Jersey's EMT training program is based upon a national model titled the National Standard Curriculum. Professional level CPR is a prerequisite. CPR training can be taken through any local hospital, or Red Cross Chapter, or through the college. Upon successful completion of the EMT-B training program, the candidate must successfully complete a written certification exam offered through the NJ Office of EMS, in order to obtain EMT certification. The EMT certification is renewed every five years by completing a minimum number of hours in approved continuing educational programs. Students may continue their studies by enrolling in the Certificate of Achievement in Emergency Medical studies or our full certificate program creating a career ladder into other Allied Health and emergency programs. Please note that an online discussion board and lecture material section is required of all students so access to a computer is needed.

Honors Studies

Honors Studies offers high-achieving students who strive for academic excellence a unique opportunity to pursue creative and intellectually fulfilling course work that supplements their regular program of study. Honors courses emphasize critical thinking, reflection and analysis, independent research, and the development of interdisciplinary and cross-cultural approaches to the study of issues of interest and importance in the world today. Small classes, a student-centered learning environment, and close working relationships with honors faculty and fellow honors students create an honors experience that is at once more personal, self-directed and collaborative than a typical college course, while challenging students to meet high academic standards.

Students whose GPA is 3.2 or higher, who have completed at least 15 college credits (excluding developmental courses), and who have completed ENG 089 and ENG 099, if required, are eligible to enroll in Honors Studies courses.

Course Options include Honors Seminars, Honors Independent Studies (HRS 203 and 204) and Special Honors Projects (HRS 103 and 104) as well as Honors Sections of non-Honors Courses. Honors sections of non-honors courses meet the criteria of the latter while offering students all the advantages of Honors Studies courses.

Honors Studies courses

- provide advanced preparation for continued study at four-year colleges and universities;
- enhance students' transfer and scholarship opportunities by demonstrating how they have distinguished themselves from their peers;
- satisfy certain degree requirements;
- offer students who take their education seriously the opportunity to work closely with other bright, motivated students and some of the college's best professors in a dynamic and non-traditional class setting;
- encourage and reward individual initiative;
- are intellectually challenging and personally enriching.

For more information, visit the Honors Studies website:
<http://ucchonorstudies.com/>

Honor Societies

Chi Alpha Epsilon

The Psi Chapter of the Chi Alpha Epsilon Academic Honor Society is a national honor society for students in the Educational Opportunity Fund Program. EOF students who hold a 3.0 cumulative GPA for two consecutive full-time semesters are eligible to be members. Its purpose is to promote continued high academic standards, foster increased communication among its members, and honor the academic excellence of those students admitted to college via developmental program pathways.

Mu Alpha Theta

Students with an interest and ability in mathematics are recognized through admission to Mu Alpha Theta. Mu Alpha Theta is a national honor society which promotes scholarship in mathematics at two-year colleges. Requirements for admission are 3.5 average of any mathematics course at the MAT-145 or higher level and an overall 3.0 cumulative average, (Students are eligible after one semester).

Phi Theta Kappa

Students who achieve outstanding scholastic records and demonstrate qualities of good citizenship receive recognition through admission into Phi Theta Kappa. Phi Theta Kappa is the national honor fraternity which aims to promote scholarship, develop character, and cultivate fellowship among men and women students of two-year colleges. Iota Xi is the chapter of Phi Theta Kappa at Union County College. Full-time students who have earned 12-24 credits at Union County College with a cumulative average of 3.50 or have earned 24 or more credits at Union County College with a 3.40 average are eligible for admittance into Iota Xi Chapter.

Psi Beta

Psi Beta is a national honor society in psychology associated with the American Psychological Association. It was founded expressly for community and junior colleges. The purpose of Psi Beta is to promote, encourage, and recognize scholarship for students in psychology. The local chapter encourages member participation in workshops, seminars, conferences, and other educational experiences, as well as service to the community. Membership requirements are, at minimum, an overall average of 3.0 and at least one course in psychology with an overall grade of "B" or better in each psychology course.

Tau Alpha Pi

The Omicron Beta Chapter of the Tau Alpha Pi National Honor Society is a national honor society for students in the engineering and engineering technology programs. Students are eligible for membership if they are in the top four percent of their class.

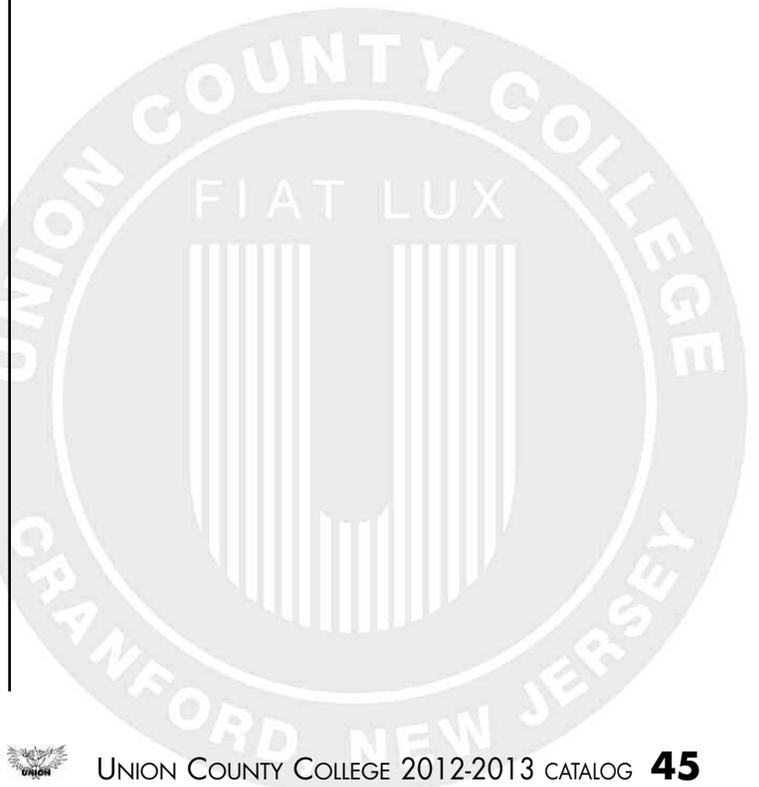
Lambda Epsilon Chi

Lambda Epsilon Chi is a nationally known academic honor society for paralegal students. Sponsored by the American Association for Paralegal Education (AAfPE), the society offers national scholarship opportunities, participation in regional, state and local conferences, and networking opportunities.

Candidates for membership in Lambda Epsilon Chi must be in good academic standing and have completed at least two-thirds of their paralegal coursework. Candidates also must have a cumulative GPA of 3.5 or higher.

NJ Marine Science Consortium

Union County College is a member of the New Jersey Marine Science Consortium, which affords students the opportunity to become acquainted with the marine environment through summer credit course offerings. The offerings supplement the science curricula at the College and increase the course options available for students. Students interested in Marine Science Consortium offerings should consult with the Registrar's Office.



Programs of Study



UNION COUNTY COLLEGE

offers two-year programs leading to the Associate in Arts, Associate in Science, and the Associate in Applied Science degrees, and programs leading to the Certificate and Certificate of Achievement. The course requirements for each program are outlined in this catalog.

All matriculated students, whether they plan to transfer to a four-year institution or complete their college careers at the end of their programs, are eligible for the Associate degree, the Certificate, or the Diploma if all graduation requirements set forth in this catalog have been met. The program outlines are offered as guidelines and courses do not necessarily need to be taken in the order suggested. Please note, however, that many courses require prerequisites or corequisites.

Academic Programs are subject to change. Students should contact the office of the vice president for academic affairs for the most current information.

THE ASSOCIATE IN ARTS

The Associate in Arts degree (A.A.) is an undergraduate academic degree awarded by Union County College upon completion of a course of study usually lasting 2-3 years full-time and 3 or more years part-time. It is equivalent to the first two years of a four-year college or university degree. This degree is intended for students who wish to go to Union County College, then transfer to a four-year college or university upon graduation.

The programs leading to the Associate in Arts degree parallel those offered in the freshman and sophomore years at four-year institutions. Students who satisfactorily complete their chosen programs will be able to continue their college education into their junior and senior years at four-year colleges or universities. The Associate in Arts degree is conferred upon completion of one of the following two-year programs:

- American Sign Language and Deaf Studies
- American Studies, option offered through Liberal Arts
- Audio Production
- Biology
- Business
- Chemistry
- Communications
- Criminal Justice
- Drama/Fine Arts, option offered through Liberal Arts

- Early Childhood Elementary Education, Suggested Grades Pre-K-3 option offered through Liberal Arts
- Education, Suggested Grades 4-12 option offered through Liberal Arts
- Film, option offered through Communications
- Graphic Design/Fine Arts, option offered through Liberal Arts
- Illustration/Fine Arts, option offered through Liberal Arts
- International Studies, option offered through Liberal Arts
- Journalism, option offered through Communications
- Liberal Arts
- Multimedia, option offered through Communications
- Music/Fine Arts, option offered through Liberal Arts
- Photography/Fine Arts, option offered through Liberal Arts
- Psychology, option offered through Liberal Arts
- Public Administration, option offered through Business
- Public Relations, option offered through Communications

 **Matriculated Means...?**
A matriculated student enrolls in the college to pursue study towards a specific degree. To be eligible for financial aid, students MUST be in a degree program, in other words, they must be matriculated. A non-matriculated student has not entered a degree program but is enrolled in courses.

- Radio, option offered through Communications
- Sociology, option offered through The Liberal Arts
- Television, option offered through Communications
- Visual Arts/Fine Arts, option offered through Liberal Arts

THE ASSOCIATE IN SCIENCE

The Associate in Science degree (A.S.) is awarded to students who are interested in earning an Associates degree at Union County College, then transferring to a four-year college or university. The area of concentration is usually in mathematics, natural sciences, or technology. This degree is intended for students who wish to transfer to a four-year college or to find a job upon graduation.

The Associate in Science degree is conferred upon the completion of the following programs:

- Architecture, option offered through Engineering Program
- Computer Information Systems & Technology
- Computer Science
- Computer Science/Engineering, option offered through The Professor Elmer Wolf Engineering Program
- Engineering, Professor Elmer Wolf Engineering Program
- Liberal Studies, exploring science & the arts
- Mathematics
- Nuclear Medicine
- Nursing, JFK Muhlenberg, Harold B. & Dorothy A. Snyder Schools
- Nursing, Trinitas School Of Nursing
- Psychosocial Rehabilitation and Treatment
- Radiography, Amplified Program In JFK Muhlenberg School Of Radiography
- Respiratory Care
- Social Services
- Sonography, Diagnostic Medical

THE ASSOCIATE IN APPLIED SCIENCE

The Associate in Applied Science degree (A.A.S.) is awarded to students who are interested in entering the work force upon graduation. These career oriented courses of study provide hands-on experience. The A.A.S. degree has fewer general education requirements and is therefore not intended for students who wish to transfer to a four-year college or university upon graduation.

The Associate in Applied Science degree is conferred upon the completion of the following programs:

- Accounting
- Administrative Support
- American Sign Language – English Interpreting
- Automotive Technology
- Business Management
- Business Marketing
- Computer Science
- Construction Engineering Technology
- Dental Hygiene
- Electronics/Electromechanical/ Engineering Technology
- Fire Science Technology
- Game Design Creation
- Game Design Development
- Help Desk, Technology Support Specialist
- Hotel, Tourism and Restaurant Management
- Mechanical Engineering Technology
- Paralegal Studies
- Paramedic, Emergency Health Science
- Physical Therapist Assistant
- Sport Management
- Technical Studies

THE CERTIFICATE

The Certificate course of study consists of 30-36 credits including 6 credits of General Education courses. Certificate programs are intended for students who wish to enter the workforce in a shorter time than a traditional degree program takes to finish.

The Certificate is conferred upon completion of the following programs:

- American Sign Language & Deaf Studies
- American Sign Language – English Interpreting

- Audio Production
- Criminal Justice
- Dental Assisting
- Educational Interpreter Program
- Interpreting Spoken Language
- Office Professional
- Paramedic
- Practical Nursing

CERTIFICATE OF ACHIEVEMENT

The Certificate of Achievement is for students who want to enhance their career options and enter the workforce at a faster pace.

- Homeland Security
- Paralegal Studies

COURSE SUBSTITUTIONS & WAIVERS

While the course requirements specified in the following curriculum descriptions are normally required, students may request to waive or substitute courses which are available infrequently. Students wishing to do so should see the appropriate program coordinator, department chairperson, provost or vice president for academic affairs.

Course waivers will be given at the discretion of the involved department chairs. It is strongly recommended that students obtain course waivers before registering for the substitute course.

ALPHABETICAL PROGRAM LIST

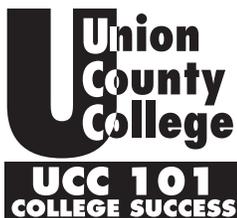
Accounting	50
Administrative Support	51
American Sign Language & Deaf Studies	52
American Sign Language – English Interpreting	54
American Studies	57
Architecture	58
Audio Production	59
Automotive Technology	61
Biology	62
Business	63
Business Management	64
Business Marketing	65
Chemistry	66
Communications	67
Computer Information Systems & Technology	68
Computer Science	69
Computer Science/Engineering	70
Construction Engineering Technology	71

Criminal Justice	72
Dental Assisting	74
Dental Hygiene	76
Drama/Fine Arts	78
Early Childhood Elementary Education	79
Education	80
Educational Interpreter Program	81
Electronics/Electromechanical/ Engineering Technology	83
Engineering	84
Film	85
Fire Science Technology	86
Game Design Creation	87
Game Design Development	88
Graphic Design/Fine Arts	89
Help Desk	90
Homeland Security	91
Hotel, Tourism & Restaurant Management	92
Illustration/Fine Arts	93
International Studies	94
Interpreting Spoken Language	95
Journalism	96
Liberal Arts	97
Liberal Studies	98
Mathematics	99
Mechanical Engineering Technology	100
Multimedia	101
Music/Fine Arts	102
Nuclear Medicine	104
Nursing, JFK Muhlenberg School of	108
Nursing, Trinitas School of	110
Office Professional	112
Paralegal Studies	113
Paramedic	115
Photography/Fine Arts	117
Physical Therapist Assistant	118
Practical Nursing	119
Psychology	120
Psychosocial Rehabilitation & Treatment	121
Public Administration	122
Public Relations	123
Radio	125
Radiography, Amplified Program in	126
Respiratory Care	128
Social Services	129
Sociology	130
Sonography, Diagnostic Medical	132
Sport Management	134
Technical Studies	135
Television	136
Visual Arts/Fine Arts	137

GETTING STARTED



As a new student at Union County College, there will be many opportunities to develop your personal strengths and skills in order to have a successful academic career. The course, **UCC 101: College Success**, must be taken by all first-time, full-time students, as it prepares students for the challenges and new experiences that will be faced in college.



UCC 101 should transfer to other colleges either as a first year seminar course or an elective.

Although it may not be a required course in your major, it is considered a prerequisite course for almost all programs of study and will serve you as a starting point for all your academic pursuits.

In addition, there may be other prerequisite courses that are required by your academic program or by the College, such as Developmental Reading, Mathematics, or writing classes.



Some students will also be expected to complete ESL courses through the Institute for Intensive English. If so, it may take more than two years to complete your degree at Union County College – but do not be discouraged. Most degrees take more than two years to complete due to various contributing factors, such as financial need, employment status, and prerequisites.

On the following pages are the curricula for every major and program offered at Union County College. These programs are set up by years and semesters: however, they do not include prerequisites, part-time attendance, or other factors. So, a “two-year” curriculum might look something like the one on the right, including other features of a typical student’s career at Union County College. However, your course requirements, especially any prerequisites, will probably be different and will depend on your placement exam results.



In the example shown here, the student will probably be taking courses at Union County College for at least five semesters, which could be as long as three years. However, there are opportunities to complete courses and prerequisites over the summer and during the January winter session, so it is very possible to complete most degrees at Union County College quickly and successfully. It’s all up to you: how well you can manage the challenges of college, adapt to the expectations of college-level study and time management, and how committed you are to creating your own success.

NOTE: UCC 101 is required for all first-time, full-time students; however, certain students may be eligible for an exemption. The list of exemptions appears on page 141 of this catalog.

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
PREREQUISITE SEMESTERS				
FALL SEMESTER				
UCC 101	College Success	2		2
ENG 089	Introduction to College Reading II	3	1	3
ENG 098	Introduction to College Writing I	3	1	3
MAT 011	Pre-Algebra	3	1	4
				12

PREREQUISITE SEMESTERS

SPRING SEMESTER				
MAT 022	Introduction to Algebra	3	1	4
ENG 099	Introduction to College Writing II	3	1	3
ACC 103	Accounting I	4		3
				10

PROGRAM CREDITS

FALL CREDIT SEMESTER

BUS 105	Organization & Management	3		3
CIS 100*	Intro to Computer Applications II	2	2	3
ENG 101	English Comp I	3	1	3
MAT 119	Algebra	4		4
				13

SPRING CREDIT SEMESTER

ACC 104	Accounting II	4		4
ECO 201	Principles of Economics I	3		3
ENG 122	Introductory Technical3 & Business Writing			3
MAT 127	Elementary Statistics	4		4
				14

FALL CREDIT SEMESTER

ACC 203	Intermediate Accounting I	4		4
ACC 211	Federal Taxes I	4		4
BUS 201	Business Law I	3		3
ACC 210	Microcomputers in Accounting	2	2	3
ENG 206	British Literature II	3		3
				17

SPRING CREDIT SEMESTER

ACC 204	Intermediate Accounting II	4		4
ACC 205	Cost Accounting	4		4
ACC 212	Federal Taxes II	2	1	2
ACC 290	Co-op Ed Experience			3
BUS 202	Business Law II	3		3
				16

ACCOUNTING

ASSOCIATE IN APPLIED SCIENCE DEGREE

Graduates of this Associate in Applied Science degree program are prepared for employment as junior accountants with large corporations. The program provides some of the needed academic background for a C.P.A.

Graduates may seek employment in industrial or general accounting or work in areas such as credit, collections (internal), governmental accounting, or payroll supervision. The program may be a "stepping stone" to law or employment with the Treasury Department or the Justice Department. Transfer of credits to a four-year college is conditional upon the receiving college or university. You should consult with the Program Coordinator prior to submitting applications.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school backgrounds (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively in writing, verbal and electronic formats.
- Describe the underlying theoretical and ethical framework of accounting concepts in a variety of settings.
- Prepare, utilizing critical thinking skills and appropriate software and accounting principles, a set of complete financial books and supportive records .
- Describe the managerial application of accounting data and its intended impact.
- Describe the governing principles of the practice of accounting .
- Analyze and discuss the effect of globalization, personal, and cultural development on the practice of accounting.

AFTER UNION COUNTY COLLEGE

This is a career program. Graduates work as junior staff accountants, bookkeepers, loan service representatives, tax preparation assistants, credit and collection associates, and junior financial analysts. While this program is designed for students who expect to work in the profession immediately after graduation, many students elect to continue their studies at a four-year college or university.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ACC 103	Accounting I	4		4
BUS 105	Organization & Management	3		3
CIS 100*	Intro to Computer Applications	2	2	3
ENG 101	English Comp I	3	1	3
MAT 119	Algebra	4		4
				17

SPRING SEMESTER

ACC 104	Accounting II	4		4
ECO 201	Principles of Economics I	3		3
ENG 122	Introductory Technical & Business Writing	3		3
MAT 127	Elementary Statistics	4		4
				14

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ACC 203	Intermediate Accounting I	4		4
ACC 211	Federal Taxes I	4		4
BUS 201	Business Law I	3		3
ACC 210	Microcomputers in Accounting	2	2	3
Humanities	(Must be chosen from Literature, Fine Arts, History, OR Modern Languages)			3
				17

SPRING SEMESTER

ACC 204	Intermediate Accounting II	4		4
ACC 205	Cost Accounting	4		4
ACC 212	Federal Taxes II	2	1	2
ACC 290	Co-op Ed Experience			3
BUS 202	Business Law II	3		3
				16

Total Program Credits: 64

*CIS 100 has a prerequisite of ADM 101.

ADMINISTRATIVE SUPPORT

ASSOCIATE IN APPLIED SCIENCE DEGREE

This is a comprehensive two-year Associate in Applied Science degree program which prepares the graduate to develop a high degree of administrative support competence with personal qualities to satisfy the most exacting business standards. The program covers both the basic administrative management skills as well as advanced training for the achievement of professional status.



See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Challenge exams for keyboarding are given to those students who qualify. See program coordinator.

Upon successful completion of all program requirements, graduates will be able to:

- Develop and apply critical thinking ability and problem-solving skills.
- Communicate effectively in writing, verbal and electronic formats.
- Effectively manage time including setting priorities and demonstrate the ability to work independently.
- Achieve an acceptable level of speed/accuracy in keyboarding and the ability to correctly apply standard document formats.
- Develop proofreading and technical editing skills including the ability to use correct grammar and punctuation.
- Develop proficiency in the use of current computer applications including word processing, spreadsheets, databases, and professional presentation software.
- Apply the management skills necessary to run an office efficiently.
- Discuss the ethical and societal ramifications of technology in the workplace.

AFTER UNION COUNTY COLLEGE

Graduates will have developed a high degree of administrative support competence with personal qualities to satisfy the most exacting business standards. The program covers both the basic administrative management skills as well as advanced training for the achievement of professional status.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
MAT 113	Math Applications	3		3
ADM 101	Keyboarding for the Computer I	1	2	2
ADM 135	Proofreading & Editing Skills	3		3
BUS 101	Intro to Contemporary Business	3		3
				14

SPRING SEMESTER

ENG 122	Introductory Technical & Business Writing	3		3
ADM 102	Keyboarding for the Computer II	1	2	2
ADM 131	Administrative Procedures	3		3
ADM 217	PowerPoint OR			
CIS 117	PowerPoint	2	2	3
CIS 120	The Internet	2	2	3
Elective	Humanities	3		3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ACC 103	Accounting I	4		4
ENG 129	Public Speaking OR			
ENG 128	Dynamics of Communication	3		3
ADM 213	Word I OR			
CIS 113	Word I	2	3	3
ADM 215	Excel I OR			
CIS 115	Excel I	2	2	3
BUS 110	Business & Technology	3		3
				16

SPRING SEMESTER

ADM 140	Customer Service	3		3
ADM 214	Word II	2	3	3
ADM 216	Access	2	2	3
Elective		3		3
Elective	Social Science	3		3
Elective	Technical *	3		3
				18

Total Program Credits: 65

* See administrative support program coordinator prior to registration for technical elective.

Are online classes right for you?

Get connected to learning in a virtual classroom with a distance education class.

Turn to page 142 to learn about ONLINE, and BLENDED LEARNING available from UNION County College.

AMERICAN SIGN LANGUAGE AND DEAF STUDIES

ASSOCIATE IN ARTS DEGREE

The American Sign Language and Deaf Studies Degree Program is designed for individuals who do not have a college degree and are interested in the field of Deaf Studies, linguistics, communications, psychology, social work, rehabilitation, education of the Deaf and other related areas. The program provides a multi-disciplinary and interdisciplinary approach in American Sign Language and Deaf Studies. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. Graduates will be prepared for entry-level positions working with Deaf persons or transfer to four-year degree programs. This program can be completed either as a part-time or full-time student in a day or evening program.

Students are admitted to the ASL and Deaf Studies Program when they have demonstrated English competency and have satisfactorily completed the two semesters of the Pre-entry-level. Students are required to have satisfactorily completed ENG 101 and ENG 102 before taking ASL 201 (ASL 3) and ASL 205 (Linguistics of ASL).

Deaf and Hard of Hearing students are encouraged to participate in this program.

PROGRAM REQUIREMENTS:

A grade of 'B' or higher in the pre-entry level is required to be eligible for entry into the ASL & Studies program. Students must maintain grades of 'B' or higher to stay in the program. A grade of 'C' necessitates a conference with the Instructor(s) and Coordinator for consultation. A 'C' in more than one of the courses disqualifies the student from continuing in the program unless there were extenuating circumstances. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL & Deaf Studies Program. As mandated by the college, students must earn grades of 'C' or higher in the general education courses.

Conferences with respective instructor(s) and coordinators are by appointment only. Information about the American Sign Language and Deaf Studies and Interpreters for Deaf Programs may be obtained at the ASL&DS and AEIP office or the Counseling Office at the Plainfield Campus.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate proficiency in the use of American Sign Language and English with members of the Deaf community.
- Demonstrate knowledge of the studies of American Sign Language as a distinct modern language.
- Employ scholarly pursuit of cultural and historical studies.
- Apply linguistics and literary analysis of the language and its discourse styles.
- Compare and contrast the social and cultural characteristics of American Deaf Culture, mainstream American culture and diverse cultures within America.
- Describe the psychological and social factors affecting diverse populations within the Deaf community.
- Explain contemporary issues within the Deaf Community.
- Demonstrate effective written, spoken and signed communication skills.
- Demonstrate the skills and motivation for continued self-education.
- Demonstrate critical thinking and problem solving skills, with emphasis on using community resources to solve specific problems.
- State one's rights and responsibilities as a professional and/or a citizen in a world community.

AFTER UNION COUNTY COLLEGE

Graduates will be prepared for entry-level positions working with Deaf persons in a variety of social service settings and/or for transfer to four-year degree programs.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

PRE-ENTRY-LEVEL

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 101	American Sign Language I	3	2	4
ASL 102	Visual-Gestural Communication Techniques	1	2	2
ENG 101	English Comp I*	3	1	3
				9
SPRING SEMESTER				
ASL 103	American Sign Language II	3	2	4
ASL 104	ASL Classifiers	1	2	2
ENG 102	English Comp II*	3	1	3
HUD 104	Fingerspelling		2	1
				10

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 201	American Sign Language III	2	2	3
ASL 205	Linguistics of American Sign Language	3		3
SOC 101	Principles of Sociology	3		3
PSY 101	General Psychology	3		3
				12
SPRING SEMESTER				
ASL 202	American Sign Language IV	2	2	3
ASL 208	American Deaf Culture	3		3
CIS 100*	Intro to Computer Applications	2	2	3
MAT 117	An Introduction to Mathematical Ideas (or higher)	3		3
PSY 207	Social Psychology	3		3
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 203	American Sign Language V	2	2	3
ENG 128	Dynamics of Communication	3		3
ENG 216	Contemporary Literature*	3		3
HIS 101	Intro To Western Civilization I	3		3
PSY 105	Group Dynamics	3		3
				15
SPRING SEMESTER				
ASL 210	ASL/Deaf Literature	3		3
BIO 101	Intro to Biology OR			
BIO 102	Human Biology	3	3	4
GOV 201	American Govt. & Politics	3		3
Elective	Humanities	3		3
SOC 203	International Social Problems	3		3
				16

Total Program Credits: 81

+ This track is designed for those who are full time students. The track may differ for those who are part-time students.

*ENG 101 and ENG 102 must be completed before taking ASL 201.

AMERICAN SIGN LANGUAGE AND DEAF STUDIES

CERTIFICATE

The American Sign Language and Deaf Studies Certificate of Completion Program is designed for individuals who currently have a college degree (Associate degree or higher) and are interested in the fields of Deaf Studies, linguistics, communications, psychology, social work, rehabilitation, education of the Deaf and other related areas. The program provides a multi-disciplinary and interdisciplinary approach in American Sign Language and Deaf Studies. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. Graduates will be prepared for entry-level positions working with Deaf persons. This program can be completed either as part-time or full-time in the day or evening.

Students are admitted to the ASL and Deaf Studies Program when they have demonstrated English competency and have satisfactorily completed the two semesters of the Pre-entry-level.

Deaf and Hard of Hearing students are encouraged to participate in this program.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate proficiency in the use of American Sign Language and English with members of the Deaf community.
- Demonstrate knowledge of the studies of American Sign Language as a distinct modern language.
- Employ scholarly pursuit of cultural and historical studies.
- Apply linguistics and literary analysis of the language and its discourse styles.
- Compare and contrast the social and cultural characteristics of American Deaf Culture, mainstream American culture and diverse cultures within America.
- Describe the psychological and social factors affecting diverse populations within the Deaf community.
- Explain contemporary issues within the Deaf Community.
- Demonstrate effective written, spoken and signed communication skills.
- Demonstrate the skills and motivation for continued self-education.

- Demonstrate critical thinking and problem solving skills, with emphasis on using community resources to solve specific problems.
- State one's rights and responsibilities as a professional and/or a citizen in a world community.



PROGRAM REQUIREMENTS:

A grade of 'B' or higher in the pre-entry level is required to be eligible for entry into the ASL & Studies program. Students must maintain grades of 'B' or higher to stay in the program. A grade of 'C' necessitates a conference with the Instructor(s) and Coordinator for consultation. A 'C' in more than one of the courses disqualifies the student from continuing in the program unless there were extenuating circumstances. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL & Deaf Studies Program. As mandated by the college, students must earn grades of 'C' or higher in the general education courses.

Conferences with respective instructor(s) and coordinators are by appointment only. Information about the American Sign Language and Deaf Studies and Interpreters for Deaf Programs may be obtained at the ASL&DS and AEIP office (Room 3, Plainfield Campus) or the Counseling Office at the Plainfield or Cranford campuses.

AFTER UNION COUNTY COLLEGE

Graduates will be prepared for entry-level positions working with Deaf persons in social service settings.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

PRE-ENTRY-LEVEL

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 101	American Sign Language I	3	2	4
ASL 102	Visual-Gestural Communication Techniques	1	2	2
				6

SPRING SEMESTER

ASL 103	American Sign Language II	3	2	4
ASL 104	ASL Classifiers	1	2	2
HUD 104	Fingerspelling		2	1
				7

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 201	American Sign Language III	2	2	3
ASL 205	Linguistics of American Sign Language	3		3
				6

SPRING SEMESTER

ASL 202	American Sign Language IV	2	2	3
ASL 208	American Deaf Culture	3		3
PSY 207	Social Psychology	3		3
				9

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 203	American Sign Language V	2	2	3
ENG 128	Dynamics of Communication	3		3
ENG 216	Contemporary Literature	3		3
				9

SPRING SEMESTER

ASL 210	ASL/Deaf Literature	3		3
Elective	Humanities	3		3
				6

Total Program Credits: 43

AMERICAN SIGN LANGUAGE – ENGLISH INTERPRETING

ASSOCIATE IN APPLIED SCIENCE DEGREE

The American Sign Language-English Interpreting Program is designed for individuals who are interested in the field of American Sign Language-English Interpreting. The program provides a multi-disciplinary and interdisciplinary approach of instruction. The five-semester program (after the pre-entry-level is completed) is designed to equip students with knowledge and skills for entry-level sign language interpreting. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. The courses within the program are geared to preparing students for evaluation for certification through the National Association of the Deaf – Registry of Interpreters for the Deaf National Interpreters Certificate. Graduates will be prepared for entry-level interpreting positions working with Deaf persons or transfer to four-year degree programs. This program can be completed either as a part-time or full-time student in a day or evening program.

Students are admitted to the American Sign Language-English Interpreting Program when they have demonstrated English competency and have satisfactorily completed the Pre-entry-level courses of American Sign Language.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate proficiency in the use of American Sign Language and English with members of the Deaf community.
- Demonstrate knowledge of the studies of American Sign Language as a distinct modern language, including scholarly pursuit of cultural and historical studies, linguistics, and literary analysis.
- Explain the social and cultural characteristics of American Deaf Culture, general and diverse American culture.
- Identify and analyze the psychological and social factors affecting diverse populations within the Deaf community.
- State the ethical and professional standards of interpreters working in the field with Deaf and Hard of Hearing persons.
- Examine the types of interpretation and translation and the processes of interpretation, using theoretical models.
- Demonstrate the skills and process tasks of American Sign Language-English interpretation.
- Explain and analyze the field of interpretation from an historical perspective.
- Analyze contemporary issues in the field of interpreting and the Deaf community.
- Demonstrate effective written, spoken, and signed communication skills.
- Demonstrate the skills and motivation for continued self-education.
- Demonstrate critical thinking and problem solving skills, with emphasis on using community resources to solve specific problems.
- Analyze one's rights and responsibilities as a professional and/or a citizen in a world community.



GENERAL PROGRAM REQUIREMENTS:

A grade of 'B' or higher in the pre-entry level is required to be eligible for entry into the ASL-English interpreting program. Students must maintain grades of 'B' or higher to stay in the program. A grade of 'C' necessitates a conference with the Instructor(s) and Coordinator for consultation. A 'C' in more than one of the courses disqualifies the student from continuing in the program unless there were extenuating circumstances. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL – English Interpreting Program. Permission to do Field Experience in Interpreting (HUD 216) will be based on demonstration of proficiency via examination and consultation with the coordinator and instructors. As mandated by the college, students must earn grades of 'C' or higher in the general education courses.

AFTER UNION COUNTY COLLEGE

Graduates will be prepared for entry-level positions, based on interpreting competencies, as an interpreter with Deaf persons in a variety of community settings, to pass the written examination of the national RID certification, and/or for transfer to four-year degree programs.

RECOMMENDED SEQUENCE OF COURSE ON NEXT PAGE

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

PRE-ENTRY-LEVEL

ONE YEAR REQUIRED BEFORE ENTRY INTO PROGRAM

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 101	American Sign Language I	3	2	4
ASL 102	Visual-Gestural Communication Techniques	1	2	2
ENG 101	English Comp I*	3	1	3
				9
SPRING SEMESTER				
ASL 103	American Sign Language II	3	2	4
ASL 104	ASL Classifiers	1	2	2
ENG 102	English Comp II*	3	1	3
HUD 104	Fingerspelling		2	1
				10

FIRST YEAR

FIVE SEMESTER PROGRAM

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ASL 201	American Sign Language III	2	2	3
ASL 205	Linguistics of American Sign Language	3		3
MAT 117	An Introduction to Mathematical Ideas	3		3
HUS 101	Community Resources in Human Services	3		3
PSY 101	General Psychology	3		3
				15
SPRING SEMESTER				
ASL 202	American Sign Language IV	2	2	3
ASL 208	American Deaf Culture & History	3		3
HUD 105	Interpreting Processes: Theory & Practice	3		3
HUS 201	Externship in Human Services	3		3
SOC 101	Principles of Sociology	3		3
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
GOV 201	American Govt. & Politics	3		3
HUD 103	Text/Discourse Analysis for Interpreting	3		3
HUD 108	Interpreting Process Application in English to ASL	2	2	3
Elective	Humanities	3		3
				12
SPRING SEMESTER				
BIO 101	Intro to Biology – OR –			
BIO 102	Human Biology	3	3	4
HUD 106	Interpreting Process Application in ASL to English	2	2	3
HUD 110	Interpreter Role & Ethics	3		3
HUD 215	Advanced Techniques of Interpreting	1	2	2
				12
FALL SEMESTER (FIFTH SEMESTER)				
HUD 109	Prevent. Measures against CTD in Interpreting		2	1
HUD 216	Field Experience in Interpreting			3
				4
Total Program Credits:				77

+ This track is designed for those who are full time students.
The track may differ for those who are part-time students or not taking all the courses as suggested in the track.

* ENG 101 & 102 must be completed before taking ASL 201.

AMERICAN SIGN LANGUAGE – ENGLISH INTERPRETING

ASSOCIATE IN APPLIED SCIENCE DEGREE

continued from the preceding page

AMERICAN SIGN LANGUAGE – ENGLISH INTERPRETING

CERTIFICATE

The American Sign Language-English Interpreting Certificate Program is designed for individuals who currently have a college degree (Associate degree or higher) and are interested in the field of American Sign Language-English Interpreting. The program provides a multi-disciplinary and interdisciplinary approach of instruction. The five-semester program (after the pre-entry-level is completed) is designed to equip students with knowledge and skills for entry-level sign language interpreting. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. The courses within the program are geared to preparing students for evaluation for certification through the National Association of the Deaf-Registry of Interpreters for the Deaf National Interpreter Certificate. Graduates will be prepared for entry-level interpreting positions working with Deaf persons. This program can be completed either as part-time or full-time in the day or evening.

GENERAL PROGRAM REQUIREMENTS:

A grade of 'B' or higher in the pre-entry level is required to be eligible for entry into the ASL-English interpreting program. Students must maintain grades of 'B' or higher to stay in the program. A grade of 'C' necessitates a conference with the Instructor(s) and Coordinator for consultation. A 'C' in more than one of the courses disqualifies the student from continuing in the program unless there were extenuating circumstances. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL – English Interpreting Program. Permission to do Field Experience in Interpreting (HUD 216) will be based on demonstration of proficiency via examination and consultation with the coordinator and instructors. As mandated by the college, students must earn grades of 'C' or higher in the general education courses.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate proficiency in the use of American Sign Language and English with members of the Deaf community.
- Demonstrate knowledge of the studies of American Sign Language as a distinct modern language, including scholarly pursuit of cultural and historical studies, linguistics, and literary analysis.
- Explain the social and cultural characteristics of American Deaf Culture, general and diverse American culture.
- Identify and analyze the psychological and social factors affecting diverse populations within the Deaf community.
- State the ethical and professional standards of interpreters working in the field with Deaf and Hard of Hearing persons.
- Examine the types of interpretation and translation and the processes of interpretation, using theoretical models.
- Demonstrate the skills and process tasks of American Sign Language-English interpretation.
- Explain and analyze the field of interpretation from an historical perspective.
- Analyze contemporary issues in the field of interpreting and the Deaf community.
- Demonstrate effective written, spoken, and signed communication skills.
- Demonstrate the skills and motivation for continued self-education.
- Demonstrate critical thinking and problem solving skills, with emphasis on using community resources to solve specific problems.
- Analyze one's rights and responsibilities as a professional and/or a citizen in a world community.

AFTER UNION COUNTY COLLEGE

Graduates will be prepared for entry-level positions, based on interpreting competencies, as an interpreter with Deaf persons in community settings and to pass the written examination of the national RID certification (first of the two parts).

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

PRE-ENTRY-LEVEL

(ONE YEAR REQUIRED BEFORE ENTRY INTO PROGRAM)

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 101	American Sign Language I	3	2	4
ASL 102	Visual-Gestural Communication Techniques	1	2	2
				6
SPRING SEMESTER				
ASL 103	American Sign Language II	3	2	4
ASL 104	ASL Classifiers	1	2	2
HUD 104	Fingerspelling	2		1
				7

FIRST YEAR

(FIVE-SEMESTER PROGRAM)

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ASL 201	American Sign Language III	2	2	3
ASL 205	Linguistics of American Sign Language	3		3
HUS 101	Community Resources in Human Services	3		3
				9
SPRING SEMESTER				
ASL 202	American Sign Language IV	2	2	3
ASL 208	American Deaf Culture & History	3		3
HUD 105	Interpreting Processes: Theory & Practice	3		3
				9

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
HUD 103	Text/Discourse Analysis for Interpreting	3		3
HUD 108	ASL to English Interpreting	2	2	3
				6
SPRING SEMESTER				
HUD 106	English to ASL Interpreting	2	2	3
HUD 110	Interpreting Role & Ethics	3		3
HUD 215	Advanced Techniques of Interpreting	1	2	2
				8
FALL SEMESTER (FIFTH SEMESTER)				
HUD 109	Prev Measures Against CTD in Interpreting	2		1
HUD 216	Field Experience in Interpreting			3
				4
Total Program Credits:				49

AMERICAN STUDIES

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The American Studies Option provides opportunities for students who wish to understand the richness and diversity of American culture. This option offers a solid foundation in American history, politics, and literature accompanied by the study of related areas in the American experience. For many professions, such as teaching and law, this general education background is essential. In addition, the American Studies Option is also recommended to students who enter college without a definitive vocational goal and wish to explore the opportunities offered by many fields before deciding upon a career.



Upon successful completion of all program requirements, graduates will be able to:

- Understand some of the major concepts in the areas of American history, politics, and literature;
- Think critically about some of the major political issues that concern our nation today;
- Appreciate the contributions that some American authors have made to developments in literature;
- Be sensitive to the problems faced by some of the various groups that have made up the American experience, i.e., slaves, immigrants, native Americans;
- Be familiar with how knowledge of the humanities and the social sciences enables an individual to better appreciate the kinds of cultural developments that have taken place in America;
- Communicate clearly in both the spoken and written word.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Puzzled by Prerequisites?

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You **MUST** take and pass all prerequisites.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
Lab Science+ or Mathematics*				3-4
PSY 101	General Psychology	3		3
COM** or FIA** or Modern Languages				3
				15-16
SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
ENG 129	Public Speaking	3		3
HIS 102	Intro to Western Civilization II	3		3
Lab Science+ or Mathematics*				3-4
COM** or FIA** or Modern Languages				3
				15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 207	American Literature I	3		3
ECO 201	Principles of Economics I	OR		
ECO 202	Principles of Economics II	3		3
HIS 201	U.S. History to 1865	3		3
GOV 201	American Govt. & Politics	3		3
SOC 101	Principles of Sociology	3		3
Mathematics or Laboratory Science or Technology				3-4
				18-19
SPRING SEMESTER				
ENG 208	American Literature II	3		3
HIS 202	U.S. History Since 1865	3		3
GOV 202	American National Govt	3		3
SOC 206	Minorities in American Life	3		3
Elective***				3
				15
Total Program Credits:				63-66

+A one-year science sequence is recommended.

*MAT 117 **or** higher; see Liberal Arts Program guidelines under Mathematics course listings.

** See COM **or** FIA list of electives.

***It is suggested that the American Studies student choose electives from the following list:

ASL 101, 102	COM 109, 209	HIS 105, 106
ASL 103, 104	CRJ 101, 205	HIS 215
ASL 208	ECO 205, 207	HRS (ALL)
AST 101, 102	ENG 128, 129	MAT 119, 127
BIO 101, 102	ENG 227, 228	MAT 161, 162
BIO 103, 104	FIA 108, 111	PHI 205
BIO 109, 113	FIA 112, 117	PHY 101, 102
BIO 114, 118	FIA 120	PSY 105, 207
CHE 101, 102	GEY 101, 102	SOC 102, 205
CHE 106	GOV 203, 204	SOC 213
COM 101, 201	GOV 208	URS 101
	MOD. LANGUAGES (ALL)	

PSY 102 is recommended for students who will approach graduation with 63 credits.

ARCHITECTURE

Option offered through Engineering Program ASSOCIATE IN SCIENCE DEGREE

This program is designed to prepare students who plan for a career in architecture to transfer to a five-year baccalaureate program.

Upon successful completion of all program requirements, graduates will be able to:

- Employ critical thinking skills in science, mathematics, and fundamentals of architecture.
- Demonstrate computer literacy in 3D graphics and use of word processing, and other software applications.
- Use technology and library resources to conduct research related to architecture, mathematics, engineering, sustainability, the humanities and social science.
- Organize and present information to different audiences using various multimedia presentation techniques and platforms.

- Compare materials and methods of building construction, analyze basic structural principles, collect and measure relevant data, and evaluate information as a member of a team.
- Analyze a specific type of architectural building and compare and contrast different architectural design solutions.
- Arrange and manage a collaborative design charrette for/with local communities.
- Demonstrate the ability to pursue lifelong learning by working independently in class and on research projects to prepare a portfolio.



AFTER UNION COUNTY COLLEGE

Graduates of the Architecture program who plan for a career in Architecture transfer to a five-year baccalaureate program.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ARC 101	Architectural Design I	3	5	5
ARC 105	Intro to Architecture & Culture	3		3
ENG 101	English Comp I	3	1	3
FIA 119	History of Architecture I	3		3
FIA 109	Drawing I	1	4	3
				17
SPRING SEMESTER				
ARC 102	Architectural Design II	3	5	5
ENG 102	English Comp II	3	1	3
FIA 120	History of Architecture II	3		3
FIA 121	Architectural Graphics/Perspective	1	4	3
MAT 143	Elementary Mathematical Analysis I*	4		4
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ARC 205	Architectural CAD Design	2	3	3
PHY 101	General Physics I	3		3
PHYL 101	General Physics Laboratory I		3	1
ARC 224	Structural Design I	3		3
Elective	History	3		3
MAT 144	Elementary Mathematical Analysis II*	4		4
				17
SPRING SEMESTER				
ARC 206	Architectural 3D Design	2	3	3
PHY 102	General Physics II	3		3
PHYL 102	General Physics Laboratory II		3	1
ARC 225	Structural Design II	3		3
ARC 210	Portfolio Develop. & Presentation Methods I	3		2
ARC 218	Construction Methods & Materials	3		3
Elective	Social Science			3
				18
Total Program Credits:				70

*MAT 171, MAT 172 recommended for some transfer institutions. Consult with Architecture Coordinator.

AUDIO PRODUCTION

ASSOCIATE IN ARTS DEGREE

The Audio Production program is designed to provide students with a solid foundation for further study and employment in the growing field of Audio Production.

As a transfer program, the program provides a foundation in academic and general studies courses, which prepare students for further study at four-year programs in this discipline both locally and nationally.



Additionally, the program intends to create graduates with the requisite training and skills to begin working with industry standard equipment and software to compose and record their own compositions and compete for entry-level positions in the field.

Other Communications Degrees Include:

- Communications
- Film
- Game Design Creation
- Journalism
- Multimedia
- Public Relations
- Radio
- Television

Upon successful completion of all program requirements, graduates will be able to:

- Recount the history of audio recording technology;
- Understand, in conducting research, the importance of qualifying source material, using time honored structures such as peer review and disciplinary standards;
- Demonstrate an understanding of the recording industry as a business;
- Show a level of comfort and proficiency with standard productivity software such as Adobe Audition, Cubase SX and Pro Tools, as well as an understanding of the ways in which these tools are applied in the audio production field;
- Understand and apply all phases of audio production in the contemporary music studio environment;
- Identify the fundamental process and sequence involved in the production of audio composition;
- Identify the different roles and responsibilities of the recording studio staff members;
- Identify the historical development of musical performance;
- Understand the essentials of audio engineering, the fundamentals of digital imaging and video editing for New Media applications.

AFTER UNION COUNTY COLLEGE

Graduates may transfer to four-year colleges or universities in Audio Production or a similar degree program and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 100	Communications Technologies	3	2	4
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology	3		3
MAT	Any 4 credit mathematics course	4		4
				17

SPRING SEMESTER

COM 103	Intro to Radio Broadcasting	3		3
ENG 102	English Comp II	3	1	3
ENG 128	Dynamics of Communications			
OR				
ENG 129	Public Speaking	3		3
Elective	Social Science	3		3
	Laboratory Science	3	3	4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 203	Audio Production I	3		3
ENG	200-Level Literature course	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt. & Politics	3		3
FIA 105	Music Appreciation	3		3
COM 209	The Evolution of Film	3		3
				18

SPRING SEMESTER

COM 213	Audio Production II	3		3
ENG	200-Level Literature course	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt	3		3
Elective	Humanities	3		3
				15

Total Program Credits: 66

AUDIO PRODUCTION

CERTIFICATE

The Audio Production program will provide students with a solid foundation for further study and employment in the growing field of Audio Production. Students will learn the foundation of multi-track session recording as well as Mastering/Restoration techniques.

The program intends to create graduates with the requisite training and skills to begin working with industry standard equipment and software to compose and record their own compositions and compete for entry-level positions in the field. Emphasis will be placed on how DAW & MIDI (Cubase & Adobe Audition) systems operate, giving the students a broad understanding of their uses.



Upon successful completion of all program requirements, graduates will be able to:

- Recount the history of audio recording technology;
- Conduct research, understand the importance of qualifying source material, using time honored structures such as peer review and disciplinary standards;
- Demonstrate an understanding of the recording industry as a business;
- Demonstrate a level of comfort and proficiency with standard productivity software such as Adobe Audition, Cubase SX and Pro Tools, as well as an understanding of the ways in which these tools are applied in the audio production field;
- Understand and apply all phases of audio production in the contemporary music studio environment;
- Identify the fundamental process and sequence involved in the production of audio composition;
- Identify the different roles and responsibilities of the recording studio staff members;
- Identify the historical development of musical performance;
- Understand the essentials of audio engineering, the fundamentals of digital imaging and video editing for New Media applications.

AFTER UNION COUNTY COLLEGE

Graduates can work in the field of Audio Production in a studio setting, or continue study in the Audio Production Associate degree program here at Union County College.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 100	Communications Technologies	3	1	4
ENG 101	English Comp I	3	1	3
COM 103	Intro to Radio Broadcasting	3		3
				10

SPRING SEMESTER

COM 203	Audio Production I	3		3
FIA 105	Music Appreciation	3		3
PSY 101	General Psychology	3		3
				9

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 213	Audio Production II	3		3
COM 209	Evolution of Film	3		3
				6
SPRING SEMESTER				
HIS 101	Intro to Western Civilization I	3		3
COM 216	Digital Video Editing & Multimedia Imaging	3		3
				6
Total:				31

AUTOMOTIVE TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE

This program is a cooperative program between Union County Vocational-Technical School and Union County College. All courses are taught by Union County College faculty. The AUT professors are ASE certified. The AUT courses will be offered only on the Scotch Plains campus of Union County College at the state of the art automotive facility of the Vocational-Technical School.



The Automotive Technology Program is a competency-based course of study designed to train and prepare the serious student in eight automotive areas: A/C & Heating, Brakes, Steering & Suspension, Electrical & Electronic Repair, Engine Performance, Engine Repair, Manual Drive Trains, and Automatic Transmissions. Eligible Auto Technology students may participate in work activities such as internships, mentoring, apprenticeships and Cooperative Industrial Education.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate theoretical and practical competency in each of the ASE areas covered within the Automotive Technology Curriculum.
- Apply automotive repair methods to satisfy business and industry standards.
- Employ automotive computer software applications to diagnosis automotive problems.
- Utilize automotive computer software applications to generate technical service bulletins and procedures for repair of automotive problems.
- Employ critical thinking and problem solving skills in the solution of automotive problems.
- Manage a team project both as a leader and as a member.
- Demonstrate theoretical and practical competency to attain ASE certification and repair licensing required within the Automotive Industry.

AFTER UNION COUNTY COLLEGE

Upon graduating the student will be eligible to take ASE certification exams. Union County Vocational School is an ASE certified testing center. Graduates are qualified to work in all automotive service facilities. Employment opportunities include dealerships, independent & specialty shops, chain stores, municipalities, fleet and corporate facilities as well as self employment. This AAS degree is not transferable to a four year institution, but many of the non-technology courses may transfer.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER¹				
AUT 100	Automotive Fundamentals	3	3	4
AUT 101	Steering/Suspension Systems	3	3	4
AUT 102	Manual Drive Trains	3	3	4
ENG 101	English Comp. 1 ²	3		3
MAT 113	Math Applications ³	3		3
				18
SPRING SEMESTER				
AUT 103	Brake Systems	3	3	4
AUT 121	Automotive Electrical I	3	3	4
CIS 100	Introduction to Computer Applications	2	2	3
ENG 122	Introductory Technical & Business Writing	3		3
				14

SECOND YEAR

FALL SEMESTER				
AUT 122	Automotive A/C and Heating	3	3	4
AUT 131	Automotive Engine Performance I	3	3	4
AUT 201	Engine Repair	3	3	4
Elective	Humanities Elective	3		3
				15
SPRING SEMESTER				
AUT 202	Automotive Electrical II	3	3	4
AUT 203	Automatic Transmission	3	3	4
AUT 232	Automotive Engine Performance II	3	3	4
Elective	Social Science Elective	3		3
Elective	General Education Elective	3/4		3/4
				18-19
Total Program Credits:				65-66

Notes:

- 1 AUT 100 must be taken as a co/prerequisite or test out by permission of the Automotive Coordinator.
- 2 Course determined by English Placement test.
- 3 Course determined by Math Placement test.

BIOLOGY

ASSOCIATE IN ARTS DEGREE

The Biology Department offers a degree program that combines basic biological courses with additional course work in chemistry, mathematics, and the liberal arts. The degree program prepares students primarily for advanced study at a four-year institution. Students should note that the Department has many articulation agreements with four-year colleges designed to facilitate transfer to these institutions.

Candidates for the program should present two years of high school algebra, one year of geometry or trigonometry, one year of biology, and one year of chemistry. High School Physics is also strongly recommended.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate a broad base of knowledge in the biological sciences as indicated by their ability to utilize the terminology, concepts, and principles of biology in oral and written work.
- Describe the scientific method and apply it to hypothetical or laboratory problems.
- Describe the relationship between mankind and the natural world.
- Utilize critical thinking skills to understand and solve problems.
- Communicate effectively in oral and written formats.
- Demonstrate information literacy skills and the use of technology for gathering information.



AFTER UNION COUNTY COLLEGE

Graduates can prepare for a career in biology or for advanced study at a four-year institution. The Biology Department has many articulation agreements with four-year colleges designed to facilitate transfer to these institutions.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

Student **MUST** complete all remedial English classes **PRIOR** to enrolling in any credit level Biology or Geology class.

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
BIO 111	General Biology I	3	3	4
CHE 111	General Chemistry I	3	3	4
ENG 101	English Comp I	3	1	3
MAT 143	Elementary Mathematical Analysis I or			
MAT 171	Unified Calculus I	4		4
				15

SPRING SEMESTER

BIO 112	General Biology II	3	3	4
CHE 112	General Chemistry II	3	3	4
ENG 102	English Comp II	3	1	3
MAT 144	Elementary Mathematical Analysis II or			
MAT 172	Unified Calculus II	4		4
Elective	General	3		3
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
Elective	Biology/Chemistry/Physics*			4-5
Elective	History**			3
Elective	Social Science**			3
Elective	Humanities (2) **			6
				16-17

SPRING SEMESTER

Electives	Biology/Chemistry/Physics*			4-5
Elective	Social Science**			3
Elective	Humanities**			3
Elective	Communication**			3
Elective	History**			3
				16-17

Total Program Credits: 65-67

Students are encouraged to take Bio 111 before Bio 112.

* Students who intend to continue as Biology majors at a four year institution are advised to substitute CHE 211 & 212 or PHY 101 & 102 for their Biology electives in semesters 3 and 4.

**At least one of these General Education electives must also be classified as a Diversity course.

Is a 4-year degree in your future?

An Associate of Arts (A.A.) or Associate of Science (A.S.) degree from Union County College is **fully transferable** as the first two years of a baccalaureate degree program at any New Jersey public four-year institution under the Comprehensive State-Wide Transfer Agreement.

BUSINESS

ASSOCIATE IN ARTS DEGREE

The Associate in Arts Degree in Business prepares students for a career in business or for advanced study at a four-year institution. The College has many articulation agreements with four-year colleges designed to facilitate transfer to these institutions. For further information, please see the Transfer Counselor. The degree requirements consist of general education requirements and electives in preparation for a major area of study.

See paragraph "Qualifications for Admission to Degree Program" for desired high school background (see page 11).



Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively in written, verbal, and electronic formats.
- Describe the practice and principles of a mixed economy based market business.
- Describe the application of macroeconomic and microeconomic theories and concepts as it relates to a mixed economy based market.
- Develop and maintain an accounting system and analyze statistical data.
- Utilize technology as it applies to business practices and research.
- Enumerate the principles governing ethical behavior in business.

AFTER UNION COUNTY COLLEGE

This is a transfer program. Students in this program complete the first two years of their baccalaureate program with a solid background in accounting, management and marketing. Graduates transfer to senior colleges and universities and can take advantage of articulation agreements negotiated with senior receiving institutions.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ACC 103	Accounting I	4		4
CIS 100	Introduction to Computer Applications	2	2	3
ENG 101	English Comp. I	3		3
Elective	General Ed History	3		3
Elective	General Ed Social Science	3		3
				16

SPRING SEMESTER				
ACC 104	Accounting II	4		4
BUS 101	Introduction to Contemporary Business or			
BUS 105	Organization & Management	3		3
ENG 102	English Comp. II	3		3
Elective	General Ed History	3		3
Elective	General Ed Humanities	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
Elective	General Ed Social Science	3		3
Elective	General Ed Humanities	3		3
Elective	Lab Science	3	3	4
Elective	Business	3		3
MAT 143	Elementary Mathematical Analysis I	4		4
				17

SPRING SEMESTER				
BUS 201	Business Law I	3		3
Elective	General Ed Humanities	3		3
MAT 146	Brief Calculus with Application or			
MAT 246	Business Statistical Analysis or			
	Lab Science	3	1/3 3/4	
Elective	General Ed Diversity	3		3
Elective	ENG 128 or ENG 129	3		3
				15-16

Total Program Credits: 64-65 credits

Students are encouraged to contact the specific transfer institution when choosing general education electives.

BUSINESS MANAGEMENT

ASSOCIATE IN APPLIED SCIENCE DEGREE

Developed for the student who wishes to acquire additional management skills and is planning a program in preparation for a business career of his/her choice. Flexibility in course selection enables the student to achieve his/her specific educational, career and personal goals. The Business Management program has been designed as a career program in preparing students for first line and/or mid-management positions.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively in written, verbal, and electronic formats.
- Describe past and current management theories and principles and application.
- Describe the psychological and sociological theories that support the management practice of employee motivation, morale and team building to accomplish organizational objectives.
- Describe the challenges facing management in a changing domestic and global business environment.
- Enumerate the principles governing ethical behavior in business.



AFTER UNION COUNTY COLLEGE

This career program is designed for the student to enter the profession upon graduation. Graduates may work as managers, shift supervisors, management analysts and assistant managers of retail stores. Many students elect to continue their studies at four year colleges or universities.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ACC 103	Accounting I	4		4
BUS 101	Intro to Contemporary Business	3		3
ECO 201	Principles of Economics I			or
ECO 202	Principles of Economics II	3		3
ENG 101	English Comp I	3	1	3
MAT 113	Math Applications	3		3
				16

SPRING SEMESTER

ACC 104	Accounting II	4		4
BUS 105	Organization & Management	3		3
CIS 100	Intro to Computer Applications	2	2	3
ENG 122	Introductory Technical & Business Writing			or
ENG 128	The Dynamics of Communication			or
ENG 129	Public Speaking			3
PSY 101	General Psychology			or
SOC 101	Principles of Sociology	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
BUS 201	Business Law I	3		3
BUS 208	Principles of Marketing	3		3
Elective	History, Modern Language	3		3
Electives	Business, Administration Support, or			
Computer	(CIS, CSC) Courses*			7
				16

SPRING SEMESTER

BUS 290	Co-op Ed Experience			or
ACC 290	Co-op Ed Experience			3
Elective	General Education			3
Electives	Business, Administrative Support, or			
Computer	(CIS, CSC) Courses*			10
				16

Total Program Credits: 64

* A total of 17 credits in Business, Administrative Support, or Computer (CIS, CSC) courses must be taken.

BUSINESS MARKETING

ASSOCIATE IN APPLIED SCIENCE DEGREE



The Marketing Program prepares students with a fundamental knowledge of business procedures with an emphasis on a specialization in Marketing. Additionally, the program contains a substantial general education component to provide students with a more complete educational background. Although this program is not designed to be a transfer program, many of the courses would be acceptable for transfer. Upon completion of this program, students will be qualified to enter entry-level positions in advertising, marketing, public relations, and retailing and sales. Individuals currently employed in the Marketing area may wish to sharpen their skills by enrolling in certain courses or the entire program.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively in written, verbal, and electronic formats.
- Demonstrate an ability to do product planning, distribution, pricing and promotion in support of a specified marketing initiative.
- Discuss the sociological and psychological principles that apply when studying and managing the behavior of customers/consumers.
- Describe the general environmental factors that impact local, national and global trade.
- Enumerate the principles governing the ethical practices of the marketing industry.

AFTER UNION COUNTY COLLEGE

This career program is designed for the student to enter the profession upon graduation. Graduates are qualified to enter entry-level positions in Advertising, Marketing, Public Relations, and Retailing and Sales. Many students elect to continue their studies at four year colleges or universities.

Do you need a flexible schedule?

Take a weekend or evening class to fit learning into your busy life. Or, consider an online course to help you reach your goals!

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ACC 103	Accounting I	4		4
BUS 101	Intro to Business	3		3
ECO 201	Principles of Economics I	or		
ECO 202	Principles of Economics II	3		3
ENG 101	English Comp I	3		3
MAT 113	Math Applications	or		
MAT 119	Algebra	3-4		3-4

16-17

SPRING SEMESTER

ACC 104	Accounting I	4		4
BUS 105	Organization & Management	3		3
BUS 136	Retailing Techniques	3		3
ENG 102	English Comp II	or		
ENG 122	Introduction to Business & Technical Writing	3	1	3
CIS 100	Intro to Computer Applications*	or		
CIS 101	Intro Information Systems**	2	2	3

16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
BUS 201	Business Law I	3		3
BUS 208	Principles of Marketing	3		3
BUS 137	Salesmanship	3		3
BUS 138	Retail Buying & Merchandising	3		3
BUS 200	Small Business Management	3		3
PSY 101	General Psychology	or		
SOC 101	Principles of Sociology	3		3

18

SPRING SEMESTER

BUS 203	Principals of Advertising	3		3
BUS 210	Marketing & the Global Environment	3		3
BUS 290	Co-op Ed Experience	3		3
Elective	CIS	3		3
Elective	History or Modern Language	3		3

15

Total Program Credits: 65-66

* Required that students take ADM 101 prior to CIS 100.

** CIS 100 is a prerequisite of CIS 101

CHEMISTRY

ASSOCIATE IN ARTS DEGREE

The Chemistry Department offers a degree program that combines basic chemistry courses with additional course work in biology, mathematics, physics, and the liberal arts. The degree program prepares students primarily for advanced study at a four-year institution. Students should note that the Department has many articulation agreements with four-year colleges designed to facilitate transfer to these institutions.

Candidates for the program should present two years of algebra, one year each of geometry, chemistry, physics, and trigonometry, as high school entrance credits. High school biology is also strongly recommended.

All students enrolled in the Chemistry Program must take a mathematics placement test. Test scores will determine the sequence of mathematics courses required.

Consultation with a Chemistry faculty member is advised.

Upon successful completion of all program requirements, graduates will be able to:

- Evaluate how chemical theories explain the natural world;
- Identify a chemical problem and analyze it in terms of its significant parts and the information needed to solve it;
- Differentiate between theory and practice in the chemical sciences;
- Perform laboratory experiments and measurements that include graphing and analyzing data;
- Assess and effectively communicate oral and written chemical information;
- Communicate effectively in written, verbal and electronic formats.



AFTER UNION COUNTY COLLEGE

Graduates can take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Puzzled by Prerequisites?

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You **MUST** take and pass all prerequisites.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
CHE 111	General Chemistry I	3	3	4
MAT 171	Unified Calculus I	4		4
Elective	Humanities**	3		3
Elective	Humanities**	3		3
				17

SPRING SEMESTER

ENG 102	English Comp II	3	1	3
CHE 112	General Chemistry II	3	3	4
PHY 111	Mechanics*	3	3	4
MAT 172	Unified Calculus II	4		4
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CHE 211	Organic Chemistry I	3	6	5
MAT 265	Linear Algebra OR	3		3
PHY 201	Electricity & Magnetism*	3	3	4
Elective	Humanities**	3		3
Elective	History**	3		3
Elective	Social Science**	3		3
				17-18

SPRING SEMESTER

CHE 212	Organic Chemistry II	3	6	5
Elective	History**	3		3
Elective	Social Science**	3		3
Elective	Diversity***	3		3
ENG 128	The Dynamics of Communication OR			
ENG 129	Public Speaking	3		3
				17

Total Program Credits: 66-67

* PHY 101-102 may be substituted. Please consult with a Chemistry Department faculty member and/or advisor from your potential transfer institution.

** Courses must be selected from the list of General Education courses listed in the catalogue.

*** Select a diversity course that also meets one of the above-listed elective requirements Foundation document – "if this goal is integrated into one or more general education course(s), the three credits may be moved from this category to another general education category."

Students interested in medicine, pharmacy, biochemistry and related science fields are strongly encouraged to take BIO 111 and BIO 112 (lecture and lab) in addition to the requirements listed above.

COMMUNICATIONS

ASSOCIATE IN ARTS DEGREE

The Communications curriculum is designed for transfer to a bachelor's program in communications or related discipline. Options are available for students who have decided that they are particularly interested in a certain field. Faculty advisors are available in the Communications program and students are encouraged to consult with a faculty advisor regarding appropriate option and course selection for their needs and interests.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse.
- Discuss and analyze current social and political issues and events.
- Demonstrate proficiency with productivity software such as word processing, presentation manager, web browser and apply them in the field of communications.
- Explain the importance of committing to a process of life-long learning.
- Compare and contrast prevalent cultural narratives and texts and the various media used to convey them .



Other Communications Degrees Include:

- Audio Production
- Film
- Game Design Creation
- Journalism
- Multimedia
- Public Relations
- Radio
- Television

AFTER UNION COUNTY COLLEGE

Graduates can prepare to transfer into a four-year college or university Communication program and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 100	Communications Technologies	3	2	4
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
MAT	Any 4-credit Mathematics* course			4
HIS 101	Intro to Western Civilization I	3		3
				17

SPRING SEMESTER

COM 201	Issues in Mass Media	3		3
ENG 102	English Comp II	3	1	3
	Any Laboratory Science	3	3	4
ENG 128	The Dynamics of Communication			or
ENG 129	Public Speaking	3		3
HIS 102	Intro to Western Civilization II	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM	Elective	3		3
ENG	200-Level	3		3
	Modern Language	3		3
GOV 201	American Govt & Politics	3		3
PSY 101	General Psychology	3		3
Elective	Social Science	3		3
				18

SPRING SEMESTER

COM	Elective	3		3
ENG	200-Level	3		3
	Modern Language	3		3
GOV 202	American National Govt	3		3
	Diversity Elective	3		3
				15

Total Program Credits: 66

COMPUTER INFORMATION SYSTEMS & TECHNOLOGY

ASSOCIATE IN SCIENCE DEGREE

Information systems (IS) technology changes are occurring across the US and the world. With these advances have also come changes in the ways that information can be accessed and shared. These have precipitated the need for well-educated IS professionals. This curriculum has been designed to meet the needs of current IS professionals as well as to prepare future IS professionals.

Information Systems positions are becoming more diversified. Students who complete the curriculum will have a strong foundation in interpersonal and communication skills, problem-solving skills, critical thinking skills, and ethics.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively in writing, verbal and electronic formats to diverse multi-cultural audiences within a business environment.
- Demonstrate appropriate interpersonal skills in the classroom environment.
- Apply problem solving skills to trouble-shoot and correct problems in a business environment.
- Design and create efficient databases.
- State the ethical responsibilities necessary for IT businesses and organizations.
- Describe and use the basic tools for computer and network security.



AFTER UNION COUNTY COLLEGE

Graduates will work as an Information System professional in a variety of settings or transfer to a four-year degree program.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ACC 103	Accounting I	4		4
BUS 105	Organization & Management	3		3
CIS 100	Intro to Computer Applications	2	2	3
ENG 101	English Comp I	3	1	3
HIS 101	Western Civilization I or Modern Language*	3		3
				16

SPRING SEMESTER				
CIS 101	Intro to Information Systems	2	2	3
CIS 116	Access	2	2	3
ENG 102	English Comp II	3	1	3
HIS 102	Western Civilization II or Modern Language*			3
PSY 101	General Psychology	3		3
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
BUS 201	Business Law I	3		3
CIS 204	Database Management	2	1	3
Elective	Laboratory Science			4
ENG	English***			3
MAT	Mathematics**			3-4
				16-17

SPRING SEMESTER				
CIS 202	Structured Systems Analysis	3	1	3
ECO 201	Economics I or			
ECO 202	Economics II	3		3
Elective	Humanities			3
MAT	Mathematics**			3-4
Elective	CIS/CSC			3
				15-16

Total Program Credits: 62-64

* A one-year sequence in either

** See program coordinator for appropriate mathematics course.

*** ENG 122, ENG 128 or ENG 129

Are you great with numbers?

Do numbers rule your universe?
Turn to page 99 to learn about UNION County College's Associate in Science degree in Mathematics.

COMPUTER SCIENCE

ASSOCIATE IN APPLIED SCIENCE DEGREE

Computer Science is a two-year Associate in Applied Science degree program. A graduate of the program can be employed as an entry-level computer programmer, engineering assistant, computer operator, or may be able to continue his/her education in the computer field at a four-year degree-granting institution. The objective of the program is to develop logical thinking and problem-solving skills using current programming languages with modern computer systems. Hands-on software programming occupies a significant amount of the student's time. Computers for student use are available on each campus.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively in writing, verbal and electronic formats.
- Apply problem solving techniques to various situations within the computer science and related fields.
- Design, write, and test well-defined, complete, logical programs that meet the defined specifications.
- Prepare accurate program documentation.
- Discuss the ethical and societal ramifications of the use of software and the computer.
- Apply the concepts and techniques of computation, algorithms, and software design to problems in applied fields.



AFTER UNION COUNTY COLLEGE

Graduates of this program can be employed as entry-level computer programmers, engineering assistants, computer operators, or may continue their education in the computer field at a four-year degree-granting institution.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ACC 103	Accounting I	4		4
CSC 101	Computer Algorithms	2	2	3
ENG 101	English Comp I	3	1	3
MAT 119	Algebra	4		4
Gen Ed Elective	Humanities			3
				17
SPRING SEMESTER				
ACC 104	Account II	4		4
CSC 102	Data Structures	2	2	3
Elective	Technical**	3		3
ENG 122	Introductory Technical & Business Writing	3	1	3
MAT 127	Elementary Statistics	4		4
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
BUS 105	Organization & Management	3		3
CSC 202	Structured Systems Analysis & Design	3	1	3
CSC 222	Organization, Operation, & Assembly Language	3	1	3
CSC 226	Intro to Operating Systems	3		3
ECO 201	Principles of Economics I	3		3
				15
SPRING SEMESTER				
CSC 290	Co-op Ed Experience*			3
Electives	Technical			9
Elective	General Education			3
				15

Total Program Credits: 64

* An elective approved by the Coordinator may be substituted

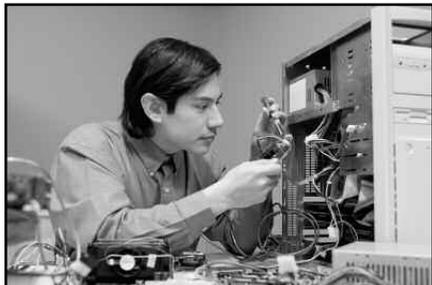
** Technical Electives:

CIS 106	Java Programming	3
CIS 120	The Internet	3
CIS 130	Intro to Visual Basic	3
CIS 132	Intermediate Visual Basic3	
CIS 204	Database Management	3
CIS 205	Data Communications & Networks	3
CIS 210	Principles of Information Security	3
CSC 285	Special Topics in Computer Programming	3

COMPUTER SCIENCE/ENGINEERING

Option offered through the Professor Elmer Wolf Engineering Program ASSOCIATE IN SCIENCE DEGREE

FOR COMPUTER ENGINEERING SEE "ENGINEERING" ON PAGE 84



The Computer Science Option offers the first two years of a computer science curriculum and prepares graduates for successful transfer to bachelor's degree programs at leading engineering colleges throughout the country. Computer science, as an option in the Engineering program, studies theoretical and practical problems of system implementation involving both software and hardware. The program prepares the student for a career in the design and development of computer systems. Baccalaureate degree graduates understand hardware and software and can engineer computer systems for a variety of customer applications.

Union County College has dual admission agreements with New Jersey Institute of Technology and Rutgers University. These allow Union County College graduates to transfer with junior status without going through a second admission process. Union County College also has formal transfer agreements with many other colleges.

Applicants for the Computer Science Option must present two years of algebra and one year of geometry, trigonometry, chemistry, and physics, as high school entrance credits. Students deficient in any of these subjects must take the appropriate preparatory courses. All candidates are required to take a mathematics and a physics placement test.

Upon successful completion of all program requirements, graduates will be able to:

- Apply knowledge of computer algorithms, data structures, assembly language, and programming and data processing skills to analyze computer applications.
- Apply knowledge of computer system components, organizations, and software operating systems to evaluate computer applications.
- Analyze problems of a technical nature and design computer based solutions.
- Analyze and assess the validity of experimental data.
- Express and interpret both technical and non-technical concepts orally, in writing and in electronic formats.
- Manage a team project both as a leader and as a member.
- Interpret technical concepts to a non-technical audience.
- Evaluate the merits of alternative proposals for solving problems.

AFTER UNION COUNTY COLLEGE

Graduates will be prepared for careers in the design and development of computer systems. Graduates may also transfer to a 4-year institution.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CHE 111	General Chemistry I	3	3	4
CSC 101	Computer Algorithms	2	2	3
ENG 101	English Comp I	3	1	3
MAT 171	Unified Calculus I	4		4
EKG 105	Intro to Fundamentals of Engineering	3		3
				17

SPRING SEMESTER

ENG 102	English Comp II	3	1	3
CSC 102	Data Structures	2	2	3
MAT 172	Unified Calculus II	4		4
PHY 111	Mechanics	3		3
PHYL 111	Mechanics Laboratory	3	1	
HIS	Elective	3		3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CSC 226	Intro to Operating Systems	3		3
MAT 271	Unified Calculus III	4		4
PHY 201	Electricity & Magnetism	3		3
PHYL 201	Electricity & Magnetism Laboratory		3	1
ECO 201	Principles of Economics I	or		
ECO 202	Principles of Economics II	3		3
PSY 101	General Psychology	or		
SOC 101	Principles of Sociology	3		3
				17

SPRING SEMESTER

CSC 222	Organization, Operation & Assembly Language	3	1	3
MAT 272	Differential Equations	4		4
MAT 246	Business Statistical Analysis	4		4
HIS	Elective	3		3
				14

Total Program Credits: 65

* MAT 265 or MAT 272 may be substituted. Consult with the four-year transfer institution.

CONSTRUCTION ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

FOR CIVIL ENGINEERING SEE "ENGINEERING" ON PAGE 84

This is a two-year program that prepares students for technical employment in field or office positions related to the design, layout, and construction of land subdivisions, buildings, streets and highways, bridges, storm drainage projects, water supply facilities, pollution control systems, and other public works infrastructures. Graduates receive the Associate in Applied Science degree and have the option of working with engineering or architectural firms, surveyors, building contractors, municipal engineering departments, public utility companies or construction inspection and material testing companies. They also are able to continue their education on a part-time or full-time basis at other colleges that offer a four-year Bachelor of Science Degree in Engineering Technology. Those colleges normally accept two full years of credit from graduates who have good academic standing.



See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Define basic construction methods and building material properties including structural steel, concrete and wood;
- Utilize computer-aided drafting skills to create topographic maps, profiles, sections, and engineering shop drawings;
- Perform standard laboratory and field soil tests, such as sieve analysis, moisture content, and liquid and plastic limits;
- Using standard electronic surveying instruments, perform as a knowledgeable, skillful, and productive member of a surveying crew as demonstrated in classroom activities.

- Compute forces, stresses and strains in simple structural members by using basic principles of statics and strength of materials;
- Using the basic principles of fluid mechanics, calculate hydrostatic pressure, forces on submerged surfaces, flow rates and pressure gradients in pipe lines and open channels;
- Perform material quantity takeoffs and cost estimating calculations for excavation, site work, concrete, masonry, steel and wood construction;
- Evaluate the contractual arrangements and roles of the owner engineer or architect and builder in the process by which public and private infrastructure is designed and constructed in the USA;
- Demonstrate competency in utilizing computer software applications necessary in the civil construction engineering technology field.

AFTER UNION COUNTY COLLEGE

Graduates have the option of working with engineering or architectural firms, surveyors, building contractors, municipal engineering departments, public utility companies or construction inspection and material testing companies. They also are able to continue their education on a part-time or full-time basis at other colleges that offer a four-year Bachelor of Science degree in Engineering Technology.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
MAT 143	Elementary Mathematical Analysis I	4		4
CSC 115	Intro to Computer Programming	2	2	3
EET 101	Principles of DC Circuits	3	3	4
MET 109	Computer-Aided Drafting	2	3	3

17

SPRING SEMESTER

ENG 122	Introductory Technical & Business Writing or			
ENG 102	English Comp II	3	1	3
MAT 144	Elementary Mathematical Analysis II	4		4
PHY 101	General Physics I	3		3
PHYL 101	General Physics I Laboratory		3	1
CIT 108	Soil Mechanics	2	2	3
MET 112	Mechanics-Statics	3		3

17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
PHY 102	General Physics II	3		3
PHYL 102	General Physics II Laboratory		3	1
CIT 205	Surveying	3	3	4
CIT 210	Strength of Materials	3	1	3
CIT 215	Fluid Mechanics	3	1	3
Elective*	Technical	3		3

17

SPRING SEMESTER

Elective	Humanities			3
Elective	Technical*			3
ECO 202	Microeconomics	3		3
CIT 201	Structural Design	3	1	3
CIT 214	Construction Procedures	3		3

15

Total Program Credits: 66

* MAT 171 and MAT 172 Unified Calculus recommended for Transfer to a 4-Year Institution

CRIMINAL JUSTICE

ASSOCIATE IN ARTS DEGREE

The Criminal Justice Program is designed to develop law enforcement professionals, other criminal justice personnel and others who, after completion of the two-year program, will be prepared to continue their studies in fields such as police administration, public administration, legal studies, and management. See paragraph "Qualifications for Admission to Degree Program" for desired high school background (see page 11).



Upon successful completion of all program requirements, graduates will be able to:

- Discuss the field of criminal justice including police organization, administration and management systems.
- Demonstrate basic forensic procedures.
- State their ethical responsibilities for the field of criminal justice and for their role as an officer of the law.
- Communicate effectively in writing, verbal and electronic formats with particular emphasis on police reports.
- Apply problem solving skills to specific criminal justice situations.
- Discuss the social and psychological characteristics of offenders.

AFTER UNION COUNTY COLLEGE

Graduates can continue their studies in fields such as police administration, public administration, legal studies, and management at a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements UNION County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Do you need a quicker way to your career?

Consider a Certificate program. From Criminal Justice to Paramedic training, Certificate programs require fewer credit hours and some can be completed in as few as two semesters!

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CRJ 101	Intro to Criminal Justice	3		3
ENG 101	English Comp I	3	1	3
HIS 201	US History to 1865	3		3
Laboratory Science or				
MAT	Mathematics*			3-4
PSY 101	General Psychology	3		3
				15-16

SPRING SEMESTER				
CRJ 102	Police Organization & Administration	3		3
ENG 102	English Comp II	3	1	3
HIS 202	US History since 1865	3		3
Laboratory Science or				
CRJ 103	Intro to Forensic Procedure or			
MAT	Mathematics*			3-4
PSY 207	Social Psychology	3		3
				15-16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CRJ 201	Police Management Systems	3		3
CRJ 203	Criminal Investigation	3		3
ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
GOV 201	American Govt. & Politics	3		3
SOC 101	Principles of Sociology	3		3
Elective	Humanities			3
				18

SPRING SEMESTER				
CRJ 205	Police Role in the Community	3		3
CRJ 206	Criminal Law or			
CRJ 207	Special Police Operations or			
GOV 204	Public Administration	3		3
GOV 202	American National Govt	3		3
SOC 206	Minorities in American Life	3		3
Electives	General			3-6
				15-18

Electives may be chosen from any field. See program coordinator for specific recommendations.

*MAT 117 or higher.

CRIMINAL JUSTICE

CERTIFICATE



Criminal Justice is a 30-31 credit program designed for individuals who are interested in the fields of police, corrections, probation, parole, and juvenile delinquency.

Upon successful completion of all program requirements, graduates will be able to:

- Discuss the field of criminal justice including police organization, administration and management.
- Discuss the rights and responsibilities of an officer of the law.
- State the procedures involved in criminal investigation and how they are applied.
- Communicate effectively in writing, verbal and electronic formats with particular emphasis on police reports.

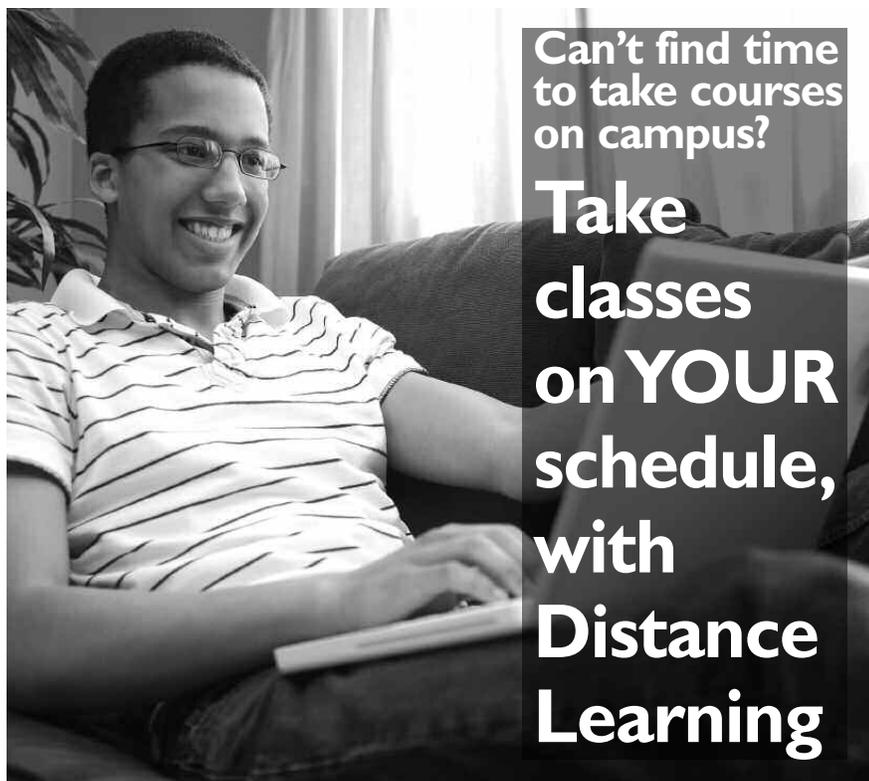
AFTER UNION COUNTY COLLEGE

Graduates can work in the field of criminal justice or can further their education in the field.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

COURSE#	COURSE	LEC.	LAB	CR.
CRJ 101	Intro to Criminal Justice	3		3
CRJ 102	Police Administration	3		3
CRJ 201	Police Management Systems	3		3
CRJ 203	Criminal Investigation	3		3
CRJ 205	Police Community Relations	3		3
CRJ 206	Criminal Law OR			
CRJ 208	Community Supervision of the Offender	3		3
CRJ 223	Security in Business & Industry	3		3
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology	3		3
Elective	Mathematics OR Science OR			
CIS 100	Intro to Computer Applications			3-4
Total Program Credits:				30-31



Can't find time to take courses on campus?

Take classes on **YOUR** schedule, with **Distance Learning**

What is Distance Learning?

It is flexible, learner-centered instruction that lets you learn at home or from almost anywhere. Designed for students who need more flexibility than traditional classes offer, Distance Learning courses provide the opportunity to earn college credit no matter where you are or what your busy life demands.

Are distance learning courses different?

Distance learning courses are equivalent to traditional courses with the same requirements. For example, some upper level courses have prerequisites. The difference is that most of the information is presented over the Internet. For online courses*, students must have the required computers and software.

How can I find out more?

For complete details about all Distance Learning course formats and offerings, please visit www.ucc.edu/DistanceEducation.

• UNION COUNTY COLLEGE IS ONE OF THE TOP PROVIDERS OF DISTANCE EDUCATION COURSES IN NEW JERSEY •

* Because of the unique delivery of online courses, students who repeat a course are strongly advised against taking that course online. Certain online courses may require proctored exams or chat room attendance on specific days and times.

DENTAL ASSISTING

CERTIFICATE

The dental assistant is a valuable member of the dental health care team. The scope of the dental assistant's responsibilities is determined by educational preparation, type of practice, and the laws of the state in which one is employed. The dental assistant works at the chairside with the dentist. Chairside duties include receiving and preparing the patient for treatment; sterilizing and selecting instruments; assembling materials and equipment; organizing the work area; maintaining the operative field; exposing, processing, and mounting dental radiographs; and providing instructions in oral hygiene and nutritional counseling. Other responsibilities include office management and the performance of basic laboratory procedures. The dental assistant schedules appointments, maintains patient records and financial accounts, answers the telephone, prepares insurance forms, collects payments, orders supplies and maintains an inventory of same. Basic laboratory tasks such as pouring impressions, trimming study models, fabricating custom trays, and preparing base plates and bite rims are also provided by the dental assistant.

The New Jersey Dental Auxiliaries Act of 1979 provides for the extension of the functions normally performed by dental assistants. The rules and regulations for this legislation outline specific tasks which may be assigned to dental assistants possessing state "registration in expanded functions." The teaching of expanded functions is an integral component of the UMDNJ-UCC curriculum.

By virtue of an agreement between Union County College and the **School of Health Related Professions (SHRP) of the University of Medicine and Dentistry of New Jersey (UMDNJ)** a certificate in dental assisting is conferred upon successful program graduates.

A high school diploma or its recognized equivalency with a minimum of a 2.0 cumulative grade-point average is required for admission into the program. In addition, scores from the College Placement Test must be forwarded for review. Those persons who lack certain basic skills will have to complete the indicated Remedial courses and demonstrate competence in all basic skills before beginning the program in January. In addition, an allied health entrance examination will be administered to each candidate as part of admission requirements.

The program is approved by the New Jersey Department of Higher Education and accredited by the Council on Dental Accreditation of the American Dental Association, the specialized accrediting agency recognized by the Council on Postsecondary Accreditation and the U.S. Department of Education.

Inextricably related to SHRP's overall mission, the mission of the UMDNJ-SHRP's Department of Allied Dental Education is to promote professional standards of excellence and leadership among its students and health professionals while meeting the health care needs of New Jersey residents through patient care, education, research, and service. The Department's unique and innovative curriculum reflects the direction of allied dental practice and often presages the evolution of the profession. The Department seeks to develop new and innovative approaches to education while keeping pace with current treatment modalities and research strategies. The students develop a humanistic approach to health care delivery as well as critical thinking, problem-solving, independent decision making, and research skills which characterize the professional.

The Department strives to instill in its students and members of the allied dental professions, a dedication to lifelong learning, and provides opportunities for continued growth within the health professions.



Upon successful completion of all program requirements, graduates will be able to:

- Exhibit competency as clinicians through demonstrated performance on the Certified Dental Assistants Examination (CDA) administered by the Dental Assisting National Board and feedback from Employer Surveys;
- Assume responsibility for health promotion and disease prevention for individuals and communities through participation in multiple dental health education projects;
- Perform multiple, advanced level dental auxiliary functions as defined in the New Jersey State Dental Practice Act under the auspices of Clinical Assisting and Internship;
- Obtain the Registered Dental Assistant credential issued by the State Board of Dentistry of New Jersey;
- Demonstrate professional development through membership in the American Dental Assistants' Association and participation in related activities;
- Display professionalism in the delivery of comprehensive dental health care through achievement of satisfactory grades in the section of the evaluation form for Clinical Assisting and Internship;
- Prepare individuals for employment as dental assistants;
- Determine student satisfaction with educational programming.

AFTER UNION COUNTY COLLEGE

Graduates are strongly encouraged to take the Certified Dental Assistant Examination (CDA) in order to qualify for the Registered Dental Assistant (RDA) credential available through the State Board of Dentistry of New Jersey.

DENTAL ASSISTING

CERTIFICATE cont'd

THREE OF THE GENERAL EDUCATION REQUIREMENTS MUST BE COMPLETED BEFORE ENTERING THE PROFESSIONAL PHASE OF THE PROGRAM

based on satisfaction of all Basic Skills requirements and prerequisites:

COURSE#	COURSE	LEC.	LAB	CR.
ENG 101	English Comp I+	3	1	3
PSY 101	General Psychology+	3		3
BIO 105	Anatomy and Physiology 1	3	3	4
				10

+ Must be completed with a minimum grade of C prior to the start of dental course work in January

RECOMMENDED SEQUENCE

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ADEC 1110	Dental Head & Neck Anatomy (Core Course)	3		3
ADEC 1209	Intro to the Dental Profession (Core Course)	3	2	4
ADEC 1240	Medical Emergencies in the Dental Office (Core Course)	1	1	1
ADEC 1250	Dental Materials (Core Course)	2	3	3
ADEC 1269	Dental Specialties (Core Course)	1	1	1
				12
SPRING SEMESTER				
ADEC 2460	Practice Management (Core Course)	1		1
DENA 1232	Dental Science	2		2
ADEC 1219	Dental Radiology (Core Course)	2	3	3
ADEC 1205	Dental Health Education (Core Course)	1		1
DENA 1279	Clinical Assisting*		12	3
DENA 1309	Internship*		8	1
				11
Total Program Credits:				33

*A total of 300 combined clinical hours must be completed through the internship and clinical assisting courses.

- Students register for the professional phase courses through UMDNJ and pay the UMDNJ undergraduate tuition rate and fees.
- The nature of the courses may require students to act as dental service providers and patients with fellow students.
- Students are required to attend classes on multiple campuses.
- Some courses may be Web-based. Students must have computers and Internet access.
- Please note that the State Board of Dentistry of New Jersey conducts criminal background checks on all applicants.
- Graduates will sit for the Ethics and Jurisprudence examination administered by the New Jersey State Board of Dentistry

DENTAL ASSISTING ADMISSION INFORMATION:

Dental Assisting applicants may apply directly to SHRP Office of Enrollment Services for Admission to the Program. The application deadline is April 1, annually. Applications must be submitted to one of the affiliate Schools of choice.

Instructions on applying to the program can be obtained by going to the Enrollment Services section of the SHRP website (<http://shrp.umdj.edu>).

The following courses must be completed with a grade of C or above by the start of the dental profession phase of the Program, in January:

- A&P 1 (4 credits with lab) must be completed by January.
- English I, (3 credits), Psychology I (3 credits) must be completed by graduation.

A high school diploma or its recognized equivalency with a minimum of a 2.0 cumulative grade-point average (GPA) is required for admission into the program. Applicants are rank ordered according to GPA. All basic skills requirements must have been completed prior to entry into the program. Those persons who lack certain basic skills will have to complete the indicated remedial courses and demonstrate competence in all basic skills **PRIOR** to beginning the Program in January. In addition, scores from the New Jersey College Basic Skills Placement Test must be forwarded for review.

Official transcripts must be submitted to document successful completion of required coursework. "Candidates must also take the written pre-qualifying Allied Health Examination developed by Keystone Professional Testing, LLC" at the affiliate college.

Test of English Foreign Language Examination (TOEFL): To insure that persons admitted to the Dental Assisting Program are sufficiently fluent in the English language to facilitate learning at the college level, a foreign applicant must score a minimum of **550 (written) and 79/80 (Internet)** on the Test of English as a Foreign Language (TOEFL).

DENTAL HYGIENE

ASSOCIATE IN APPLIED SCIENCE DEGREE

By virtue of an agreement between Union County College and the School of Health-Related Professions (SHRP) of the University of Medicine and Dentistry of New Jersey (UMDNJ), an A.A.S. degree in Dental Hygiene is conferred jointly by these two institutions. The general education courses are taught by Union County College and the professional courses are taught by the Department of Allied Dental Education, SHRP-UMDNJ at the Scotch Plains and Newark campuses. All students will be attending both Scotch Plains and Newark campuses. Enrollment is limited and admission to this program is competitive. Completion of this program entitles the student to sit for the National and Northeast Regional Board Examination for Dental Hygiene.

The program is accredited by the American Dental Association's Commission on Dental Accreditation.

A dental hygienist, under the supervision of a dentist, removes deposits from the teeth, applies agents which make teeth more resistant to decay, instructs groups and individuals in the proper care of teeth and surrounding tissues, charts disease and decay conditions for diagnosis and preventive treatment by the dentist, and performs patient services delegated by the dentist.

The dental hygienist must possess manual dexterity, good vision, and good health and oral hygiene habits.

Admission is limited. For admission information, contact the Union County College Admissions or Recruitment Office. Application deadline – April 1 dental classes begin January of each year.



Inextricably related to SHRP's overall mission, the mission of the SHRP-Umont Department of Allied Dental Education is to promote professional standards of excellence and leadership among its students and health professionals while meeting the health care needs of New Jersey residents through patient care, education, research, and service.

The Department's unique and innovative curriculum reflects the direction of allied dental practice and often presages the evolution of the profession. The Department seeks to develop new and innovative approaches to education while keeping pace with current treatment modalities and research strategies. The students develop a humanistic approach to health care delivery as well as critical thinking, problem-solving, independent decision making, and research skills which characterize the professional.

The Department strives to instill in its students and its members of the allied dental professions a dedication to lifelong learning and provides opportunities for continued growth within the health professions.

Upon successful completion of all program requirements, graduates will be able to:

- Exhibit competency as clinicians through demonstrated performance on the Northeast Regional Board Dental Hygiene Examination and the National Board Examination and feedback from Employer Surveys;
- Assume responsibility for health promotion and disease prevention for individuals and communities through participation in multiple dental health education projects;
- Perform multiple, advanced level dental auxiliary functions as defined in the New Jersey State Dental Practice Act under the auspices of Dental Specialties II;

- Obtain the RDH license;
- Demonstrate professional development through membership in the Student American Dental Hygienists' Association and participation in related activities;
- Display professionalism in the delivery of comprehensive dental health care through achievement of satisfactory grades in this section of the evaluation form for Clinical Services I, II, and III;
- Prepare individuals for employment as dental hygienists;
- Determine student satisfaction with educational programming;
- Assess patient satisfaction with treatment service provided by students through data collection from the patient satisfaction survey.

AFTER UNION COUNTY COLLEGE

Graduates will sit for the National Board Dental Hygiene Examination, Northeast Regional Board Examination for Dental Hygiene, and the Ethics and Jurisprudence examination administered by the New Jersey State Board of Dentistry.

Students register for the professional phase courses at UMDNJ and pay the UMDNJ undergraduate tuition rate and fees.

The nature of the courses may require students to act as dental service providers and patients with fellow students.

Please note that the State Board of Dentistry of New Jersey conducts criminal background checks on all applicants.

Graduation from the program does not assure that the Board will issue a license.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

PRE-ADMISSION REQUIREMENTS

COURSE#	COURSE	LEC.	LAB	CR.
**PRE-ADMISSION REQUIREMENTS				
BIO 105	Anatomy & Physiology I	3	3	4
BIO 106	Anatomy & Physiology II	3	3	4
BIO 108	Microbiology	3	3	4
CHE 105	Chemistry-Health Sciences	3	3	4
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology I	3		3

22

**** MUST BE COMPLETED PRIOR TO APPLICATION TO THE PROGRAM MINIMUM 2.75 GPA**

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ADEC 1110	Dental Head & Neck Anatomy	3		3
ADEC 1209	Intro to Dental Professions	3	2	4
DENH 1109	Intro to Clinical Dental Hygiene	3	8	4
ADEC 1250	Dental Materials	2	3	3
ADEC 1240	Medical Emergencies	1	1	1
				15
SPRING SEMESTER				
ADEC 1205	Dental Health Education	1		1
ADEC 1219	Dental Radiology	2	3	3
DENH 1231	Clinical Dental Hygiene I	3		3
DENH 1249	Clinical Services I	1	12	3
DENH 1280	Oral Embryology & Histology	2		2
				12

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
DENH 1220	Nutrition	2		2
DENH 2300	Oral Pathology	2		2
DENH 2310	Dental Health Ed/Community Dent. Health	2		2
DENH 2320	Pharmacology & Oral Medicine			1
DENH 2321	Periodontology I	2		2
DENH 2332	Clinical Dental Hygiene II	2		2
DENH 2349	Clinical Services II	1	12	3
ADEC 1269	Dental Specialties I	1	1	1
				15
SPRING SEMESTER				
ADEC 2460	Practice Management	1		1
DENH 2459	Dental Specialties II		3	1
DENH 2410	Capstone Seminar	2		2
DENH 2422	Periodontology II	2		2
DENH 2449	Clinical Services III	1	12	3
DENH 2453	Pain Control			1
				10

GENERAL EDUCATION REQUIREMENTS - THESE COURSES MUST BE COMPLETED BEFORE ENTERING THE PROFESSIONAL PHASE OF THE PROGRAM IN JANUARY

SOC 101	Principles of Sociology			3
ENG 102	English Comp II			3
ENG 129	Public Speaking			3
MAT 119	Algebra			4
				13

Total Program Credits: 65

DENTAL HYGIENE

ASSOCIATE IN APPLIED SCIENCE DEGREE *continued*

DENTAL HYGIENE ADMISSION INFORMATION:

A high school diploma or its recognized equivalency with a minimum of a 2.0 cumulative grade-point average (GPA) and completion of six college level prerequisite courses with a minimum cumulative GPA of 2.75 is required for admission into the program. All basic skills requirements must have been completed **PRIOR** to entry into the program. Those persons who lack certain basic skills will have to complete the indicated remedial courses and demonstrate competence in all basic skills before beginning the program in January.

Applications to the Dental Hygiene Program must first be admitted to one of the following affiliate Schools designating the dental hygiene program as their chosen program of study: **Application deadline is April 1, annually.**

Candidates are rank-ordered according to GPA in the prerequisite courses below. Performance in additional college level course work and dental work experience are considered although not required.

The following college level courses must be competed with a minimum grade point average (GPA) of 2.75 (C+) or above:

Prerequisite Courses	Credits
English Composition I	3
Anatomy & Physiology I	4
Anatomy & Physiology II	4
College Chemistry I	4
General Psychology I	3
Microbiology	4

*** Thomas Edison State College applicants MUST apply through SHRP Office of Enrollment Services (973) 972-5454.**

Test of English Foreign Language Examination (TOEFL): To insure that persons admitted to the Dental Hygiene Program are sufficiently fluent in the English language to facilitate learning at the college level, a foreign applicant must score a minimum of **550 (written) and 79/80 (Internet)** on the Test of English as a Foreign Language (TOEFL).

DRAMA/FINE ARTS

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The drama option will include the study of European and modern theater as both "text" and "event", with reading, improvisation, field trips, playwrights, and directing used as techniques in the learning process. Students will also develop voice, body, and imagination through the art of acting and will put those skills to use in all forms of dramatic presentations.

See paragraph "Qualifications for Admission to Degree Program" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively both orally and in writing.
- Use technology for learning and research.
- Analyze the history and elements of drama and theater acting.
- Perform effectively as an actor in a specified scene.
- Apply critical thinking and problem-solving skills to situations involving theater.



AFTER UNION COUNTY COLLEGE

Graduates from this program can transfer to a 4-year institution. Students receive an immersion in this demanding art, as well as a solid liberal arts base for transfer.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
FIA 207	Introduction to Acting	3		3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT 119	Algebra	4		4
				16

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
FIA 205	Introduction to Drama	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
Laboratory Science		3	1	4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG	200-Level Literature course	3		3
FIA 208	Fundamentals of Acting	3		3
GOV 202	American National Govt	3		3
PSY 101	General Psychology	3		3
MAT 127	Elementary Statistics			OR
Laboratory Science		3	3	4
				16

SPRING SEMESTER				
ENG 128	Dynamics of Communication			OR
ENG 129	Public Speaking	3		3
FIA 206	Fundamentals of Drama	3		3
GOV 201	American Govt. & Politics			OR
PHI 205	Intro to Philosophy	3		3
PSY 102	Psychology of Personality	3		3
FIA	Elective *	3		3
FIA	Diversity Course**	3		3
				18

Total Program Credits: 66

* Students can take a Fine Arts Course elective in Dance, Music, Graphic Design, Illustration, Photography, or Visual Arts to fulfill the Fine Arts Course requirements.

** Students can take FIA 105, FIA 108, FIA 111 or FIA 117



Are you great with numbers?

Do numbers rule your universe?
Turn to page 99 to learn about UNION County College's Associate in Science degree in Mathematics.

EARLY CHILDHOOD ELEMENTARY EDUCATION

SUGGESTED GRADES PRE-K-3 Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

For students who wish to prepare themselves for an Associate degree or wish to transfer and earn a baccalaureate degree in Early Childhood Education or Elementary Education.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).



Upon successful completion of all program requirements, graduates will be able to:

- Apply knowledge of psychological concepts to the learning behavior of children from Pre-K to Grade 3.
- Analyze the characteristics of effective teaching behaviors and "best practices" in the teaching profession.
- Describe the organization and funding of school systems.
- Describe the roles of teachers, students, parents, administrators, and teacher associations in the U.S.
- Communicate effectively orally and in writing.
- Demonstrate the skills and motivation for continued self-education.

AFTER UNION COUNTY COLLEGE

Graduates of this program will transfer to a four-year college or university for a baccalaureate degree to work with students in early childhood education.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
Elective	Laboratory Science	3	3	4
MAT 119	Algebra (or higher)	4		4
PSY 101	General Psychology	3		3
SOC 101	Principles of Sociology	3		3
				17

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
Elective	Laboratory Science	3	3	4
PSY 205	Child Psychology	3		3
SOC 102	Social Problems	3		3
Elective	FIA OR ENG*	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
PSY 211	Current Issues in Psychology	3		3
ENG 128	Dynamics of Communication	3		3
Elective	PSY, SOC, OR EDU+	3		3
EDU 205	Educational Psychology	3		3
EDU 215	Field Work in Education**	3		3
HIS	2-semester sequence++	3		3
				18

SPRING SEMESTER				
PED 107	Decisions for Wellness	3		3
CIS 111	Integrating Technology in the Curriculum	2	2	3
GEO 201	World Geography			3
HIS	2-semester sequence++			3
Electives	HIS 105, 106, SOC 206 OR SPA (choose one)	3		3
				15

Total Program Credits: 66

++HIS 101 & 102 OR HIS 201 & 202

**EDU 215 must be taken after EDU 205 or concurrently with EDU 205.

***CHOOSE ONE FROM:**

FIA 104 Basic Design
 FIA 107 Intro to Dance
 FIA 109 Drawing I
 FIA 110 Painting I
 FIA 205 Intro to Drama
 ENG 200-Level Literature

+CHOOSE ONE FROM:

PSY 102 Psychology of Personality
 PSY 206 Adolescent Psychology
 PSY 210 Human Sexuality
 SOC 273 Marriage and Family
 EDU 270 Topics in Education

Teacher Education majors must periodically consult with the Coordinator of Teacher Education to review the latest federal and state requirements for Teacher Certification (Teacher License).

EDUCATION

SUGGESTED GRADES 4-12 Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

For students who wish to prepare themselves for an Associate degree or wish to transfer and earn a baccalaureate degree in Education.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Apply knowledge of psychological concepts to the learning behavior of children and adolescents.
- Analyze characteristics of effective teaching behaviors and "best practices" in the teaching profession.
- Analyze the organization and funding of school systems.
- Describe the roles of teachers, students, parents, administrators, and teacher associations in the U.S.
- Effectively communicate orally and in writing.
- Demonstrate the skills and motivation for continued self-education.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
Elective	Laboratory Science	3	3	4
MAT 119	Algebra	4		4
HIS 201	U.S. History To 1865	3		3
PSY 101	General Psychology	3		3
				17

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
HIS 202	U.S. History Since 1865	3		3
Elective	Laboratory Science	3	3	4
SOC 101	Principles of Sociology	3		3
MAT 126	Mathematics for Management & Social Sciences (or Higher)	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
EDU 205	Educational Psychology	3		3
Elective	FIA OR ENG OR PHI*	3		3
HIS 101	Intro to Western Civilization I	3		3
PSY 206	Adolescent Psychology	3		3
PSY 211	Current Issues in Psychology	3		3
				15

SPRING SEMESTER				
EDU 215	Field Work in Education**	3		3
ENG 128	Dynamics of Communication	3		3
HIS 102	Intro to Western Civilization II	3		3
Elective	HIS 105 OR 106 OR SOC 206 OR SPA (choose one)	3		3
Diversity Elective	any accepted PSY/SOC course+	3		3
Elective	FIA OR ENG OR PHI*	3		3
				18

Total Program Credits: 66

***Choose one from:**

FIA 104 Basic Design
FIA 107 Intro to Dance
FIA 109 Drawing I
FIA 110 Painting I
FIA 205 Intro to Drama
ENG 200-Level Literature

+Choose one from:

PSY 102 Psychology of Personality
PSY 206 Adolescent Psychology
PSY 210 Human Sexuality
SOC273 Marriage and Family

**EDU 205 must be taken before or concurrently with EDU 215.

Teacher Education majors must periodically consult with the Coordinator of Teacher Education to review the latest federal and state requirements for Teacher Certification (Teacher License).

AFTER UNION COUNTY COLLEGE

Graduates of this program will transfer to a four-year college or university for a baccalaureate degree to work with students in grades 4-12.

Is a 4-year degree in your future?

An Associate of Arts (A.A.) or Associate of Science (A.S.) degree from Union County College is fully transferable as the first two years of a baccalaureate degree program at any New Jersey public four-year institution under the Comprehensive State-Wide Transfer Agreement.

EDUCATIONAL INTERPRETER PROGRAM (EIP)

American Sign Language – English Interpreters in the Pre-K to 12th Grade Academic Setting CERTIFICATE

The Department of Education, New Jersey Administrative Code 6A:9-13.18 Educational Interpreters requires Sign Language/English Interpreters in the Pre-K to 12th grade academic setting to have a “Standard Educational Services Certificate with a sign language interpreting endorsement” through the state of New Jersey. To receive this endorsement educational interpreters are required to take the Educational Interpreter Performance Test (EIPA) and pass with a 3.0 or higher along with a 15 semester hour sequence of academic coursework. For further information go to www.ucc.edu/go/eipdc



Increased numbers of Deaf and Hard of Hearing children are mainstreamed in the public school system, which means there are an increased number of educational interpreters in demand.

The EIP courses provide students with knowledge regarding their unique role and responsibilities as educational interpreters and their role as a member of the education team in the various interpreter assignments within multiple educational settings.

Prerequisite: Approval of Coordinator of ASL-English Interpreting Program or Educational Interpreter Professional Development Center (EIPDC) Coordinator and official transcript review by the EIPDC office prior to registration.

Upon successful completion of all program requirements, graduates will be able to:

- Develop a personal philosophy of education from the perspective of the Educational Interpreter.
- Discuss characteristics of the New Jersey Core Curriculum Content Standards.

- Identify and define characteristics of a curriculum including instructional.
- Outline historical and current trends of childhood language development.
- Relate strategies and techniques for facilitating English language development in Deaf children including, but not limited to alternative forms of communication, bilingual/bicultural issues, assertive technology, sign support, and oral/auditory philosophies.
- Compare and discuss the different philosophies of child development; (i.e. Freud’s psychoanalytic or Freudian theory, Erikson’s Eight Stages of Human Development, Piaget’s Stages of Cognitive Development and Adolescent Development, source information taken from the American Academy of Child Psychiatry materials and how they apply to children who are deaf, hard of hearing, and deaf-blind.
- Differentiate the interaction of physical, cognitive, emotional, linguistic, social and cultural factors within developmental stages and how they affect children with specialized needs and deaf, hard of hearing, and deaf-blind children.
- Complete a comparison of the development of children without specialized needs with the development and issues facing children and families with specialized needs.
- Discuss how different paradigms within the profession of sign language interpreting impact on the application and interpretation of ethical standards and behavior.
- Discuss the various disability laws and how they apply to deaf and hard of hearing children pre-k to 12. (PL 89-333 Vocational Rehabilitation Act of 1965, PL 93-112 Rehabilitation Act of 1973, Section 501, Section 503, Section 504 recipients of federal assistance, PL94-142 Education for all Handicapped Children Act, Americans With Disabilities Act, IDEA, No Child Left Behind).
- Develop understanding and apply knowledge of the N.J. Administrative Code in daily work in the Pre-K to 12 academic setting.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

CERTIFICATE COURSES

COURSE#	COURSE	LEC.	LAB	Cr.
SPRING SEMESTER				
EIP 201	Methods– Teaching and Curriculum for Educational Interpreters	3		3
EIP 203	Child Development for Educational Interpreters	3		3
EIP 204	Ethics and Laws for Educational Interpreters	3		3
				9
FALL SEMESTER				
EIP 202	Language Development for the Educational Interpreter	3		3
EIP 207	Disability Laws for Educational Interpreters Prerequisite:HUD 110	1		1
DBI 210	Deaf-Blind Interpreting and Interpreting Strategies	3		3
				7
Total Program Credits:				16

AFTER UNION COUNTY COLLEGE

Graduates may apply for the “Standard Educational Services Certificate with a sign language interpreting endorsement” through the state of New Jersey (Licensure) along with Educational Interpreting Performance Assessment (EIPA) score of 3.0 or higher. These graduates will work in the academic setting, Pre-K to 12 grades.

Enter **Union** as a freshman, and then



Exit



as a **Junior** to over **50 Colleges & Universities**

UNION COUNTY COLLEGE has dual admissions or transfer agreements with prestigious colleges and universities throughout the United

States. Our agreements have been carefully structured to ensure qualified graduates admission as Juniors to over fifty four-year institutions.



Cranford • Elizabeth
Plainfield • Scotch Plains

As tuition at 4-year colleges continues to rise, consider the economic advantage of spending your first two years at Union County College without sacrificing time or educational quality in your pursuit of a Bachelor's Degree.

- ▲ Over 75 challenging programs of study
- ▲ Distinguished faculty
- ▲ Convenient local campuses
- ▲ Up-to-date technology
- ▲ Small class size
- ▲ Financial assistance

For information call 908-709-7518 – or – visit us online at www.ucc.edu

ELECTRONICS/ ELECTROMECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

FOR ELECTRICAL ENGINEERING SEE "ENGINEERING" ON PAGE 84



Electronics/Electromechanical Engineering Technology students are prepared in the skills and understanding necessary to install and service equipment which combines electronic, electrical and mechanical components. Special emphasis is placed on computers, computer peripherals, robotics, automated manufacturing systems, fiber optic systems, and the operation of digital computers in automatic control systems. Considerable portions of the allotted laboratory hours are devoted to learning and practicing troubleshooting, repair, and maintenance procedures of electromechanical and electronic equipment.

See paragraph on "Qualifications for Admission to Degree Programs" or desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Analyze, predict the behavior of, and synthesize electromechanical, electrical and electronic systems and subsystems with minimal supervision.
- Develop strategies and implementations for the installation, maintenance, repair, and operation of computers and computer peripherals; control systems; test, measurement, and instrumentation equipment; electromechanical assemblies and subassemblies.
- Interpret technical concepts to a non-technical audience.
- Participate in a team project both as a leader and as a member.
- Evaluate, review, and interpret technical documents related to current technical advances and innovations.
- Analyze and interpret both technical and non-technical concepts orally and in written and electronic formats.
- Describe the community, societal, and ethical responsibilities and obligations associated with being awarded a college degree.

AFTER UNION COUNTY COLLEGE

Graduates have the option of entering a Bachelor of Science in Technology program or accepting positions as field service representatives or laboratory technicians with firms in the computer and electronic fields.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CSC 115	Intro to Computer Programming	2	2	3
EET 101	Principles of DC Circuits	3	3	4
MET 109	Computer-Aided Drafting	2	3	3
ENG 101	English Comp I	3	1	3
MAT 143	Elementary Mathematical Analysis I	4		4
				17

SPRING SEMESTER				
EET 102	Principles of AC Circuits	2	3	3
EET 111	Digital Computer Fundamentals	3	3	4
ENG 122	Introductory Technical & Business Writing	3	1	3
MAT 144	Elementary Mathematical Analysis II	4		4
PHY 101	General Physics I	3		3
PHYL 101	General Physics I Laboratory		3	1
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
EET 211	Computer Systems/ Microprocessors	3	3	4
EET 213	Semiconductor Devices	4	3	5
PHY 102	General Physics II	3		3
PHYL 102	General Physics II Laboratory		3	1
Elective	Humanities			3
				16

SPRING SEMESTER				
EET 204	Electromechanical Devices & Systems/ Robotics	3	3	4
EET 265	Fiber Optic Communication Systems	3	3	4
Elective	Technical*			3
Elective	Social Science			3
				14

Total Program Credits: 65

*MAT 171 recommended for students transferring

ENGINEERING

AEROSPACE, BIOMEDICAL, CHEMICAL, CIVIL, COMPUTER, ELECTRICAL, ENVIRONMENTAL, GEOSCIENCE, INDUSTRIAL AND MECHANICAL

Professor Elmer Wolf Engineering Program ASSOCIATE IN SCIENCE DEGREE

The Engineering program offers the first two years of a four-year engineering curriculum and prepares graduates for transfer to bachelor's degree programs at leading engineering colleges throughout the country. The first two years are common to most fields of engineering (e.g., civil, electrical, and mechanical), but in the second year some students may begin to specialize in a field of their choice (e.g., chemical engineering).

Union County College has dual admissions and formal transfer agreements with New Jersey Institute of Technology, Rutgers University, and other colleges. Due to the diversity of engineering curricula in certain fields of specialization, it is sometimes necessary for graduates to take one or two additional courses before attaining junior status at the transferring college.

Applicants for the engineering program must present two years of algebra and one year of geometry, trigonometry, chemistry, and physics, as high school entrance credits. Students deficient in any of these subjects must take the appropriate preparatory courses. All engineering candidates are required to take a mathematics and a physics placement test; students who are not placed in MAT 171 will not take PHY 111 and will be limited to a maximum of 15 credit hours during the first semester.

Upon successful completion of all program requirements, graduates will be able to:

- Employ critical thinking and problem solving skills in the solution of technical problems.
- Employ computer software applications in the solving and presentation of technical problems.
- Interpret and produce engineering drawings using computer-aided drafting (CAD) skills and principles of engineering graphics.
- Analyze problems of a technical nature and design computer based solutions.
- Interpret and perform laboratory procedures and measurements.
- Analyze and assess the validity of experimental data.
- Manage a team project both as a leader and as a member.
- Express and interpret both technical and non-technical concepts orally, in writing and in electronic formats.

AFTER UNION COUNTY COLLEGE

Graduates are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites. SEE COURSE PREREQUISITES FOR MAT171, EGG105, AND CSC101.

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CHE 111	General Chemistry I	3	3	4
EGG 111	Engineering & Computer Graphics	1	3	2
ENG 101	English Comp I	3	1	3
MAT 171	Unified Calculus I	4		4
EGG 105	Intro to Fundamentals of Engineering	3		3
				16

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
Elective	See Note #1	3		3
MAT 172	Unified Calculus II	4		4
PHY 111	Mechanics	3		3
PHYL 111	Mechanics Laboratory		3	1
CSC 101	Computer Algorithms	2	3	3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
Elective	Technical (See Note #2)			3
MAT 271	Unified Calculus III	4		4
PHY 201	Electricity & Magnetism	3		3
PHYL 201	Electricity & Magnetism Laboratory		3	1
HIS 101	Intro to Western Civilization I or			
HIS 102	Intro to Western Civilization II	3		3
				14

SPRING SEMESTER				
Elective	Technical (See Note #3)			4
MAT 272	Differential Equations	4		4
ECO 201	Principles of Economics I or			
ECO 202	Principles of Economics II	3		3
Elective	Humanities	3		3
Elective	See Note #4	3		3
				17

Total Program Credits: 64

Please consult with Engineering faculty for transferability of courses to specific 4-year institutions.

NOTE #1: PSY 101 or SOC 101 recommended in this time slot for students who intend to major in Computer and Electrical Engineering; CHE 112/CHEL 112 recommended for all other engineering students.

NOTE #2: CHE 211/CHEL 211 recommended for Chemical Engineering students. MAT 265 recommended for Computer and Electrical Engineering students. EGG 201 recommended for all other Engineering students.

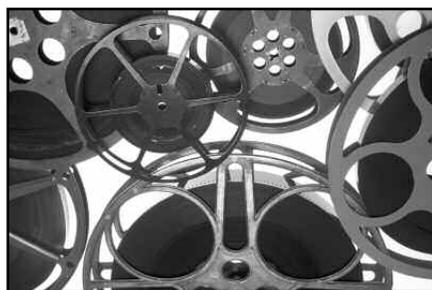
NOTE #3: CHE 212/CHEL 212 recommended for Chemical Engineering students. EGG 207/EGGL 207 recommended for Computer and Electrical engineering students. EGG 202 recommended for all other Engineering students.

NOTE #4: EGG 251 recommended for students in Computer and Electrical Engineering. PSY 101 or SOC 101 recommended for all other Engineering students.

FILM

Option offered through Communications ASSOCIATE IN ARTS DEGREE

This program is designed for transfer to a bachelor's degree-granting institution. Course work includes film theory and criticism. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.



Other Communications Degrees Include:

- Audio Production
- Communications
- Game Design Creation
- Journalism
- Multimedia
- Public Relations
- Radio
- Television

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse
- Discuss and analyze current social and political issues and events
- Demonstrate proficiency with productivity software such as word processing, presentation manager, web browser and apply them in the field of communications
- Explain the importance of committing to a process of life-long learning
- Evaluate prevalent cultural narratives and texts and the various media used to convey them
- Demonstrate an understanding of the evolution of film as a medium as well as the formal and thematic developments that constitute its history
- Apply classroom learning to the creation of student video projects

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a bachelor's degree granting institution to major in **Film, Journalism, Arts or any other Art/Humanities/Sciences program.**

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 100	Communications Technologies	3	2	4
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology	3		3
MAT	Any 4 credit Mathematics course	4		4
				17
SPRING SEMESTER				
COM 109	Intro to Film Study	3		3
ENG 102	English Comp II	3	1	3
	Any Laboratory Science	3	3	4
ENG 128	The Dynamics of Communication OR			
ENG 129	Public Speaking	3		3
Elective	Social Science	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 209	Evolution of Film	3		3
ENG	200-Level	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt. & Politics	3		3
	Any Communications Course	3		3
Elective	Social Science/ Humanities	3		3
				18
SPRING SEMESTER				
COM 216	Digital Video Editing & Multimedia Imaging	3		3
ENG	200-Level	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt	3		3
Elective	Humanities	3		3
				15
Total Program Credits:				66



Matriculated Means...?

A matriculated student enrolls in the college to pursue study towards a specific degree. To be eligible for financial aid, students **MUST** be in a degree program, in other words, they must be matriculated. A non-matriculated student has not entered a degree program but is enrolled in courses.

FIRE SCIENCE TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

Fire Science Technology is a two-year Associate degree program.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Read and interpret building blueprints and codes.
- Demonstrate knowledge of fire prevention including fire detection and its causes, fire prevention systems and building codes.
- Apply problem-solving skills to specific fire ground situations.
- Analyze fire fighting strategies, techniques and procedures involved with incident command.



- Demonstrate an understanding of the organization and management of fire departments
- Analyze the ethical implications of fire department state policies and individual practices.
- Demonstrate the ability to use technology related to fire science.
- Communicate effectively in writing, verbal and electronic formats

AFTER UNION COUNTY COLLEGE

Graduates with this degree will have the basic knowledge necessary to begin a challenging career in fire protection.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
FST 103	Fire Protection	3		3
MAT 117	Intro to Mathematical Ideas	3		3
PSY 101	General Psychology	3		3
SOC 101	Principles of Sociology	3		3
				15

SPRING SEMESTER

CHE 106	Consumer & Environmental Chemistry	3	3	4
ENG 122	Introductory Tech & Business Writing	3	1	3
FST 102	Building Construction	3		3
FST 105	Fire Prevention	3		3
FST 106	Fire Fighting Tactics	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
FST 107	Hazardous Materials	3		3
FST 109	Fire Protection Systems	3		3
FST 113	Fire Department Organization & Management	3		3
FST 218	Fireground Strategies & Concepts	3		3
Elective	Humanities			3
				15

SPRING SEMESTER

CIS 100	Intro to Computer Applications	2	2	3
FST 108	Fire Hydraulics	3		3
FST 111	Fire Causes & Detection	3		3
FST 119	Incident Command	3		3
GOV 204	Public Administration	3		3
Elective	Fire Science			3
				18

Total Program Credits: 64

Graduates of the Union County Fire Academy will be granted 6 credits of advanced standing when they matriculate in the program.

Fire Science electives are to be selected from the following:

EMT 102, FST 112, FST 115

GAME DESIGN CREATION

ASSOCIATE IN APPLIED SCIENCE DEGREE

This program introduces students to the skills and knowledge required to compete for entry-level positions in the fastest growing segment of the media field – the video game industry. Course work includes the fundamentals of game design, the elements of storytelling for digital media, graphic design, creative writing, digital video editing and multimedia content creation. Through the selection of elective tracks, students can focus their studies on animation, illustration, film and video or photography. Students are required to work with their faculty advisor regarding appropriate track options and course selection suitable to their needs and interests.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse
- State the importance of committing to a process of life-long learning
- Identify the fundamental process and sequence involved in the design of games
- Describe the different roles and responsibilities of the game design team members
- Relate the historical development of storytelling
- Employ the elements of good storytelling
- Demonstrate the essential skills of multimedia development, graphic arts design and video editing for gaming applications
- Discuss the elements of game logic, game balance and the importance of challenge and reward milestones.



Other Communications Degrees Include:

- Audio Production
- Communications
- Film
- Journalism
- Multimedia
- Public Relations
- Radio
- Television

AFTER UNION COUNTY COLLEGE

Graduates can work in the field of Game Design or continue study at a bachelor's granting institution.

Do you need a flexible schedule?
Take a weekend or evening class to fit learning into your busy life. Or, consider an online course to help you reach your goals!

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
CSC 100	Computer Programming Fundamentals	2	2	3
COM 105	Storytelling for Digital Media	2	2	3
ENG 101	English Comp I	3	1	3
FIA 104	Basic Design	3		3
GDP 101	Fundamentals of Game Design	3		3
MAT 119	Algebra (or higher)	4		4

19

SPRING SEMESTER

FIA 202	Graphic Design I	3		3
GDP 110	Game Design & Development I	3		3
GDP 115	The Business of Game Design	3		3
COM 109	Intro to Film Study	3		3
	Track Elective			3

15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 102	English Comp II	3	1	3
MAT 125	Survey of Special Topics in Mathematics	3		3
PHY 125	Elements of Physics	3		3
PHYL 125	Elements of Physics Laboratory		2	1
COM 112	Multimedia Development I	3		3
	Track Elective			3

16

SPRING SEMESTER

COM 209	Evolution of Film	3		3
FIA 204	Graphic Design II	3		3
COM 212	Multimedia Development II	3		3
COM 216	Digital Video Editing & Multimed. Imaging	3		3
	Track Elective			3

15

Total Program Credits: 65

TRACK ELECTIVES: Students can choose three electives by selecting one of the sequences below- (All courses are three credits)

ANIMATION TRACK

- GDP 201 Principles of Animation
- GDP 210 Game Design and Development
- GDP 215 3D Game Programming

ILLUSTRATION TRACK

- FIA 109 Drawing I
- FIA 209 Illustration I
- FIA 210 Illustration II

FILM AND VIDEO TRACK

- COM106 Intro to Television: Production & Theory
- COM 206 Television Field Production
- COM 214 Communications Practicum
- ENG 215 Creative Writing

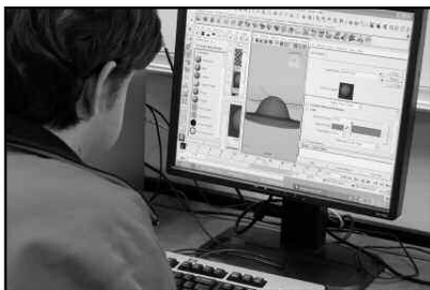
PHOTOGRAPHY TRACK

- FIA 221 Black and White Photography I
- FIA 222 Black and White Photography II
- FIA 223 Color Photography

GAME DESIGN DEVELOPMENT

ASSOCIATE IN APPLIED SCIENCE DEGREE

Game Design Development is a comprehensive two-year program leading to an Associate in Applied Science degree. The program introduces students to a variety of animation, programming and gaming concepts. Students learn the concepts of 3D graphics, particle systems, rendering, collision detection, and game algorithms. Students also gain an understanding of the connection between game design with physics and mathematics. For better design, students are also required to successfully complete fine arts and creative writing courses. The program provides students with the skills necessary for entry-level positions in the game design and animation and game development industry.



Upon successful completion of all program requirements, graduates will be able to:

- Define game design terminology.
- Discuss the role of intellectual property, copyright, trademarks and patents in gaming.
- Demonstrate animation techniques in game design development.
- Apply the skills and concepts utilized in the game design industry including time management skills.
- Design storyboards and prototypes for specific game design concepts.
- Design and create complete 2D and 3D game assets to interactive games.
- Communicate effectively in writing, verbal and electronic formats.

AFTER UNION COUNTY COLLEGE

Graduates can apply for entry-level positions in the field of Game Design, 3D modeling animation and Game Development, or may transfer to four-year colleges or universities in Game Design or a similar degree program.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
BUS 101	Intro to Contemporary Business	3		3
CSC 100	Fundamentals of Programming	2	2	3
ENG 101	English Comp I	3	1	3
FIA 104	Basic Design	1	4	3
GDP 101	Fundamentals of Game Design	3		3
MAT 119	Algebra*	4		4
				19

SPRING SEMESTER

COM 105	Storytelling for Digital Media	2	2	3
CIS 130	Intro to Visual Basic	2	2	3
GDP 110	Game Design & Development I	3		3
GDP 115	The Business of Gaming	3		3
FIA 202	Graphic Design I	1	4	3
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 122	Introductory Technical & Business Writing	3	1	3
GDP 201	Principles of Animation	2	2	3
GDP 210	Game Design & Development II	2	2	3
MAT 143	Elementary Mathematical Analysis I*	4		4
PHY 125	Elements of Physics	3		3
PHYL 125	Elements of Physics Laboratory		2	1
				17

SPRING SEMESTER

ENG 215	Creative Writing	3		3
GDP 215	3D Game Programming	2	2	3
GDP 280	Game Development Portfolio	3		3
Elective	Fine Arts	3		3
Elective	General Education	3		3
				15

Total Program Credits: 66

* A higher level math course may be substituted. Please check with program coordinator

GRAPHIC DESIGN/FINE ARTS

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The Fine Arts Option in Graphic Design is a Liberal Arts transfer-oriented curriculum that provides students, through a core of visual arts/design related courses, a theoretical and practical understanding of the commercial art area of Graphic Design. Utilizing skills and techniques learned through a combined lecture/studio experience, students are introduced to the various aspects of the graphic communication process including the development of roughs, comps, layouts, pasteups, and mechanicals in a Macintosh-equipped digital laboratory. A specific approach to beginning and advanced design problem-solving is emphasized. Additional topics of study include an analysis of graphic art production processes including photo digitizing, typography, and the use of illustration software programs.



See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- State the theoretical skills involved in creating visuals, combining images and typography.
- Create visuals which utilize both images and typography.
- Create examples, utilizing diverse materials and media, of techniques traditionally used in foundation level graphic design studios.
- Create examples of traditional layout comps, thumbnail, and sketch mode visualizations.
- State the critical and aesthetic essentials seen throughout the history of graphic design.
- Utilize the tools of digital design including computer and design software to prepare graphic design examples.
- Create a portfolio of work that demonstrates competency in graphic design.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a related program at a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
FIA 104	Introduction to 2D Design	OR		
FIA 108	Art Appreciation	3		3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT 119	Algebra	4		4
				16

SPRING SEMESTER

ENG 102	English Comp II	3	1	3
FIA 109	Introduction to Drawing	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science	3	3	4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG	200-Level Literature Course	3		3
FIA 115	Fundamentals of Figure Drawing	3		3
FIA 202	Introduction to Graphic Design	3		3
PSY 101	General Psychology	3		3
MAT 127	Elementary Statistics	OR		
	Laboratory Science	3	3	4
				16

SPRING SEMESTER

BUS 203	Principles of Advertising	3		3
ENG 128	Dynamics of Communication	OR		
ENG 129	Public Speaking	3		3
FIA	Diversity Course*	3		3
FIA 204	Fundamentals of Graphic Design	3		3
FIA 225	Fundamentals of Digital Imaging**	3		3
PSY 102	Psychology of Personality	3		3
				18

Total Program Credits: 66

* Students can take FIA 105, FIA 108, FIA 111, FIA 112, FIA 117 to fulfill the Fine Arts Diversity Course requirement.

** Students who take FIA 225 Fundamentals of Digital Imaging must take FIA 224 Intro to Digital Imaging or receive permission of instructor.

HELP DESK Technology Support Specialist

ASSOCIATE IN APPLIED SCIENCE DEGREE

The Help Desk Program is a comprehensive two-year program leading to an Associate in Applied Science degree. The program will provide students with the skills necessary to enter one of the fastest growing occupations. As technology increases in complexity so will the demand for educating well-trained personnel. The help desk has become and will continue to be an integral element of most business organizations. A good help desk person needs specific technical skills as well as communication, customer service, and people skills.



Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate proficiency in the use of current computer applications including word processing, spreadsheets, presentation software, and databases.
- Demonstrate proficiency in Internet and Web technologies.
- State and apply basic troubleshooting techniques.
- Communicate effectively in writing, verbally and electronic formats.
- Students will state their ethical responsibilities in the Help Desk field.

AFTER UNION COUNTY COLLEGE

Graduates will have developed the skills necessary to work as help desk support personnel.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
Elective	Business see list below	3		3
CIS 107	Operating Systems for Help Desk	3	1	3
CIS 113	Word I	2	3	3
CIS 120	The Internet	2	2	3
ADM 140	Customer Service	3		3
ENG 101	English Comp I	3	1	3

18

SPRING SEMESTER

CIS 140	Help Desk	3	1	3
CIS 115	Excel	2	2	3
CIS 121	HTML Programming*	2	2	3
ENG 122	Introductory Technical & Business Writing	3	1	3
MAT 119	Algebra**	4		4

16

SECOND YEAR

FALL SEMESTER

CIS 207	PC Troubleshooting & Repairs	2	2	3
CIS 116	Access	2	2	3
ENG 128	The Dynamics of Communication	3		3
Elective	Humanities			3
CIS 205	Data Communication & Networks	2	2	3
CSC 100	Fundamentals of Programming***	2	2	3

18

SPRING SEMESTER

CIS 117	PowerPoint	2	2	3
CIS 204	Database Management	2	2	3
Elective	Technology – see list below	3		
PSY 101	General Psychology****	3		3
CIS 210	Principles of Information Security	3		3

15

Total Program Credits: 67

*CIS 122 may be substituted

** MAT 143 or a higher level math course may be substituted. Please check with program coordinator.

*** CIS 130 may be substituted

****SOC 101 may be substituted

BUS elective – BUS 101, BUS 105, BUS 107, BUS 200

Technology elective – CSC 290, CSC 285, CSC 101, ADM 214

**Do you need
a quicker
way to your
career?**

Consider a Certificate program. From Criminal Justice to Paramedic training, Certificate programs require fewer credit hours and some can be completed in as few as two semesters!

HOMELAND SECURITY

CERTIFICATE OF ACHIEVEMENT

The main focus of the Homeland Security Program is to supply students with a foundation for further study in this field and help provide employment for people looking in this area, as well as providing skills for people already employed in Homeland Security.

This program is designed for people working in the Criminal Justice/Security Field, as well as for people who are planning to work in the Criminal Justice/Security Field.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate an understanding of principles of information technology.
- Display a knowledge of basic forensic procedures.
- Show a basic knowledge of criminal investigations especially as it relates to terrorism.
- Demonstrate familiarity with the history and development of private security and how it fits into the Criminal Justice System.



AFTER UNION COUNTY COLLEGE

This program is designed to prepare students to function in a socially changing world as mandated in Master Plan III as well as providing opportunities for life-long learning, employment and advancement. Graduates of this program will be granted a certificate.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
CIS 210	Principles of Information Security	3	-	3
CRJ 103	Introduction to Forensic Science	3	1	4
CRJ 203	Criminal Investigation	3	-	3
CRJ 207	Special Police Operations	3	-	3
CRJ 223	Criminal Justice Problems in Business and Industry	3	-	3
Total Program Credits:				16

Puzzled by Prerequisites?

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You **MUST** take and pass all prerequisites.

HOTEL, TOURISM, AND RESTAURANT MANAGEMENT

ASSOCIATE IN APPLIED SCIENCE DEGREE

The Hotel, Tourism, and Restaurant Management program provides Union County College students with a strong business and customer service foundation required for careers in this dynamic and expanding, hotel, restaurant, and tourism industries.

Upon successful completion of all program requirements, graduates will be able to:

- Develop critical thinking, decision making, problem solving skills, and strategic planning.
- Practice interpersonal and communication skills appropriate to function effectively in a diverse society.
- Apply knowledge of basic computer concepts to their use in the hospitality industry.
- Discuss the hospitality management code of ethics.
- Demonstrate the ability to perform necessary elements of management within the hotel, restaurant, and tourism industries.
- Appropriately use current equipment associated with hospitality management including planning its arrangement, operation, and maintenance.



- Discuss sales, marketing, and hotel front office management in the hospitality industry, along with food and beverage operations.
- Communicate effectively in writing, verbal and electronic formats.
- Be skilled in teamwork, quality improvements, and the ability to make educated decisions in this ever changing, complex, international industry.

AFTER UNION COUNTY COLLEGE

Graduates can enter an exciting career in the rapidly growing hotel, restaurant, and tourism industry or transfer to a four-year college or university.

Consultation with the Coordinator of the Hotel, Tourism, and Restaurant Management program is advised.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

PREREQUISITES

COURSE#	COURSE	LEC.	LAB	CR.
UCC 101	First Year Seminar	2		2
ADM 101	Keyboarding for the Computer I	1	2	2
				4

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ADM 140	Customer Service	3		3
ENG 101	English Comp I	3		3
CIS 100	Intro to Computer Applications	2	2	3
BUS 105	Organization & Management	3		3
HSM 100	Intro to the Hospitality Industry	3		3
				15

SPRING SEMESTER

ENG 122	Intro to Technical & Business Writing	3	1	3
BUS 107	Personnel Management	OR		
BUS 200	Small Business Management	3		3
ACC 103	Accounting I	4		4
HSM 110	Food & Beverage Management	3		3
HSM 120	Front Office Operations Management	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 128	Dynamics of Communication	OR		
ENG 129	Public Speaking	3		3
Elective*	Modern Language	3		3
PSY 101	General Psychology	3		3
MAT 113	Math Applications	3		3
HSM 205	Planning & Control of Food & Beverage Operations	3		3
HSM 220	Housekeeping Operations Management	3		3
				18

SPRING SEMESTER

Elective*	Modern Language	3		3
MAT 117**	Intro to Mathematical Ideas	3		3
BUS 110	Business & Technology	3		3
HSM 240	Hospitality Sales & Marketing	3		3
HSM 280	Internship in Hospitality Management	3		3
				15

Total Program Credits: 64

* One-year sequence of a Modern Language

** A higher level math may be selected

PROGRAMS OF STUDY

Puzzled by Prerequisites?

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You MUST take and pass all prerequisites.



ILLUSTRATION/FINE ARTS

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The Fine Arts Option in Illustration is a Liberal Arts transfer-oriented curriculum that provides students, through a core of visual arts/illustration-related courses, a theoretical and practical understanding of the commercial art area of illustration. Utilizing skills and techniques learned through a combined lecture/studio experience, students are taught to creatively differentiate between product, journalistic, and advertising forms of illustration. Considerable time is focused on learning specific studio media and techniques including the use of pencil and dry media, pen and ink, watercolor, oil, gouache, tempera, and acrylic paint. Study also includes concentration on beginning and advanced visual problem-solving through use of illustration software in a Macintosh laboratory environment.



See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- State the techniques and materials commonly used in textural and figurative depictions.
- Create art work utilizing a variety of media including watercolor, colored pencil, ink wash and gouache.
- State the critical, aesthetic and historic approaches to illustration.
- Utilize computers and digital software to prepare illustrations.
- Create a portfolio of work that demonstrates competency in illustration.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a myriad of four-year degree programs and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
FIA 109	Introduction to Drawing	3		3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT 119	Algebra	4		4
				16
SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
FIA 110	Introduction to Painting	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science	3	3	4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG	200-Level Literature course	3		3
FIA 115	Fundamentals of Figure Drawing	3		3
FIA 209	Introduction to Illustration	3		3
PSY 101	General Psychology	3		3
MAT 127	Elementary Statistics OR			
	Laboratory Science			4
				16
SPRING SEMESTER				
BUS 203	Principles of Advertising	3		3
ENG 128	Dynamics of Communication OR			
ENG 129	Public Speaking	3		3
FIA 104	Introduction to 2D Design OR			
FIA 224	Introduction to Digital Imaging	3		3
FIA 210	Fundamentals of Illustration	3		3
GOV 202	American National Govt OR			
PHI 205	Intro to Philosophy	3		3
FIA	Diversity Course*			3
				18
Total Program Credits:				66

* Students can take FIA 105, FIA 108, FIA 111, FIA 112, or FIA 117 to fulfill the Fine Arts Diversity Course requirement.

INTERNATIONAL STUDIES

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The International Studies option is designed for traditional transfer-oriented students seeking a baccalaureate or higher degree in international affairs leading to possible careers with multinational corporations, the federal government, or international organizations. Community leaders interested in foreign policy issues and business people seeking to expand their knowledge of the international economy within the global system may also find this program of interest.

Upon successful completion of all program requirements, graduates will be able to:

- Think critically about the global system;
- Demonstrate familiarity with the history and culture of those civilizations which have interacted with the West over the last several centuries;
- Display knowledge of the basic operation of the international system of sovereign states from the Treaty of Westphalia in 1648 to its current evolution;
- Understand of the causes of war and the efforts made to produce alternative methods of conflict resolution, including collective security through the United Nations;
- Express awareness of the roles played by intergovernmental organizations (IGOs), such as WTO, WHO, UNESCO, and non-governmental organizations (NGOs), such as the International Red Cross, Amnesty International, and Green Peace, in the global system;
- Exhibit familiarity with the development and growth of the Global Economy;
- Understand of the role of multinational corporations (MNCs) within the international system;
- Demonstrate familiarity with statistics so that students can analyze population trends, economic projections, and political data;
- Display sensitivity to the different value systems, ideologies, national interests, and alternative business practices of various cultures.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a related program at a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
	Modern Language***	3		3
HIS 101	Intro to Western Civilization I or			
HIS 209	20th Century European History	3		3
MAT 117	Intro to Math Ideas or			
MAT 119	Algebra or			
CIS 100	Intro to Computer Applications* or			
	Higher Level Math/Sci/Tech course****	3		3 or 4
GEO 201	World Geography**	3		3
				15 or 16

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
	Modern Language***			3
HIS 102	Intro to Western Civilization II or			
HIS 215	American Experience in the 20th Century	3		3
ECO 201	Principles of Economics I	3		3
MAT 127	Elementary Statistics** or			
	Higher level Statistics course	4		4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 129	Public Speaking	3		3
AST 101	Astronomy of the Solar System or			
AST 102	Astronomy Beyond the Solar System or			
BIO 208	Microbiology or			
CHE 106	Consumer and Environmental Chemistry or			
GEY 101	Physical Geology or			
GEY 102	Historical Geology or other laboratory science course in the Earth			
	Science, Ecology, and Environment Category	3	3	4
	Modern Language***	3		3
GOV 201	American Govt. & Politics	3		3
ECO 209	The International Economy**	3		3
				16

SPRING SEMESTER				
ENG	200-Level Literature course (diversity course)	3		3
	Modern Language***	3		3
GOV 202	American National Govt	3		3
GOV 207	International Politics**	3		3
	Electives			4-5
				16-17

Total Program Credits: 63-65

* Requires Keyboarding Skills

** Specialization Courses within the Option

*** Completion of the intermediate level in a foreign language meets the language requirement. Substitution courses must be within the Humanities General Education Requirement.

**** If this is a three credit course, you will need one or more additional credit in the Mathematics/Science/Technology category so that upon graduation you will have 12 credits or more in this general education category. Any additional one credit in any course in the Mathematics/Science/Technology category will meet this requirement. Check with Transfer Counselor or Program Coordinator on the appropriate course choice.

Recommended electives:

ADM 101	Keyboarding for the Computer I	ECO 205	Money and Banking
BIO 101	Introduction to Biology	ENG 2XX	200 Level English course
BUS 209	Introduction to Global Business	FIA 111	History of Art I
BUS 210	Marketing and the Global Environment	FIA 112	History of Art II
CHE 106	Consumer and Environmental Chemistry	GOV 204	Public Administration
CIS 126	E-Commerce Fundamentals	GOV 210	Third World, United Nations, and International Law Seminar
ECO 202	Principles of Economics II	MAT 246	Business Statistical Analysis



INTERPRETING SPOKEN LANGUAGE

CERTIFICATE

This program prepares its graduates to become court interpreters. Fluency in both English and at least one other language is required for admission to the program. Students will develop their interpreting ability with courses that focus on consecutive interpreting, simultaneous interpreting, and sight translation. Students will also be prepared to enter the workforce as freelance interpreters by learning about how to succeed in the field of professional interpreting and translating. Ethical issues and the responsibilities of the interpreter are also taught.

Upon successful completion of all program requirements, graduates will be able to:

- Perform simultaneous interpreting;
- Perform consecutive interpreting;
- Perform sight translation of legal documents;

- Pass the New Jersey State Certification Exam for Court Interpreters on the level of Journeyman;
- Maintain and improve one's interpreting skills after graduation;
- Enter the workforce as a professional freelance interpreter;
- Display awareness of the diverse cultural factors which play a crucial role in language interpreting;
- Demonstrate awareness of the ethical principles and responsibilities underlying the role of court interpreter.

AFTER UNION COUNTY COLLEGE

Graduates will be prepared to enter the workforce as freelance or court interpreters by learning about how to succeed in the field of professional interpreting and translating.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

COURSE#	COURSE	LEC.	LAB	CR.
INT 101	Interpreting I	3		3
INT 102	Interpreting II	3		3
INT 105	Role of Interpreter	3		3
TRN 101	Intro to Written Translation	3		3
ENG 101	English Comp I	OR	3	1 3
ENG 111 & ENG 112	English Comp. For Speakers of Other Languages		6	2 6
ENG 128	Dynamics of Communication	3		3
ENG 129	Public Speaking	3		3
Elective	Mathematics OR Science			3-4
Elective	Social Science	3		3
Elective	Humanities (ENG 112 serves as a Humanities elective)	3		3
Total Program Credits:				30-31

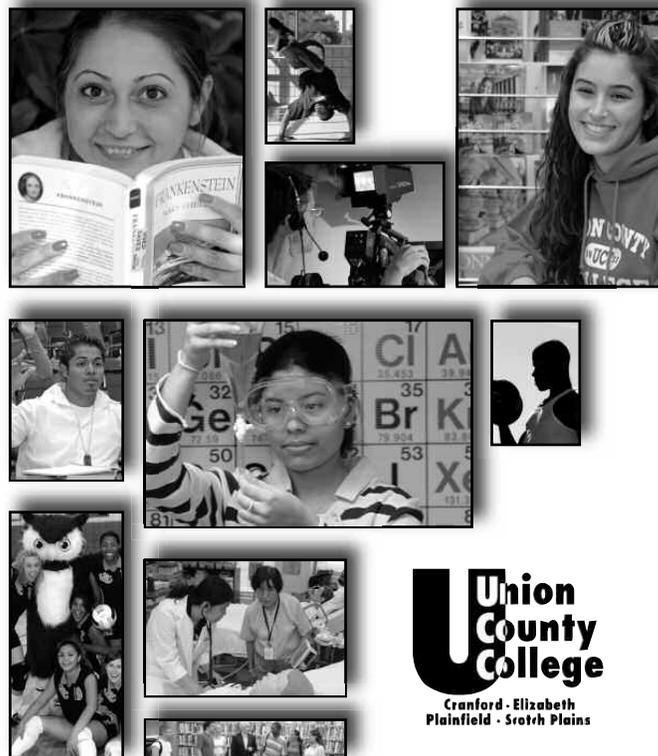
They say time changes things, but you actually have to change them yourself.

Andy Warhol (1928 - 1987)

If it's your time for change, let Union County College be your partner for success.

With over 75 programs of study, flexible class schedules, and online courses, Union County College isn't any two-year school. Graduates have transferred to more than 500 colleges and universities! The College has agreements with over 50 colleges and programs, as well as Joint Admissions and Dual Degree Programs with NJIT and Rutgers, Georgian Court, Montclair State, Kean, Fairleigh Dickinson and New Jersey City Universities.

FOR INFORMATION CALL 908-709-7518 OR VISIT WWW.UCC.EDU



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JOURNALISM

Option offered through Communications ASSOCIATE IN ARTS DEGREE

This program is designed for transfer to a bachelor's degree-granting institution. Course work includes theory and practice of reporting and writing news and features for print publications. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse.
- Discuss and analyze current social and political issues and events.
- Demonstrate proficiency with productivity software such as word processing, presentation manager, web browser and apply them in the field of communications.
- Explain the importance of committing to a process of life-long learning.
- Evaluate prevalent cultural narratives and texts and the various media used to convey them.
- Compose articles and headlines appropriate to the style requirements of a variety of media publication and distribution channels.



Other Communications Degrees Include:

- Audio Production
- Communications
- Film
- Game Design Creation
- Multimedia
- Public Relations
- Radio
- Television

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year degree program and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Puzzled by Prerequisites?

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You **MUST** take and pass all prerequisites.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
MAT	A 4-credit Mathematics course	4		4
COM 100	Communications Technologies	3	2	4

17

SPRING SEMESTER

COM 102	Reporting & News Writing	3		3
ENG 102	English Comp II	3		3
Laboratory Science		3	3	4
ENG 128	The Dynamics of Communication			
OR				
ENG 129	Public Speaking	3		3
HIS 102	Intro to Western Civilization II	3		3

16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 201	Issues in Mass Media	3		3
ENG	200-Level	3		3
Modern Language		3		3
GOV 201	American Govt. & Politics	3		3
PSY 101	General Psychology	3		3
Elective	Diversity	3		3

18

SPRING SEMESTER

COM	Communications Elective	3		3
ENG	200-Level	3		3
Modern Language		3		3
GOV 202	American National Govt	3		3
Elective	Humanities or Social Science	3		3

15

Total Program Credits: 66

LIBERAL ARTS

ASSOCIATE IN ARTS DEGREE

The Liberal Arts program has existed at Union County College since its beginning in 1933. It is the College's premier transfer-oriented curriculum for students who want to complete a broad-based liberal arts and sciences foundation before majoring in particular disciplines within the humanities, social sciences, natural sciences, or mathematics. The program is designed to meet the core requirements of most four-year liberal arts colleges.

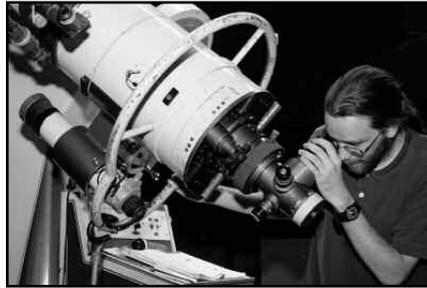
A wide range of program options have been developed from this core curriculum, many of which allow a measure of specialization during the first two years of college. The core Liberal Arts program provides a basic college introduction to many academic disciplines and programs. It is the quintessential preparation for a well-rounded general education, allowing students to experience various academic disciplines before settling on a major after transfer.



See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate college-level competency in historical knowledge about the Western tradition and its development in America.
- Show college-level competency in the social sciences.
- Display college-level understanding of American government, politics, and society.
- Appreciate the economic forces shaping all human societies.
- Appreciate the fine arts: music, art, drama, literature.
- Display an understanding of the findings of the natural sciences and their applications to solving practical problems.



- Demonstrate college-level competency in mathematics that allows the graduate to use algebra and statistics to solve various problems in the sciences and practical life.
- Express awareness of and concern for the ethical implications of institutional policies and individual practices.
- Utilize critical thinking, problem-solving skills, and effective communications skills.
- Use technology for learning and research.
- Learn independently and to direct his/her own learning.

AFTER UNION COUNTY COLLEGE

Graduates of this program receive a broad-based education that allows them to transfer to a four-year college or university and major in Literature, the Social Sciences, Mathematics, and the exact Sciences. For many professions, such as Teaching, Law, Government Service and Social Work, this background is essential.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT	Mathematics*			3-4
PSY 101	General Psychology	3		3

15-16

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
Laboratory Science**		3	3	4
PSY 102	Psychology of Personality	3		3

16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ECO 201	Principles of Economics I	3		3
ENG	200-Level Literature course	3		3
	Modern Language	3		3
GOV 201	American Govt. & Politics	3		3
Elective(s)	Mathematics, Science or Technology**			4-5

16-17

SPRING SEMESTER				
ECO 202	Principles of Economics II	3		3
ENG	200-Level Literature course	3		3
	Modern Language	3		3
GOV 202	American National Govt	3		3
ENG 128	Dynamics of Communication			OR
ENG 129	Public Speaking	3		3
Elective	Diversity			3

15

Total Program Credits: 62-637

* MAT 117, MAT 119 or higher. See Liberal Arts Programs guidelines under Mathematics course listings.

** A minimum of 5 credits is required in Mathematics, Science, and Technology. It is suggested that the liberal arts student choose electives from the following list:

AST 101, 102	CRJ 205	HIS 205	PHY 101, 102
BIO 101, 102	ENG 128, 129	HIS 209	PHY 125
BIO 103, 104	FIA 111, 112	HRS (ALL)	PSY 206, 207
BIO 109, 113	GEY 101, 102	MAT 119	SOC 101, 102
BIO 114, 118	GOV 205	MAT 127	URS 101
CHE 101, 102	HIS 105, 106	MAT 161, 162	
CHE 106	HIS 201, 202	PHI 205	

LIBERAL STUDIES

ASSOCIATE IN SCIENCE DEGREE

This program is for adults who have been away from secondary school at least four years. The A.S. degree is awarded upon satisfactory completion of no fewer than 64 credit hours of work selected from the various disciplines of the College. It allows adults great flexibility to select their own college courses according to their own interests within six broadly defined educational categories: communication; history; humanities; mathematics, science, and technology; social science; and electives. Six to twelve college credits are required in each of these areas. The program meets the State-mandated general education distribution requirements for the Associate in Science Degree.



Many college courses have prerequisites. These prerequisites must be met before taking more advanced courses.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally, in writing, and in electronic form.
- Use technology and library resources for independent learning and research.
- Compare and contrast the history and culture of the West in relation to its development in America and to the world.
- Explain the business culture of America, our political system, its history, and the American role in the world community.
- Analyze the economic forces shaping all human societies.
- Compare and contrast American art, drama, music, literature, and the other humanities to other cultures.
- Analyze the ethical implications of institutional policies and individual practices.
- Discuss the findings of the natural sciences and their applications to practical problem solving.
- Utilize college-level algebra and statistics to solve problems in the sciences and practical life.
- Utilize the knowledge of psychology and sociology to analyze the human personality and its impact on social behavior and the learning process.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

	Cr.
1. Communication	9
2. Humanities	9
3. Mathematics, Science & Technology*	10-12
4. Social Science	6
5. History	6
6. Electives	22-27
Total Program Credits:	60-69

1. Communication: Courses in oral and written communication, all 9 must be approved Gen. Ed. courses**
2. Humanities: Fine Arts (Arts, Music, and Drama), French, German, History, Italian, Literature, Philosophy, and Spanish; 3 credits of which must be approved Gen. Ed. Courses.**
3. Mathematics, Science and Technology: Astronomy, Biology, Chemistry, Engineering, Geology, Mathematics, Physics, Computer Information Systems & Computer Science; 9 credits of which must be approved Gen. Ed. Courses**
4. Social Science: Economics, Geography, Government, Psychology, and Sociology; 3 credits of which must be approved Gen. Ed. Courses**
5. History; all 6 credits must be approved Gen. Ed. courses**
6. Electives: Credit courses chosen from any discipline; 6 credits of which must be approved Gen. Ed. Courses**

* A minimum of 3 credits in Mathematics and 4 credits in Science are required. The science course must be a laboratory science.

** for list of the approved general education course categories please see page 139.

MATHEMATICS

ASSOCIATE IN SCIENCE DEGREE

Mathematics is both a science and an art. In our ever-changing world, mathematics is a constant at the root of analytical thinking. As the foundation for studies in science, technology, economics, and other disciplines, the demand for graduates with strong mathematical backgrounds is increasing. Whether to better grasp basic applications in our society, to come to understand the beauty and utility of mathematics in our natural world, to recognize its connections to the humanities, or to apply its intricate relationships in advanced technical fields, the study of mathematics develops one's ability to think critically, reason logically and quantitatively, and appreciate the interconnectedness of the disciplines pragmatically.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate critical thinking, analytical reasoning, and problem solving skills.
- Communicate mathematics effectively, applying its unique language and symbolic system.
- Identify and apply mathematical theorems.
- Write clear and logical discussions, supporting one's point of view.
- Formulate and evaluate possible solutions to problems, and select and defend the chosen solutions with mathematical proofs or by scientific method as appropriate.
- Translate quantifiable problems into mathematical terms and solve these mathematical models.
- Interpret charts & graphs, and draw appropriate conclusions.
- Demonstrate an awareness of mathematical principles and applications in an ever-changing society.
- Demonstrate comprehension of mathematical concepts and algorithms through applications, making real-world connections in order to keep pace with contemporary progress in a variety of fields.
- Use technology in analyzing and solving mathematical problems.
- Solve mathematical problems independently and cooperatively as part of a team.
- Comprehend and evaluate resources.



- Demonstrate comprehension of mathematical concepts through the ability to teach them effectively to others.
- Discuss the fact that all the disciplines have been affected by mathematical developments.
- Demonstrate knowledge of important historical figures across cultures who have contributed to the development of mathematics.
- Recognize the need for continuing efforts to assure the study and applications of mathematics in our society.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Is a 4-year degree in your future?

An Associate of Arts (A.A.) or Associate of Science (A.S.) degree from Union County College is **fully transferable** as the first two years of a baccalaureate degree program at **any** New Jersey public four-year institution under the Comprehensive State-Wide Transfer Agreement.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG101	English Composition I	3	0	3
MAT171	Unified Calculus I	4	0	4
PHY101	General Physics I* WITH	3	0	3
PHYL101	General Physics I Lab	0	1	1
CSC100	Computer Programming Fundamentals	2	2	3
				14

SPRING SEMESTER

ENG102	English Composition II	0	3	3
MAT172	Unified Calculus II	4	0	4
PHY102	General Physics II* WITH	3	0	3
PHYL102	General Physics II Lab	0	1	1
CSC101	Computer Algorithms	2	2	3
HIS101	Introduction to Western Civilization I	3	0	3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG2__	200 Level Course	3	0	3
MAT271	Unified Calculus III	4	0	4
MAT265	Linear Algebra	3	0	3
Elective	Social Science	3	0	3
Elective	Humanities	3	0	3
				16

SPRING SEMESTER

MAT272	Differential Equations	4	0	4
MAT267	Discrete Mathematics	3	0	3
Elective	Social Sciences	3	0	3
MAT266	Survey of Modern Mathematics	3	0	3
Elective	Free Elective	3	0	3
				16

Total Program Credits: 63

* Students whose transfer institution requires a calculus based physics course should consult with their faculty advisor to schedule PHY 111 and PHY 201 instead

MECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE

FOR MECHANICAL ENGINEERING SEE "ENGINEERING" ON PAGE 84

Mechanical Engineering Technology (MET) is a comprehensive two-year program which leads to an Associate in Applied Science degree. MET graduates are prepared to work in engineering and manufacturing firms and research and development laboratories. Typical positions are in the areas of Computer-Aided Design (CAD), machinery and tool design, Computer Integrated Manufacturing (CIM), facilities design, electronic packaging, CAD/CAM and materials testing. MET graduates also have the option to pursue a Bachelor of Science Degree in Engineering Technology at a four-year institution.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Apply computer-aided drafting (CAD) skills to prepare working detail, assembly and installation type engineering drawings to industrial standards;
- Apply Geometric Dimensioning and Tolerancing (GD&T) techniques to engineering drawings;
- Select and specify materials for mechanical applications considering strength, weight, corrosion, finish, and cost;
- Select and specify appropriate screw threads and fasteners considering size, thread form, and series and head type;



- Use CAD/CAM software and hardware to create part geometry, generate a numerical control program, and operate a machine tool to produce an actual part;
- Demonstrate knowledge of the basic principles of statics and strength of materials to compute forces, stresses and strains in simple machines and machine frames;
- Demonstrate knowledge of the basic principles of fluid mechanics to calculate hydrostatic pressure, forces on submerged surfaces, flow rates and pressure drops in pipelines;
- Use standard ANSI tables for sizing and tolerancing of mating parts;
- Utilize computer software applications such as word processing, spreadsheets, basic programming, and mathematical computing.

AFTER UNION COUNTY COLLEGE

Graduates work in engineering and manufacturing firms and research and develop laboratories. Typical positions are in the areas of Computer-Aided Design, Machinery and Tool Design, Computer Integrated Manufacturing, Facilities Design, Electronic Packaging, CAD/CAM and Materials Testing. MET graduates also have the option to pursue a bachelor of science degree in Engineering Technology at a four-year institution.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
MAT 143	Elementary Mathematical Analysis I	4		4
CSC 115	Intro to Computer Programming	2	2	3
MET 106	Engineering Materials & Processing	2	3	3
MET 109	Computer-Aided Drafting	2	3	3
				16

SPRING SEMESTER

ENG 122	Introductory Technical & Business Writing (or ENG 102)	3	1	3
MAT 144	Elementary Mathematical Analysis II	4		4
PHY 101	General Physics I	3		3
PHYL 101	General Physics I Laboratory		3	1
MET 104	Engineering Drawings	3	1	3
MET 112	Mechanics-Statics	3		3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
PHY 102	General Physics II	3		3
PHYL 102	General Physics II Laboratory		3	1
CIT 215	Fluid Mechanics	3	1	3
CIT 210	Strength of Materials	3	1	3
EET 101	Principles of DC Circuits	3	3	4
Elective	Social Science	3		3
				17

SPRING SEMESTER

EET 111	Digital Computer Fundamentals	3	3	4
CIT 201	Structural Design	3	1	3
MET 219	CAD/CAM	2	3	3
Elective	Humanities			3
Elective	Technical*			3
				16
Total Program Credits:				66

* MAT 171 Unified Calculus required for Transfer to a 4-Year Institution



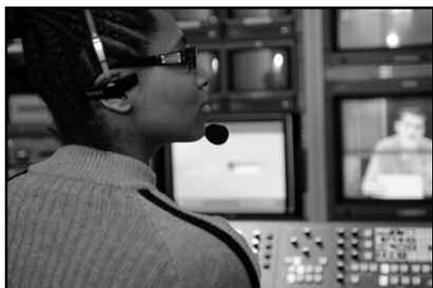
Are you great with numbers?

Do numbers rule your universe? Turn to page 99 to learn about UNION County College's Associate in Science degree in Mathematics.

MULTIMEDIA

Option offered through Communications ASSOCIATE IN ARTS DEGREE

This program is designed for transfer to a bachelor's degree-granting institution. Students will learn the fundamentals of multimedia design and gain practical experience in the development of multimedia content through the fusion of audio, video, images and text. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.



Other Communications Degrees Include:

- Audio Production
- Communications
- Film
- Game Design Creation
- Journalism
- Public Relations
- Radio
- Television

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse.
- Discuss and analyze current social and political issues and events.
- Demonstrate proficiency with productivity software such as word processing, presentation manager, web browser in addition to software specific to the field of multimedia design.
- Explain the importance of committing to a process of life-long learning.
- Manage current technology in the area of multimedia development and design.
- Work effectively as a member of a team in the field of multimedia.
- Analyze and apply the technical and theoretical skills in the field of multimedia design and web specialist.

AFTER UNION COUNTY COLLEGE

Graduates may transfer to a bachelor's degree-granting institution to major in **Multimedia/Communications, Journalism, or various degree programs and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.**

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology	3		3
MAT	Any 4-credit Mathematics course	4		4
COM 100	Communications Technologies	3	2	4
				17

SPRING SEMESTER

COM 112	Multimedia Dev I - Presentations	3		3
ENG 102	English Comp II	3	1	3
	Any Laboratory Science	3	3	4
ENG 128	The Dynamics of Communication			
OR				
ENG 129	Public Speaking	3		3
FIA 108	Appreciation of Arts	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 216	Digital Video Editing & Multimedia Imaging	3		3
ENG	200-Level	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt. & Politics	3		3
COM 209	The Evolution of Film	3		3
Elective	Social Science	3		3
				18

SPRING SEMESTER

COM 212	Multimedia Dev II - Authoring	3		3
ENG	200-Level	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt	3		3
Elective	Humanities	3		3
				15

Total Program Credits: 66

MUSIC/FINE ARTS

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The study of music will include an exploration of the various styles and periods of music throughout history, as well as the acquisition of basic music skills such as reading music, playing simple instruments, and conducting song sessions. Discussions and listenings will illuminate the different forms of music.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).



Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate basic general musicianship skills;
- Show a basic understanding and appreciation of various musical styles;
- Display a general understanding of formal creative issues, including musical form, melody, harmony, rhythm, texture, motive, instruments, and orchestra;
- Understand basic music theory, including notation, intervals, scales, and triads;
- Demonstrate the necessary knowledge for teaching general music at the elementary school level.

AFTER UNION COUNTY COLLEGE

Graduates may transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
FIA 105	Music Appreciation	3		3
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
MAT 119	Algebra	4		4
				16

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
FIA 103	Fundamentals of Music	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science	3	3	4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG	200-Level Literature course	3		3
FIA 117	Music in the 20th Century	3		3
GOV 202	American National Govt	3		3
PSY 101	General Psychology	3		3
MAT 127	Elementary Statistics			
	Laboratory Science	3	3	4
				16

SPRING SEMESTER				
ENG 128	Dynamics of Communication			or
ENG 129	Public Speaking	3		3
FIA 106	History of Music	3		3
GOV 201	American Govt. & Politics			or
PHI 205	Intro to Philosophy	3		3
PSY 102	Psychology of Personality	3		3
FIA	Fine Arts course*	3		3
FIA	Diversity course**	3		3
				18

Total Program Credits: 66

* Students can take a Fine Arts course elective in Dance, Drama, Photography, or Visual Arts to fulfill the Fine Arts Course requirement.

** Students can take FIA 108, FIA 111 or FIA 112 to fulfill Fine Arts Diversity Course requirement.

PUT YOURSELF IN THE PICTURE



*and start changing your life
... today*

So Many Reasons to Study at Union County College...

Union County College is an outstanding community college committed to helping you reach your academic goals. Whether you enroll full-time or part-time, at Union County College our unique combination of varied program offerings, affordable credit hours, and convenient locations create a nurturing environment for every student.

Small class sizes allow individualized attention and our extensive schedule of day, evening, weekend, and online courses give each student the scheduling flexibility they may need.

Daily, Union County College graduates demonstrate our proven record of excellence in prestigious local and national companies as well as in colleges and universities throughout the US and abroad.

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- Personal Attention • Over 75 Programs of Study
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NUCLEAR MEDICINE

ASSOCIATE IN SCIENCE DEGREE

By virtue of an agreement between Union County College and the **JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools**, Plainfield, New Jersey, Union County College confers a degree of Associate in Science upon graduates of the Hospital-sponsored school who have fulfilled the requirements for the degree specified by Union County College. Students in the program earn college credits in English, mathematics, biology, physics, chemistry, social sciences and humanities electives in classes and laboratories conducted at Union County College. Nuclear Medicine Technology courses are the primary responsibility of the program.

Students must apply to JFK Muhlenberg for admission to the Nuclear Medicine Technology Program by April 15 for the fall semester. At least half of the required science courses and English 101 must have been completed at the time of application. All prerequisite courses must be completed by December 31 to be considered for entry into the professional courses of the program.

ADMISSION INTO THE PROGRAM IS COMPETITIVE.

The Joint Review Committee on Educational Programs in Nuclear Medicine Technology and the New Jersey Department of Environmental Protection, Commission on Radiation Protection accredits JFK Muhlenberg Harold B. and Dorothy A. Snyder School of Nuclear Medicine Technology. Sponsored by JFK Medical Center, Edison, NJ.

Students are enrolled in the School of Nuclear Medicine Technology and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Graduates are eligible to sit for the American Registry in Radiologic Technology, Nuclear Medicine Technology Certification Board, and the New Jersey State Licensure Examinations.

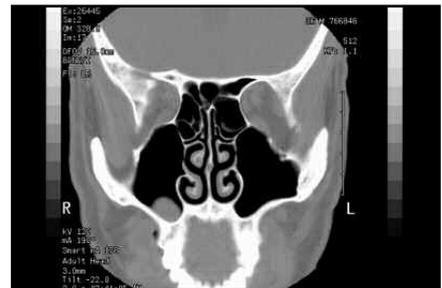
Students interested in the program should contact the JFK Muhlenberg Harold B. and Dorothy A. Snyder School of Nuclear Medicine Technology at (908) 668-2844 or (908) 668-2400 for additional information.

Upon successful completion of all program requirements, graduates of the School of Nuclear Medicine Technology will be able to:

- Provide patient care as required in the nuclear medicine department;
- Perform diagnostic nuclear medicine studies, including patient preparation, instrument preparation, patient positioning, study acquisition and computer processing;
- Assist with therapeutic nuclear medicine procedures;
- Utilize good communications skills, problem solving skills, and conflict management techniques;
- Prepare and administer radiopharmaceuticals, and non-radioactive pharmaceuticals as allowed by law;
- Engage in good radiation safety practices;
- Perform quality control procedures on nuclear medicine equipment;
- Perform administrative duties as required of nuclear medicine technologists;
- Practice the principles of medical ethics and adhere to the regulations and laws governing the practice of nuclear medicine technology;
- Evaluate current issues in health care;
- Evaluate scientific research for validity and applicability as it relates to the practice of nuclear medicine.

Leading to a Diploma in Nuclear Medicine Technology from JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools and an Associate in Science Degree from Union County College

Prior to beginning the Professional Nuclear Medicine Courses general education credits must be successfully completed. You can transfer a maximum of 32 credits from outside colleges without a previous B.S. Degree – If you are considering a B.S. degree after our program, please choose the proper science courses.



RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

PRE-PROFESSIONAL COURSES

COURSE#	COURSE	LEC.	LAB	CR.
BIO 105	Anatomy & Physiology I	3	3	4
BIO 106	Anatomy & Physiology II	3	3	4
ENG 101	English Comp I	3		3
ENG 102	English Comp II	3		3
MAT 119	Algebra or	4		4
MAT 143	Elementary Mathematical Analysis or 4 Any higher level math course reviewed by the program	4		4
PSY 101	General Psychology	3		3
CHE 105	Chemistry-Health Sciences* or	3	3	4
CHE 111	General Chemistry I** and	3	3	4
CHE 112	Chemistry II**	3	3	4
PHY 125	Elements of Physics* or	3	2	4
PHY 101	General Physics I** and	3	3	4
PHY 102	General Physics II**	3	3	4
CIS 100	Intro to Computer Systems or	2	2	3
CIS 101	Intro to Information Systems	2	2	3
SOC 101	Principles of Sociology or	3		3
PSY 102	Psychology of Personality***	3		3
Elective	Humanities	3		3

Minimum General Education required credits for AS Degree 38

RNTM 101	Medical Terminology (Web enhanced)***	1		1
RADM 102	Radiation Math (Web enhanced)***	2		2

Courses which may be taken Pre-Professional (included in total Professional Credits) 3

NOTES

- * Course will fulfill AS degree requirement only
- ** Course required for BS degree (optional)
- *** Recommended to be taken in the Fall semester prior to the Professional Courses but may be taken corequisite with NMTM 101

- There are 8 credits of Professional Courses in the Fall semester of the professional sequence below.
- CIS 100, CIS 101, SOC 101, PSY 102 or the Humanities elective MAY be taken corequisite in this last semester.
- If these courses are offered online in the winter session they may also be taken at that time, however the clinical commitment will not allow in-class courses to be taken in the winter session.

RECOMMENDED SEQUENCE
of Professional Nuclear Medicine Courses –
Spring Semester start only

PROFESSIONAL COURSES

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER (SPRING)				
RNTM 101	Medical Terminology (Web enhanced)***	1		1
RADM 102	Radiation Math (Web enhanced)***	2		2
NMTM 101	Intro to Nuclear Medicine for Radiographers OR	1		1
NMTM 102	Intro to Nuclear Medicine for Non-Radiographers	3		3
NMTM 110	Nuclear Medicine Physics	3		3
NMTM 120	Nuclear Medicine Procedures I	4		4
NMTM 130	Nuclear Medicine Instrumentation I	3	3	4
NMTM 135	Radiation Biology & Radiation Protection	3		3
CLPN 901	Clinical Practicum – 1-2 days per week			0

Radiographers: 18
Non-Radiographers: 20

SECOND SEMESTER (SUMMER I & II)				
NMTM 121	Nuclear Medicine Procedures II	4		4
NMTM 131	Nuclear Medicine Instrumentation II	3		3
NMTM 140	Radiochemistry & Radiopharmacy	4		4
CLPN 902	Clinical Practicum – 3 days per week			0
				11

THIRD SEMESTER (FALL)				
NMTM 201	Healthcare Today (Web enhanced) or			2
RNTM 102	Healthcare Today (Web enhanced)			2
NMTM 202	Electrophysiology	1		1
NMTM 222	Nuclear Medicine Procedures III	2		2
RNTM 201	Fundamentals of Computed Tomography	3		3
NMTM 240	Nuclear Medicine Seminar I	1		1
NMTM 241	Nuclear Medicine Seminar II	2		2
CLPN 903	Clinical Practicum – 4 days per week			0
				11

FOURTH SEMESTER (WINTER)				
CLPN 904	Clinical Practicum – 5 days per week			0

TOTAL PROFESSIONAL CREDITS:
Radiographers: 40
Non-Radiographers: 42

Total Program Credits: 78-80



Healthcare

PROGRAMS OF STUDY

- Dental Assisting
- Dental Hygiene
- Nuclear Medicine
- Nursing, JFK Medical Center, Muhlenberg, Harold B. & Dorothy A. Snyder Schools
- Nursing, Trinitas School Of Nursing
- Psychosocial Rehabilitation and Treatment
- Radiography, Amplified Program In JFK Muhlenberg School Of Radiography
- Respiratory Care
- Paramedic, Emergency Health Science
- Paramedic Certificate
- Physical Therapist Assistant
- Practical Nursing
- Sonography, Diagnostic Medical



As one of the largest industries, healthcare provides nearly 15 million jobs. Ten of the 20 fastest growing occupations are healthcare related, and healthcare will generate 3.2 million new jobs by 2018 – more than any other industry, largely in response to rapid growth in the elderly population.

Combining medical technology and the human touch, the healthcare industry diagnoses, treats, and administers care around the clock, responding to the needs of millions of people—from newborns to the terminally ill.

Technological advances make new procedures and methods of diagnosis and treatment possible. Clinical developments, such as infection control, less invasive surgical techniques, advances in reproductive technology, and gene therapy for cancer treatment, increase the longevity and improve the quality of life of many Americans. And, advances in medical technology have improved the survival rates of trauma victims and the severely ill, who need extensive care from therapists and social workers as well as other support personnel.

Cost containment also is reshaping the healthcare industry, as shown by the growing emphasis on providing services on an outpatient, ambulatory basis; limiting unnecessary or low-priority services; and stressing preventive care, which reduces the potential cost of undiagnosed, untreated medical conditions. Managed care programs continue to grow and provide comprehensive coverage to members while controlling health insurance costs by emphasizing preventive care.

COOPERATIVE PROGRAMS IN PROFESSIONAL NURSING

ASSOCIATE IN SCIENCE DEGREE

By virtue of an agreement between the College and the Trinitas School of Nursing, Elizabeth, New Jersey, and the School of Nursing of the JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools, Plainfield, N.J., the College confers the degree of Associate in Science upon graduates of the Nursing Schools who have fulfilled the requirements for the degree specified by the College and who have received a Diploma in Nursing from one of the Schools. Graduates of the Schools of Nursing are eligible to sit for the National Council Licensing Examination for registered nurse licensure.



Students earn college credits in English, psychology, sociology, biology, chemistry, and humanities courses over the course of the programs in classes and laboratories conducted in the College. Nursing courses are conducted at the respective Schools of Nursing.



- **The Trinitas School of Nursing and JFK Medical Center Muhlenberg Harold B. & Dorothy A. Snyder Schools of Nursing** are approved by the New Jersey State Board of Nursing to conduct programs in professional nursing and are fully accredited by the National League for Nursing Accrediting Commission, Inc.
- **Trinitas School of Nursing** offers a generic and a LPN to RN program. The LPN to RN Completion Program is designed for Licensed Practical Nurses who wish to return to school, but need to maintain their employment status. Classroom and clinical experiences will be designed to meet the specific needs of the LPN.
- **The College of St. Elizabeth** offers an RN/BSN and BSN/MSN on site at Trinitas School of Nursing.
- **JFK Medical Center Muhlenberg Harold B. & Dorothy A. Snyder Schools of Nursing** offers a day or evening track in the nursing courses. The JFK Muhlenberg Snyder Schools offer an Accelerated Track designed for individuals who have earned a baccalaureate or graduate degree in another discipline and wish to continue their studies in nursing. The nursing or clinical portion of the program is completed in one year by attending from January through December as a full-time day student. The JFK Muhlenberg Snyder Schools also offer an LPN to RN Career Ladder Program. After successful completion of an LPN Transition course, the RN program may be completed in 2 semesters. The JFK Muhlenberg Snyder School of Nursing offers a Pathways to BSN Track in cooperation with Kean University.

Students are enrolled in the respective Schools of Nursing and are matriculated by the College. They are eligible to participate in all student activities at Union County College and they have the same rights and privileges as all other college students.

Graduates of the Cooperative Programs wishing to transfer into a Baccalaureate Nursing Program can expect that the basic program will be evaluated by the receiving institution and that transfer credits for selected courses taken in the Cooperative Programs are awarded at the discretion of the receiving institution. Articulation agreements with Kean University, Rutgers University, The College of St. Elizabeth, and Wagner College for B.S.N. education have been established.

AFTER UNION COUNTY COLLEGE

Nursing graduates may sit for the NCLEX examination of the National Council of State Boards of Nursing, Inc. in order to become licensed Registered Nurses (R.N.).

JFK MEDICAL CENTER MUHLENBERG HAROLD B. & DOROTHY A. SNYDER SCHOOLS

ASSOCIATE IN SCIENCE DEGREE

Students interested in receiving additional information about, or an application to the program should contact the Director of Admission and Recruitment Services, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools, Park Avenue and Randolph Road, Plainfield, N.J., 07061.

Upon successful completion of all program requirements, graduates will be able to:

- Function as a graduate professional nurse within structured health settings.
- Provide competent nursing care to clients with commonly occurring health deviations through application of nursing theory, evidence based practice and concepts from the behavioral and natural sciences, the humanities, ethical principles and legal standards.
- Utilize opportunities for continuing personal and professional development.
- Accept accountability/responsibility for professional practice as a nurse.
- Teach clients self care practices related to the promotion, maintenance and restoration of health.
- Cooperate with health team members to facilitate optimal health of clients in primary, secondary and tertiary settings.
- Select appropriate communication, coordination and collaborative skills when interacting with individuals and groups.
- Apply critical thinking to nursing care situations.
- Demonstrate an understanding of evidence based practice as a research participant.

AFTER UNION COUNTY COLLEGE

Graduates of these programs can either work in the Nursing/Health professions or continue their educational pursuits.

RECOMMENDED SEQUENCE – DAY AND EVENING DIVISIONS based on satisfaction of all Basic Skills requirements and prerequisites

GENERIC TRACK

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 105	Anatomy & Physiology I*	3	3	4
CHE 105	Chemistry-Health Sciences**	3	3	4
ENG 101	English Comp I	3	1	3
NURM 100	Mathematics for Pharmacology	1		1
NURM 119	Intro to Nursing Concepts	3		3
				15
SECOND SEMESTER				
BIO 106	Anatomy & Physiology II*	3	3	4
PSY 101	General Psychology	3		3
NURM 121	Nursing I	4	12	8
				15
THIRD SEMESTER				
BIO 108	Microbiology*	3	3	4
PSY 205	Child Psychology	3		3
NURM 122	Nursing II	4	12	8
				15
FOURTH SEMESTER				
SOC 101	Principles of Sociology	3		3
ENG 102	English Comp II	3	1	3
NURM 221	Nursing III	4.5	13.5	9
				15
FIFTH SEMESTER				
NURM 222	Nursing IV	4.5	13.5	9
Electives	Humanities (2)	6		6
				15
Nursing Credits:			38	
General Education Credits:			37	
Total:			75	

ACCELERATED TRACK

COURSES AT UNION COUNTY COLLEGE (IF NECESSARY)

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
BIO 105	Anatomy & Physiology I*	3	3	4
BIO 106	Anatomy & Physiology II*	3	3	4
BIO 108	Microbiology*	3	3	4
CHE 105	Chemistry-Health Sciences**	3	3	4
ENG 101	English Comp I	3	1	3
ENG 102	English Comp II	3	1	3
PSY 101	General Psychology	3		3
PSY 205	Child Psychology	3		3
SOC 101	Principles of Sociology	3		3
NURM 100	Mathematics for Pharmacology	1		1
Electives	Humanities (2)	6		6
				38
SPRING SEMESTER				
NURM 141	Accelerated Nursing	6.5	19.5	13
SUMMER SEMESTER				
NURM 241	Accelerated Nursing Summer+	6.8	20.6	11
FALL SEMESTER				
NURM 242	Accelerated Nursing	6.5	19.5	13
Nursing Credits:			38	
General Education Credits:			37	
Total:			75	

* These sciences must have been taken within the last five years to be transferable.

** The CHE 113/114 sequence is recommended for students considering BSN/MSN study.

+ Taught in a 12-week summer semester.

JFK MEDICAL CENTER MUHLENBERG HAROLD B. & DOROTHY A. SNYDER SCHOOLS

ASSOCIATE IN SCIENCE DEGREE

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

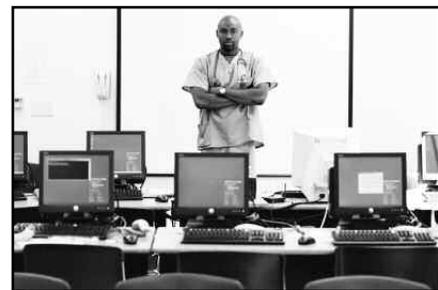
LPN TO RN TRACK

COURSES AT UNION COUNTY COLLEGE (IF NECESSARY)

COURSE#	COURSE	LEC.	LAB	CR.
PREREQUISITES				
BIO 105	Anatomy & Physiology I*	3	3	4
BIO 106	Anatomy & Physiology II*	3	3	4
BIO 108	Microbiology*	3	3	4
CHE 105	Chemistry-Health Sciences**	3	3	4
ENG 101	English Comp I	3	1	3
ENG 102	English Comp II	3	1	3
PSY 101	General Psychology	3		3
PSY 205	Child Psychology	3		3
SOC 101	Principles of Sociology	3		3
				31
SUMMER SESSION				
NURM 120	LPN Transition Course **	7.5	7.5	4
				7
FIRST SEMESTER				
NURM 221	Nursing III	4.5	13.5	9
Elective	Humanities	3		3
				12
SECOND SEMESTER				
NURM 222	Nursing IV	4.5	13.5	9
Elective	Humanities	3		3
				12
Nursing Credits:				38
General Education Credits:				37
Total:				75

* Transfer limits: BIO sciences must have been taken within the last five years
CHE sciences must have been taken within the last ten years

** These 4 credits are held in escrow and upon passing NURM 120, advanced standing is awarded for
NURM 100 - 1 credit
NURM 119 - 3 credits
NURM 121 - 8 credits
NURM 122 - 8 credits



TRINITAS SCHOOL OF NURSING

ASSOCIATE IN SCIENCE DEGREE

Students interested in receiving additional information about Trinitas School of Nursing or receiving an application should contact Union County College. The Cranford campus number is 908-709-7518; the Elizabeth campus phone number is 908-965-6050. Additional information is also available at www.ucc.edu/go/trinitas.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate the role of the nurse within a variety of health care settings.
- Act as a client advocate by recognizing the uniqueness and dignity of individuals, families, and groups by providing culturally competent care.
- Utilize the nursing process to provide safe, competent, contemporary care to individuals, families, and groups of diverse cultural backgrounds.
- Engage in the continuous process of life-long learning and development within a dynamic society.
- Demonstrate accountability by adhering to ethical guidelines and legal standards in the practice of nursing.
- Teach practices related to the prevention of illness and the promotion and restoration of health to individuals, families and groups.
- Collaborate with interdisciplinary team members to facilitate the highest level of health for individuals, families and groups.
- Utilize effective interpersonal, verbal, non-verbal and written skills when interacting with individuals, families and groups.
- Demonstrate competence and accountability in using current technology to communicate and manage client information in the planning and provision of nursing care.
- Employ clinical decision making/critical thinking in nursing.
- Contribute to continuous improvement of the health care system.

AFTER UNION COUNTY COLLEGE

Graduates of these programs can either work in the Nursing/Health professions or continue their educational pursuits.



GENERAL INFORMATION

CURRICULUM AND CURRICULUM DESIGNS:

Fully accredited by the National League for Nursing Accrediting Commission, Inc., and the New Jersey State Board of Nursing, the program offers a basic course of study in nursing. It provides a sound theoretical base of knowledge in nursing, biological, behavioral and social sciences and integrates this knowledge into academic and practical experiences within the health and illness continuum of client care. Utilization of a variety of health care agencies facilitates the application of all aspects of the students' learning. The curriculum has many options from which to select in order to complete the program of study.

MATRICULATION:

Students may matriculate as full-time or part-time students in the Generic or LPN to RN division. A student who pursues a minimum of 12 credit hours of academic work per semester is classified as full-time. A student who pursues less than 12 credit hours of academic work per semester is classified as part-time.

Generic students have a maximum of six years to complete the nursing program from the time of acceptance and three and one half years from the time they enroll in NURE 130. LPN to RN students have a maximum of three years to complete the program from the time they enroll in NURE 211/212.

GENERIC PROGRAM:

The courses in the generic program are offered during the day, evening, and weekend time frames. Students have the option of taking day, evening and weekend college courses simultaneously.

General education, science, and humanities courses may be taken at the Elizabeth, Plainfield or Cranford campuses of Union County College while nursing courses are offered at the School of Nursing on the Elizabeth campus. All students are subject to the same school policies and academic regulations.

RN COMPLETION PROGRAM FOR LICENSED PRACTICAL NURSES

The RN completion evening division is specifically designed for Licensed Practical Nurses who wish to further their nursing education within a realistic time frame. Custom designed courses build on existing knowledge,

skills, and strengths and provide an opportunity to pursue career goals without undue repetition of previous learning.

GRADUATES OF THE PROGRAM

Graduates of the program are eligible to take the National Council Licensing Examination (NCLEX) for registered nurse licensure. Upon licensure graduates may seek employment in the nursing/ health care field or continue their educational pursuits.



ADMISSION REQUIREMENTS

Generic Program:

- Graduation from an accredited high school or a Graduate Equivalency Diploma (GED)
- High school biology and chemistry
- Completion of College Placement test

LPN to RN Program:

- Graduation from an approved School of Practical Nursing
- Current LPN License
- Completion of College Placement test
- GPA 2.5

Curriculum Designs:

Keyboarding and computer skills are required competencies prior to entrance into the first nursing course NURE 130 effective January 2014 and entrance into NURE 111/112 in the LPN-to-RN program effective September 2014.

ADM 110 - Keyboarding and Computer Skills in Nursing, is a course offered to assist students to develop these competencies.

A challenge examination is available for ADM 110. Students should be proficient in keyboarding and the current version of Word and PowerPoint. Challenge examinations are given once a month with additional dates two weeks prior to the start of every semester.

Refer to the Challenge Examination section in the Union County College catalog for the challenge examination policy. For examination dates and additional information regarding the ADM 110 challenge examination, please call Professor Belmonte at 908-709-7095.

Effective January 2014 only PSY 204 will be accepted as a graduation requirement. Prior to January 2014 either PSY 204 or PSY 205 will be accepted for graduation.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills
requirements and prerequisites

GENERIC CURRICULUM

DAY AND EVENING DIVISIONS

NURE 130 is offered during the Fall, Spring, and Summer Sessions. NURE 131, 132, 231, and 232 are offered during the Fall and Spring semesters.

FIRST SEMESTER

COURSE#	COURSE	LEC.	LAB	CR.
BIO 105	Anatomy and Physiology I	3	3	4
CHE 105	Chemistry for Health Sciences (or Che 113*-Inorganic)	3	3	4
ENG 101	English Composition I	3	1	3
NURE 130	Nursing Trends and Concepts	4		4
TOTAL CREDITS				15

SECOND SEMESTER:

COURSE#	COURSE	LEC.	LAB	CR.
BIO 106	Anatomy and Physiology II	3	3	4
PSY 101	General Psychology	3		3
NURE 131	Nursing I	4	12	8
TOTAL CREDITS				15

THIRD SEMESTER:

COURSE#	COURSE	LEC.	LAB	CR.
BIO 108	Microbiology	3	3	4
PSY 204	Human Life Span Development	3		3
NURE 132	Nursing II	4	12	8
TOTAL CREDITS				15

FOURTH SEMESTER:

COURSE#	COURSE	LEC.	LAB	CR.
ENG 102	English Composition II	3	1	3
SOC 101	Principles of Sociology	3		3
NURE 231	Nursing III	4	12	8
TOTAL CREDITS				14

FIFTH SEMESTER:

COURSE#	COURSE	LEC.	LAB	CR.
NURE 232	Nursing IV	5	15	10
HUMANITIES	Elective	3		3
HUMANITIES	Elective	3		3
TOTAL CREDITS				16

CREDIT ALLOCATION: Nursing	38
General Education	37
**TOTAL	75

*CHE113/114 recommended for students considering BSN/MSN study. Complete CHE 114 prior to NURE 211/232 and if CHE 113 is taken.

**79 credits if CHE 113/114 are completed

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills
requirements and prerequisites

LPN TO RN CURRICULUM

RN COMPLETION PROGRAM FOR LPNS:

NURE courses are offered in the evening in this division.

COURSE#	COURSE	LEC.	LAB	CR.
PREREQUISITES				
BIO 105	Anatomy & Physiology I	3	3	4
BIO 106	Anatomy & Physiology II	3	3	4
BIO 108	Microbiology	3	3	4
CHE 105	Chemistry for the Health Sciences (or CHE 113/114*)	3	3	4
ENG 101	English Composition I	3		3
ENG 102	English Composition II	3		3
PSY 101	General Psychology	3		3
PSY 204	Human Life Span Development	3		3
SOC 101	Principles of Sociology Humanities	3 6		3 6
ADM 110	Keyboarding and Computer Skills for Nursing*** Licensed Practical Nurse Curriculum	1	3	2 12

FIRST SEMESTER:		FALL SEMESTER ONLY		
COURSE#	COURSE	LEC.	LAB	CR.

NURE 211	Bridge to Professional Nursing Core Concepts	3		3
NURE 212	Health and Physical Assessment	2	6	4

SECOND SEMESTER:		SPRING SEMESTER ONLY		
COURSE#	COURSE	LEC.	LAB	CR.

NURE 250	Nursing Care of the Client with a Medical/ Surgical Health Deviation	3	9	6
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THIRD SEMESTER:		SUMMER SESSION		
COURSE#	COURSE	LEC.	LAB	CR.

NURE 260/270	Nursing Care of Children and their Families and Nursing Care of Women and the Childbearing Family	3	9	6
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FOURTH SEMESTER:		FALL SEMESTER ONLY		
COURSE#	COURSE	LEC.	LAB	CR.

NURE 280/290	Nursing Care of the Client with Mental Illness and Nursing Care of the Client with a Complex Multi-System Medical-Surgical Health Deviation	3	9	6
NURE 291	Leadership and Management Seminar	1		1

CREDIT ALLOCATION: Nursing	38
General Education	37
**TOTAL	75

ALL BUY-BACK CREDITS ARE TO BE COMPLETED PRIOR TO REGISTERING FOR NURE 211-212 for the LPN to RN student and NURE 232 for the generic student.

A minimum of six (6) students must be registered in order to run a section of a clinical nursing course. Exceptions may be made for NURE 232 and NURE 290/NURE 291.

For BSN study, CHE 113,114; MAT 127; and HIS 101, 102 are recommended.

*** Required as of September 2014

OFFICE PROFESSIONAL

CERTIFICATE

The Office Professional certificate program upgrades a student's skills necessary to survive in the ever-changing office. The program provides a strong background in technology courses using up-to-date software. Prior to entering the program, students must have successfully completed English Composition and Keyboarding. Challenge exams are available for keyboarding. A CLEP exam may be taken for English.

Upon successful completion of all program requirements, graduates will be able to:

- Use critical thinking and problem-solving skills;
- Display professional communication skills;
- Communicate effectively using E-mail and the Internet;
- Use beginning/advanced features of MS Word;
- Use beginning/advanced features of MS Excel;
- Use beginning/advanced features of MS PowerPoint;
- Use additional application packages.

This certificate is designed for people who need to update their computer application skills. Upon completion of this certificate the student may apply these credits toward the Business Management A.A.S. degree or the Administrative Support/Information Processing A.A.S. degree.



AFTER UNION COUNTY COLLEGE

Graduates can enter the workforce or the Business Management or Administrative Support degree programs.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

COURSE#	COURSE	LEC.	LAB	CR.
ADM 213	Word I	2	3	3
CIS 115	Excel I	2	2	3
CIS 117	PowerPoint	2	2	3
CIS 120	The Internet	2	2	3
Elective	Technical **			3
Total Program Credits:				15

**Choose from the following technical electives:

- CIS 116 Access
- CIS 106 JAVA Programming
- CIS 130 Introductory Visual Basic
- ADM 135 Proofreading & Editing Skills
- ADM 214 Word II

Program Prerequisites:

- ENG 101 English Comp I
- ADM 101 Keyboarding for the Computer

PARALEGAL STUDIES

ASSOCIATE IN APPLIED SCIENCE DEGREE

As defined by the American Bar Association, "A paralegal is a person qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible."



The paralegal studies program at Union County College is designed to prepare graduates for a variety of paralegal job opportunities. The utilization of paralegals improves the efficiency, economy and availability of legal services. A paralegal performs substantive legal work under the direct supervision of an attorney.

Paralegals may not provide legal services directly to the public, except as permitted by law.

The Associate in Applied Science Degree Option will prepare students to enter the paralegal work force with the requisite skills or to transfer to a four-year institution to complete their baccalaureate degree.

Upon successful completion of all program requirements, graduates will be able to:

- Examine the roles played by paralegals in the American legal system, particularly the ethical regulations concerning the practice of law;
- Demonstrate critical thinking and problem solving skills;
- Effectively communicate with others in a diverse society, maintaining a professional manner and client confidence;
- Conduct legal research and other fact-gathering activities including client interviews and investigations using current and emerging technologies;
- Demonstrate the ability to write clearly and accurately according to the standards of the legal profession;
- Recognize the similarities and differences among the general areas of law;
- Discuss the basic tenets of the diverse subjects of law, define the legal terms related to these areas, and prepare the documents related to these specialties;
- Analyze and evaluate the relevant legal issues presented in various fact patterns;
- Prepare various documents in preparation for litigation and post-trial practice;
- Incorporate computer technology in law office management and data compilation systems.

AFTER UNION COUNTY COLLEGE

This program is designed to prepare the graduate to enter the workforce as a paralegal working under the supervision of a lawyer or to transfer to a four-year institution to complete a baccalaureate degree.

Transfer Policy: Prospective students may transfer no more than 30 credits, and no more than 12 credits of legal specialty courses into the Associates in Applied Science degree program, and only with the approval of the Program Director.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
LGL 101	Intro to Paralegal Studies	3		3
LGL 110	Legal Research	3		3
ENG 101	English Comp I	3	1	3
CIS 100	Intro to Computer Applications	2	2	3
MAT 113	Math Applications (or higher) ¹			3-4
				15-16

SPRING SEMESTER				
LGL 120	Contract Law	3		3
LGL 111	Legal Writing	3		3
ENG 102	English Comp II	3	1	3
LGL 140	Property Law	2	2	3
Elective	Social Science	3		3
				15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
LGL 210	Tort Law	3		3
ENG 128	Dynamics of Communication	3		3
LGL 220	Litigation I	3		3
ECO 105	Basic Economics OR			
ECO 201	Principles of Economics I OR			
ECO 202	Principles of Economics II	3		3
LGL	Elective	3		3
				15

SPRING SEMESTER				
GOV 201	American Govt. & Politics or			
GOV 202	American National Govt	3		3
Elective	Humanities	3		3
LGL 240	Business Organizations	3		3
LGL 221	Litigation II	3		3
LGL 215	Law Office Technology	2	2	3
LGL	Elective	3		3
				18

Total Program Credits: 63-64

LEGAL ELECTIVES:

LGL 230	Family Law			
LGL 231	Criminal Law			
LGL 235	Wills, Trusts, and Estates			
LGL 250	Bankruptcy Law			
LGL 260	Employment Law			
LGL 270	Immigration Law			
LGL 290	Paralegal Internship			

¹ MAT119 may be required to transfer to certain four-year programs. Students interested in possible transfer should seek academic advising.

Puzzled by Prerequisites?

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You **MUST** take and pass all prerequisites.

PARALEGAL STUDIES

CERTIFICATE OF ACHIEVEMENT

As defined by the American Bar Association, "A paralegal is a person qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible."

The paralegal studies program at Union County College is designed to prepare graduates for a variety of paralegal job opportunities. The utilization of paralegals improves the efficiency, economy and availability of legal services. A paralegal performs substantive legal work under the direct supervision of an attorney.

Paralegals may not provide legal services directly to the public, except as permitted by law.

The Certificate of Achievement Program Option will prepare students who have already earned a college degree to work as paralegals.

Upon successful completion of all program requirements, graduates will be able to:

- Examine the roles played by paralegals in the American legal system, particularly the ethical regulations concerning the practice of law;
- Demonstrate critical thinking and problem solving skills;
- Effectively communicate with others in a diverse society, maintaining a professional manner and client confidence;
- Conduct legal research and other fact-gathering activities including client interviews and investigations using current and emerging technologies;
- Demonstrate the ability to write clearly and accurately according to the standards of the legal profession;
- Recognize the similarities and differences among the general areas of law;
- Discuss the basic tenets of the diverse subjects of law, define the legal terms related to these areas, and prepare the documents related to these specialties;
- Analyze and evaluate the relevant legal issues presented in various fact patterns;
- Prepare various documents in preparation for litigation and post-trial practice;
- Incorporate computer technology in law office management and data compilation systems.

AFTER UNION COUNTY COLLEGE

This program is designed to prepare the graduate to enter the workforce as a paralegal working under the supervision of a lawyer.

Transfer Policy: Prospective students may transfer no more than 9 credits of legal specialty courses into the Certificate of Achievement program, and only with the approval of the Program Director.

RECOMMENDED SEQUENCE

This certificate program is only open to students who have completed an Associate or Bachelor degree (any major) that includes at least 18 credits of general education courses.

FALL SEMESTER

COURSE#	COURSE	LEC.	LAB	CR.
LGL 101	Introduction to Paralegal Studies	3	0	3
LGL 110	Legal Research	3	0	3
LGL 111	Legal Writing	3	0	3
LGL 120	Contract Law	3	0	3
LGL 220	Litigation I	3	0	3
				15

SPRING SEMESTER

COURSE#	COURSE	LEC.	LAB	CR.
LGL 140	Property Law	2	2	3
LGL 221	Litigation II	3	0	3
LGL 215	Law Office Technology	2	2	3
	Legal Elective	3	0	3
				12

Total Program Credits: 27

LEGAL ELECTIVES:

LGL 210	Tort Law
LGL 230	Family Law
LGL 231	Criminal Law
LGL 235	Wills, Trusts, and Estates
LGL 240	Business Organizations
LGL 250	Bankruptcy Law
LGL 260	Employment Law
LGL 270	Immigration Law
LGL 290	Paralegal Internship

PARAMEDIC EMERGENCY HEALTH SCIENCE

ASSOCIATE IN APPLIED SCIENCE

The Paramedic Program is intended for students who are interested in helping and treating patients to the highest level of care outside of the hospital. Prospective students should have interest in pathophysiology of disease, mathematic competence and be able to function effectively in a dynamic work environment.

A Paramedic must be a confident leader who can accept the challenge and high degree of responsibility entailed in the position. They must have excellent judgment and be able to prioritize decisions and act quickly in the best interest of the patient. In addition, paramedics must be self disciplined, able to develop patient rapport and utilize communication unique to diverse multicultural groups and ages within those groups and function independently at an optimum level in a non-structured environment that is constantly changing.

The program meets or exceeds the National Standard Curriculum set forth by the US Department of Transportation and adheres to New Jersey State Paramedic Regulations NJAC 8:41 and 8:41A. The program is approved and sanctioned by the New Jersey Department of Health and Human Services – Office of Emergency Medical Services www.state.nj.us/health/ems/.

The Paramedic Degree Program is intended for prospective students that have not obtained an academic degree.

Prospective students must meet the following requirements to be accepted into the degree program:

- Have a current New Jersey EMT and Health Care Provider CPR certification
- Have a New Jersey Drivers License with clean record

PMD course enrollment requires successful completion of:

- A minimum of 9 credits of general education which includes completion of ENG 101. Credits must be obtained from an accredited academic institution.
- All remedial math courses.
- Obtaining hospital sponsorship from a New Jersey Department of Health approved Mobile Intensive Care Unit Hospital. Students apply directly to the hospital to obtain sponsorship. All students should refer to the program website for the specific application process www.ucc.edu/go/medic
- There are 2 applications required for acceptance into the Paramedic Degree

Program. The first application is submitted to the college. The second application is submitted to obtain hospital sponsorship which is sent directly to the clinical site. The program application, directions and timeline for submission can be obtained from the Paramedic Program website www.ucc.edu/go/medic. The second application should be submitted when all of the academic requirements are met.

- Once a student has been accepted by a hospital for sponsorship, there is a mandatory orientation session held in May. The exact date will be provided upon offering of sponsorship by a clinical site. There is no makeup session for this mandatory session.
- Students are required to submit a clear criminal background check, demonstration of vaccination status, proof of two step PPD skin test, and clean 5 panel drug screen results at orientation. The fees associated with these tests are paid by the student.
- There is a 300 dollar sponsorship fee which is paid directly to the clinical site upon acceptance of sponsorship.
- The Paramedic Program does not adhere to the published college calendar. Students should refer to the course syllabi for exact meeting dates and times.
- There is a Paramedic Program Standard Operating Procedure (SOP) Manual which has policies that supersede the Union County College Student Handbook.

Upon successful completion of the paramedic program graduates will be able to:

- Meet the minimum requirements for eligibility to sit for the paramedic National Registry of Emergency Medical Technicians (NREMT) paramedic exam and become licensed as a paramedic, enabling the student to be eligible for licensure in New Jersey.
- Perform competently in the roles and responsibilities outlined in the New Jersey state paramedic scope of practice.
- Obtain employment as an entry-level paramedic with an EMS agency in New Jersey.
- Manage pre-hospital patient care based on appropriate emergency medicine and paramedic science.
- Demonstrate critical thinking in decision-making processes to improve the health and welfare of pre-hospital patients.

AFTER UNION COUNTY COLLEGE

Graduates of our program will obtain national and New Jersey Paramedic License making the graduate eligible for employment at a Paramedic service nationally. Graduates can transfer to a 4 year institution for continuation of a bachelor's degree.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

GENERAL EDUCATION COURSES

COURSE#	COURSE	LEC.	LAB	CR.
ENG 101	English Comp I	3	1	3
BIO 105	Anatomy and Physiology I	3	3	4
BIO 106	Anatomy and Physiology II	3	3	4
ENG 102	English Comp II or	3	1	3
ENG 122	Introductory Technical & Business Writing or	3		3
ENG 128	Dynamics of Communication	3		3
MAT 119	Algebra	4		4
PSY 101	General Psychology	3		3
Total				21

PARAMEDIC COURSES

FIRST SEMESTER				
PMD 106	Paramedic I**	7		7
PMD 107	Paramedic Procedures I**	6		6
				13
SECOND SEMESTER				
PMD 108	Paramedic II			10
PMD 109	Paramedic Procedures II			9
				19
THIRD SEMESTER				
PMD 201	Paramedic Clinical I			9
				9
FOURTH SEMESTER				
PMD 205	Paramedic Field Internship			9
				9
Total Program Credits:				71

NOTES:

* For specific course transferability please contact the Program Director

** Enrollment in PMD 106 and PMD 107 requires successful completion of ENG 101, an additional 6 credits of general education coursework, and completion of all remedial Math Coursework. In addition, students must have sponsorship from a clinical hospital site.

***All of the general education courses listed must be completed to receive AAS degree

Paramedic Courses must be taken together and in the order listed

PARAMEDIC

CERTIFICATE

The Paramedic Program is intended for students who are interested in helping and treating patients to the highest level of care outside of the hospital. Prospective students should have interest in pathophysiology of disease, mathematic competence and be able to function effectively in a dynamic work environment.

A Paramedic must be a confident leader who can accept the challenge and high degree of responsibility entailed in the position. They must have excellent judgment and be able to prioritize decisions and act quickly in the best interest of the patient. In addition, paramedics must be self disciplined, able to develop patient rapport and utilize communication unique to diverse multicultural groups and ages within those groups and function independently at an optimum level in a non-structured environment that is constantly changing.

The program meets or exceeds the National Standard Curriculum set forth by the US Department of Transportation and adheres to New Jersey State Paramedic Regulations NJAC 8:41 and 8:41A. The program is approved and sanctioned by the New Jersey Department of Health and Human Services – Office of Emergency Medical Services www.state.nj.us/health/ems/.

The Paramedic Certificate Program is intended for prospective students that have obtained an academic degree.

PARAMEDIC CERTIFICATE PROGRAM ENTRANCE REQUIREMENTS:

Prospective students must meet the following requirements to be accepted into the program:

- Obtain hospital sponsorship from a New Jersey Department of Health approved Mobile Intensive Care Unit Hospital. Students apply directly to the hospital. All students should refer to the program website for specific application process www.ucc.edu/go/medic
- Have a current New Jersey EMT and Health Care Provider CPR certification
- Have a New Jersey Drivers License with clean record
- Show successful completion of a minimum of 9 credits of general education which includes completion of ENG 101. Credits must be obtained from an accredited academic institution.
- Successful completion of all remedial math courses.

Further Paramedic Certificate Program Information:

- There are 2 applications required for acceptance into the Paramedic Program. The first application is sent directly to the clinical site to obtain hospital sponsorship. The program application, directions and timeline for submission can be obtained from the Paramedic Program website www.ucc.edu/go/medic. The second application is for acceptance to the college which is completed at a mandatory orientation session.
- The mandatory orientation session is held in May. The exact date will be provided upon acceptance of sponsorship by a clinical site. There is no makeup session for this mandatory orientation session.
- Students are required to submit a clear criminal background check, demonstration of vaccination status, proof of two step PPD skin test, and clean 5 panel drug screen results at orientation. The fees associated with these tests are paid by the student.
- There is a 300 dollar sponsorship fee which is paid directly to the clinical site upon acceptance of sponsorship.
- The Paramedic Program does not adhere to the published college calendar. Students should refer to the course syllabi for exact meeting dates and times.
- There is a Paramedic Program Standard Operating Procedure (SOP) Manual which has policies that supersede the Union County College Student Handbook.

Upon successful completion of the paramedic program graduates will be able to:

- Meet the minimum requirements for eligibility to sit for the paramedic National Registry of Emergency Medical Technicians (NREMT) paramedic exam and become licensed as a paramedic, enabling the student to be eligible for licensure in New Jersey.
- Perform competently in the roles and responsibilities outlined in the New Jersey state paramedic scope of practice.
- Obtain employment as an entry-level paramedic with an EMS agency in New Jersey.
- Manage pre-hospital patient care based on appropriate emergency medicine and paramedic science.
- Demonstrate critical thinking in decision-making processes to improve the health and welfare of pre-hospital patients.

AFTER UNION COUNTY COLLEGE

Graduates of our program will obtain national and New Jersey Paramedic License making the graduate eligible for employment at a Paramedic service nationally.

RECOMMENDED SEQUENCE PARAMEDIC PROGRAM CERTIFICATE

based on satisfaction of all Basic Skills requirements and prerequisites

GENERAL EDUCATION COURSES

9 CREDITS OF GENERAL EDUCATION COURSES*

ENG 101	English Comp I	3	1	3
PLUS 6 CREDITS FROM THE FOLLOWING LIST:				
BIO 105	Anatomy and Physiology I	3	3	4
BIO 106	Anatomy and Physiology II	3	3	4
ENG 102	English Comp II or	3	1	3
ENG 122	Introductory Technical & Business Writing or	3		3
ENG 128	Dynamics of Communication	3		3
MAT 119	Algebra	4		4
PSY 101	General Psychology	3		3
Total				9

PARAMEDIC COURSES

FIRST SEMESTER				
PMD 106	Paramedic I**	7		7
PMD 107	Paramedic Procedures I**	6		6
				13
SECOND SEMESTER				
PMD 108	Paramedic II			10
PMD 109	Paramedic Procedures II			9
				19
SEMESTER 3				
PMD 201	Paramedic Clinical I			9
				9
SEMESTER 4				
PMD 205	Paramedic Field Internship			9
				9
Total Program Credits:				59

* For specific course transferability please contact the Program Director for approval.

** Enrollment in PMD 106 and PMD 107 requires successful completion of ENG 101, an additional 6 credits of general education coursework, and completion of all remedial Math Coursework. In addition, students must have sponsorship from a clinical hospital site.

Paramedic Courses must be taken together and in the order listed

PROGRAMS OF STUDY

PHOTOGRAPHY/FINE ARTS

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The Fine Arts Option in Photography is a Liberal Arts transfer-oriented curriculum that provides students, through a core of visual arts/photography-related courses, a theoretical and practical understanding of the artistic and commercial areas of photography. Utilizing skills and techniques learned through a combined lecture/studio/darkroom experience, students are taught the basics of black and white, color photography, and the history of photography which are applicable to the commercial and artistic environments.

A large component of this program focuses on developing studio photography skills, including darkroom techniques, standard and large format camera usage, studio lighting, theoretical and historical applications, and comprehensive portfolio development.

Upon successful completion of all program requirements, graduates will be able to:

- Apply general picture-taking skills including f/stop, shutter speed, and depth of field control.
- Process black and white negatives and color and black and white prints.
- Utilize darkroom and studio equipment including strobes, large format cameras, and light meters.
- Analyze issues of photographic practice.
- Communicate effectively about art both orally and in writing.
- Create a portfolio that demonstrates competency in photography.



AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Is a 4-year degree in your future?

An Associate of Arts (A.A.) or Associate of Science (A.S.) degree from Union County College is **fully transferable** as the first two years of a baccalaureate degree program at **any** New Jersey public four-year institution under the Comprehensive State-Wide Transfer Agreement.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
	Modern Language	3		3
MAT 119	Algebra	4		4
FIA 108	Art Appreciation	3		3
				16
SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
	Modern Language	3		3
	Laboratory Science	3	3	4
FIA 221	Introduction to Photography	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG	200-Level Literature course	3		3
PSY 101	General Psychology	3		3
MAT 127	Elementary Statistics or Laboratory Science			4
FIA 222	Fundamentals of Black & White Photography	3		3
FIA	Diversity Course*	3		3
				16
SPRING SEMESTER				
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
PSY 102	Psychology of Personality	3		3
FIA 223	Introduction to Color Photography	3		3
FIA 225	Fundamentals of Digital Imaging **	3		3
BUS 203	Principles of Advertising	3		3
GOV 202	American National Govt or			
PHI 205	Intro to Philosophy	3		3
				18
Total Program Credits:				66

* Students can take the FIA 105, FIA 111, FIA 112 or FIA 117 to fulfill the Fine Arts Diversity course requirement.

** Students who take FIA 225 Fundamentals of Digital Imaging must take FIA 224 Intro to Digital Imaging or receive permission of the instructor.

PHYSICAL THERAPIST ASSISTANT

ASSOCIATE IN APPLIED SCIENCE DEGREE

This is a 68-credit Associate in Applied Science degree program accredited by the Commission on Accreditation in Physical Therapy Education. It is designed to prepare individuals for employment in physical therapy settings under the supervision of a Physical Therapist. Graduates are eligible to take the national licensure examination necessary for practice as a licensed Physical Therapist Assistant (PTA).

Course work prepares the student to perform basic physical therapy procedures and should not be considered as a direct vehicle of study towards an entry-level physical therapy academic program. The program demands that students attend classes full-time during the day. Hours for clinical practice may vary and travel to the clinical setting is the responsibility of the student.

See paragraphs "Qualifications for Admission to Degree Programs" and "Admission Requirements for Health Technologies" for desired high school background and admissions information (see page 11).

Specific goals of the program:

- To prepare individuals for employment in physical therapy settings under the supervision of a Physical therapist.
- To work under the supervision of a physical therapist in an ethical, legal, safe and effective manner.
- To provide, in addition to general education and basic science courses, a combination of didactic and clinical learning experiences offered in an integrated and sequential manner to assure entry level proficiency.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate critical thinking and problem solving skills in the health care setting using appropriate measurement and assessment techniques using the knowledge of indications and contraindications of the disease process.
- Appropriately observe and report important patient responses by recognizing abnormal and normal responses to interventions and by recognizing the need for intervention modification in response to observations.
- Understand the rights and responsibilities of returning the individual with a disability as a functioning member within the community, using knowledge of the federal regulations regarding Americans with Disabilities.

- Display basic competency in carrying out interventions by obtaining necessary medical information, organizing the intervention programs, altering the interventions appropriately, and by demonstrating knowledge of indications and contraindications in the patient care.
- Communicate effectively with the supervising therapist, appropriate medical personnel, families and patients, using appropriate oral and written medical terminology and recording this information in the patient record.
- Demonstrate awareness of the current social, political and economic aspects of health care by demonstrating appropriate assessment of the treatment plan's effectiveness and timely recommendation for the reevaluation of the patient by the physical therapist.
- Perform appropriate measurement and assessment techniques within the knowledge and limits of practice to assist the supervising physical therapists in monitoring and modifying the plan of care.
- Be critical consumers of the literature through critical analyzes and discussion.
- Be an active contributor in the health care system and community.
- Accept responsibility for continuous professional development.

AFTER UNION COUNTY COLLEGE

Graduates are eligible to take the Licensure Examination necessary for practice as a Licensed Physical Therapist Assistant.

There is a limit to the number of seats available in the clinical phase of the PTA program. All students must complete a PTA Program Entrance Form prior to starting the clinical phase of the program. All students must complete 25 hours of volunteer work or work-related experience and must obtain a reference on the PTA Program Reference Form. Both of these forms are available from the Director of Student Services Plainfield, or program website, and must be returned to the PTA Program no later than October 31.

Please note that it is always beneficial for students to complete additional non-clinical courses prior to the first semester of the clinical phase, thereby making the summer course load more manageable. Please meet with a counselor in Student Services for counseling on course selection.

If necessary, the Program Coordinator and the PTA Program Admissions Committee will make the final determination for admission to the program based on the professional reference and a written essay or interview.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

PRE-CLINICAL PHASE

COURSE#	COURSE	LEC.	LAB	CR.
PREREQUISITE COURSE WORK				
ENG 101	English Comp I*	3	1	3
BIO 105	Anatomy & Physiology I*+	3	3	4
MAT 119	Algebra*	4		4
PSY 101	General Psychology*	3		3
PSY 212	Psychology of Adulthood and Aging*	3		3
				17

CLINICAL PHASE

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER (SPRING)				
PTA 115	Functional Anatomy	3	3	4
PTA 130	PT Procedures I	3	13	7
PTA 251	Independent Living	2		2
				13

SUMMER SESSION I

ENG 102	English Comp II**	3	1	3
PTA 140	PT Procedures II	2	3	3
				6

SUMMER SESSION II

BIO 106	Anatomy & Physiology II+	3	3	4
				4

SECOND SEMESTER (FALL)

PTA 217	Clinical Seminar & Practice I	3	16	7
PTA 220	PT Procedures III	4	6	6
PTA 221	PT Procedures IV	3	3	4
				17

THIRD SEMESTER (SPRING)

PTA 223	Clinical Seminar II	3		3
PTA 224	Clinical Practice II		40	9
				12

Total Program Credits (including all prerequisite course work) 69

* Prerequisite (pre-clinical phase) course work must be passed with a grade of "C" or higher.

** English 102 may be completed during the winter session [before first semester (Spring)]. English 102 must be completed prior to beginning the second semester (Fall).

+ Students will only be permitted to take BIO 105 or BIO 106 two times. Students who are not able to pass these courses with a "C" or better on the second attempt, will not be eligible to register for the clinical phase of the program.

All course work in the clinical phase of the PTA program must be passed with a grade of "C+" or better.

PRACTICAL NURSING

CERTIFICATE

The Practical Nursing Program at Union County College is a four semester program leading to a Certificate. Nursing courses are offered during the day and on an evening/weekend schedule. College courses may be taken during the day, evening or weekend hours, or as distance education offerings, as available. For all students, clinical rotations may be provided during the day, evening and/or weekend hours in order to obtain optimum client care experiences.

The curriculum incorporates theoretical knowledge from the biological and social sciences into the nursing framework. Students are able to apply information acquired in the classroom and skills laboratory to clinical client care experiences.

The program has received accreditation from the New Jersey Board of Nursing through 2014 and from the National League for Nursing Accrediting Commission (NLNAC) through 2011. An NLNAC accreditation visit is scheduled for October 2011 for renewal of status.

Applicants and current students may contact the Board of Nursing and NLNAC with inquiries regarding the nursing program.

New Jersey Board of Nursing

124 Halsey Street
PO Box 45040
Newark, NJ 07101
(973)504-6430
www.state.nj.us/lps/ca/medical/nursing.htm

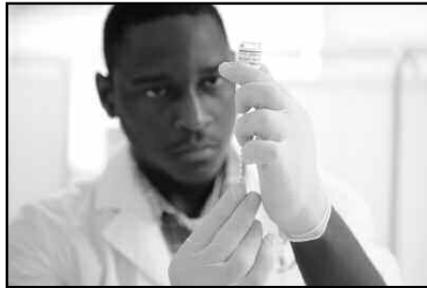
NLNAC

3343 Peachtree Td NE, Suite 500
Atlanta, Georgia 30326
Phone: (404)975-5000 Fax: (404)975-5020
www.nlnac.org

Graduates of this program are eligible to take the NCLEX-PN examination for Practical Nurse licensure. Licensed Practical Nurses provide client care in a variety of health care agencies under the direction of a Registered Nurse, and/or physician or dentist.

Students in the Practical Nursing program are required to have the following in order to participate in clinical nursing courses:

- Criminal background check clearance
- CPR certification for the Healthcare provider
- Malpractice insurance
- Completed health records
- Official uniform



Criminal History Background Check

All students enrolled in the Practical Nursing program are required to have a criminal history background check to participate in clinical care experiences. Background checks are mandated by all clinical agencies and must be completed prior to admission to the program. The background check is performed by Major Investigations, Inc. Please be aware that any history of criminal activity may prevent participation in clinical experiences at clinical affiliating agencies.

Each clinical affiliating agency will receive copies of any reports that indicate a criminal background. The clinical affiliating agencies will independently review these checks and, in their sole discretion, make a final decision as to whether each student will be allowed to participate in patient care activities at the clinical affiliating agency. If a student is denied clinical placement by any one clinical affiliating agency due to criminal history information, that student will not be admitted to the program or will be dropped from the program.

It is the students' responsibility to notify the nursing program of any change in their criminal history status.

Additional information about program enrollment, policies, and courses is available at: www.ucc.edu/go/practicalnursing

CURRICULUM OBJECTIVES: Upon successful completion of all program requirements, graduates will be able to:

- Provide holistic care to clients from diverse multi-cultural backgrounds, experiencing a variety of self-care needs, within the context of the nursing process.
- Collaborate with other members of the health care team.
- Demonstrate accountability by practicing nursing within a legal and ethical framework.
- Use effective verbal and written

communication skills when interacting with clients, families, and other members of the health care team.

- Assume accountability for personal and professional growth.
- Apply critical thinking in interactions with clients, families, and other members of the health care team.
- Incorporate contemporary knowledge and tools from nursing and the biological and social sciences into the care provided to clients at different developmental levels throughout the life span.

AFTER UNION COUNTY COLLEGE

Graduates of this program are eligible to take the NCLEX-PN examination for Practical Nurse Licensure. Articulation with RN programs is available for graduates who wish to continue their nursing education.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

COURSE#	COURSE	CLINICAL		
		LEC.	LAB	CR.
FIRST SEMESTER				
ENG 101	English Comp I	3	1	3
BIO 102	Human Biology	3	3	4
PSY 101	General Psychology	3		3
PNU 190	Nursing Concepts	4	3	5
				15
SECOND SEMESTER				
PNU 191	Adult Health I	7	9	10
	Elective (3 or 4 credits):			
	3 credit elective	3		3
	4 credit elective*	3	3	4
				13-14
THIRD SEMESTER				
PNU 210	Maternal, Pediatric, & Mental Health Nursing	6	9	9
PSY 205	Child Psychology	3		3
				12
FOURTH SEMESTER				
PNU 211	Adult Health II & Role Transition	8	12	12
				12
Total Program Credits:		52-53		

* Recommended courses:

BIO 105/106, BIO 108,
CHE 105 or CHE 113,
SOC 101, Humanities Electives

NOTE: PN courses are not offered in the evening/weekend during the summer.

PSYCHOLOGY

Option offered through Liberal Arts • ASSOCIATE IN ARTS DEGREE

This program is for those students who wish to transfer to a four-year institution and major in Psychology.

See paragraph on "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.
- Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.
- Understand, develop insights, and apply psychological principles to personal, social, and organizational issues.
- Weigh evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline.
- Demonstrate information competence, ability to use computers and other technology, and an ability to communicate effectively in a variety of formats.
- Recognize, understand, and respect the complexity of sociocultural and international diversity.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year degree program majoring in the Social Sciences or Liberal Arts, or other areas of interest and are eligible to take advantage of the many transfer/articulation agreements

Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
MAT 119	Algebra (or higher)	4		4
PSY 101	General Psychology	3		3
	Modern Language	3		3
				16
SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
MAT 127	Elementary Statistics	4		4
PSY 102	Psychology of Personality	3		3
	Electives Humanities	3		3
	Modern Language	3		3
				19

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 128	Dynamics of Communication or			
ENG 129	Public Speaking	3		3
SOC 101	Principles of Sociology	3		3
CIS 100	Intro to Computer Applications	2	2	3
PSY	200-Level Course	3		3
Elective	Gen. Ed. Humanities			3
				15
SPRING SEMESTER				
SOC 206	Minorities in American Life	3		3
PSY 213	Research Methods in Psychology	3		3
PSY	200 level elective	3		3
Elective	Laboratory Science	3	3	4
Electives	Humanities or PHI 205	3		3
				16
Total Program Credits:				66

It is suggested that electives be chosen from the following list:

PSY 204, 207, 208, 211, 212, 218, 219
 FIA 111, 112
 AST 101, 102
 GOV 201, 202, 205
 Modern Languages (all)
 SOC 102, 103, 203, 204, 207, 209, 273
 HIS 105, 106, 201, 202, 205, 209
 GEY 101, 102
 ECO 201, 202
 URS 101
 HUG 101
 Any 200 Level English Course



PSYCHOSOCIAL REHABILITATION AND TREATMENT

ASSOCIATE IN SCIENCE DEGREE

Psychosocial rehabilitation (PSR) is a comprehensive treatment strategy for meeting the needs of people with severe mental illnesses. PSR practitioners assist people in obtaining the skills, support and resources they will need to achieve success and satisfaction in their social, vocational, educational and independent living environments. The overall goals of this field are promotion of recovery, community integration, and improved quality of life for people coping with psychiatric disabilities. There are ample career opportunities for PSR practitioners in a variety of rehabilitation programs and community mental health settings. The knowledge and skills of the PSR practitioner qualify him/her to provide supportive counseling, case management services, and vocational rehabilitation interventions. The practitioner is also prepared to facilitate skills training groups as well as psycho-education and support groups.



UMDNJ-SHRP'S PROGRAM

The UMDNJ School of Health Related Professions had the first undergraduate degree-granting program in this field in New Jersey. It is one of the few model programs of this type throughout the nation. Students in this program will complete two clinical placements at sites such as UMDNJ-UBHC, Bridgeway, Collaborative Support Programs of NJ, Project Live, and others.

DEGREE REQUIREMENTS:

Requirements for admission to the Union County College general education phase of the program are: High School graduation or equivalent diploma (GED); English as a Second Language (ESL) placement test if required and completion of ESL courses if necessary; and completion of any necessary remedial courses as determined by the New Jersey Basic Skills Test.

To qualify for admission to the professional phase of the program offered by UMDNJ, students must complete 21 credits of their Union County College general education requirements (including ENG 101, ENG 102) and UPR 101. A minimum GPA of 2.5 is also required.

In order to successfully complete this program, the student will be required to take the following courses. BE SURE TO CONFER WITH A Union County College OR UMDNJ COUNSELOR WHEN PLANNING YOUR COURSE SCHEDULE.

GENERAL EDUCATION REQUIREMENTS – 32 CREDITS

ENG 101 English Comp I
 PSY 101 General Psychology
 CIS 100 Intro to Computer Applications
 MAT 119 Algebra
 SOC 101 Principles of Sociology
 BIO 102 Human Biology
 ENG 102 English Comp II
 PSY 207 Social Psychology
 PHI 205 Intro to Philosophy
 ENG 128 Dynamics of Communication or
 ENG 129 Public Speaking

UMDNJ REQUIREMENTS – 3 CREDITS

UPR 101 Intro to Psychosocial Rehabilitation - taken prior to entering professional phase

AFTER UNION COUNTY COLLEGE

Graduates may transfer to Kean University, Georgian Court University, or Felician College which offer a Joint Bachelor's Degree Program in Psychology & Psychiatric Rehabilitation with the UMDNJ School of Health Related Professions.

RECOMMENDED SEQUENCE
 based on satisfaction of all Basic Skills requirements and prerequisites

PROFESSIONAL PHASE OF PROGRAM

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER				
PSRT 1102	Communication Techniques- Interviewing & Counseling*	2	2	3
PSRT 1103	Intro to Group Dynamics*	2	2	3
PSRT 1204	Clinical Principles in Psychosocial Rehabilitation*	2		3
				9
SECOND SEMESTER				
PSRT 1019	Clinical Practicum in Psychosocial Rehabilitation I*	3		6
PSRT 2121	Community Resource Management*	3		3
				9
THIRD SEMESTER				
PSRT 2019	Clinical Practicum in Psychosocial Rehabilitation II*	3		6
PSRT 2231	Emerging Topics in Psychosocial Rehabilitation*	3		3
				9
Total Program Credits:				62

* Students register through UMDNJ for PSRT courses and pay UMDNJ Undergraduate tuition rate and fees.

A total of 62 credits are required. The 32 credits of general education courses are provided by Union County College or may be transferred from other schools. The UMDNJ School of Health Related Professions provides the 30 credits of Psychosocial Rehabilitation and Treatment (PSRT) courses. Except for UPR 101 (PSRT 1101), students register at UMDNJ for the PSRT courses and pay the UMDNJ undergraduate tuition rate and fees. A grade of "C" or better in all major courses is required. Full and part-time courses of study are available, including day and evening classes. Classes are taken during fall and spring sessions.

PUBLIC ADMINISTRATION

Option offered through Business ASSOCIATE IN ARTS DEGREE

This program offers a strong foundation for students wishing to major in either public and/or business administration. Upon completion students may transfer to a four year institution where they can continue their studies in either public or business administration. The program includes courses in statistics, computer programming, and management. The courses are designed to develop analytical and quantitative skills, as well as familiarity with the basic characteristics of government and business organizations.

The Public Administration program provides students with a solid professional education. It meets the 45 credit general education distribution requirements mandated for all Associate in Arts degree programs by the State of New Jersey. In addition to this substantial liberal arts component with a strong focus on government and history, this option is linked to the business program and includes courses in accounting, business administration, economics, and computer literacy. The courses in this program are designed to develop analytical and quantitative skills as well as familiarity with the basic characteristics of government and business organizations. This is a substantial program geared for professionals in the field of public administration and for students seeking to transfer to a four-year institution where they can continue their studies.



Upon successful completion of all program requirements, graduates will be able to:

- Communicate effectively in written, verbal, and electronic formats.
- Describe the principles and practices in the field of public administration management.
- Utilize technology as it applies to business practices and research.
- Describe the application of macroeconomic and microeconomic theories and concepts in a mixed economy based market.
- Enumerate the principles governing ethical behavior in the public administration profession.

AFTER UNION COUNTY COLLEGE

This program is designed to transfer to a four-year college or university to further their education and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ACC 103	Accounting I	4		4
ENG 101	English Comp I	3	1	3
GOV 201	American Govt. & Politics	3		3
MAT	Mathematics*	4		4
HIS 101	Intro to Western Civilization I	3		3
				17

SPRING SEMESTER				
ACC 104	Accounting II	4		4
ENG 102	English Comp II	3	1	3
GOV 202	American National Govt	3		3
MAT 146	Brief Calculus with Applications			3
or				
MAT 246	Business Statistical Analysis	4		4
HIS 102	Intro to Western Civilization II	3		3
				17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
	Laboratory Science +	3	3	4
BUS 105	Organization & Management	3		3
CIS 101	Intro to Information Systems	2	2	3
ECO 201	Principles of Economics I	3		3
HIS 201	US History to 1865	3		3
				16

SPRING SEMESTER				
	Laboratory Science +	4		4
ENG 128	The Dynamics of Communication	3		3
GOV 204	Public Administration	3		3
HIS 201	US History to 1865	3		3
Electives	Humanities & Diversity**			3
				16
Total Program Credits:				66

+A one-year laboratory science sequence is recommended depending upon where you wish to transfer.

*See program coordinator to choose the appropriate mathematics course. Several pre-requisites may be required before you can take Business Statistical Analysis.

**Several humanities courses also meet the diversity requirement.

PUBLIC RELATIONS

Option offered through Communications ASSOCIATE IN ARTS DEGREE

This program is designed for transfer to a bachelor's degree-granting institution. Course work includes theory and practice of public relations. Internships in professional organizations are available. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

Other Communications Degrees Include:

- Audio Production
- Communications
- Film
- Game Design Creation
- Journalism
- Multimedia
- Radio
- Television



Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse.
- Discuss and analyze current social and political issues and events.
- Demonstrate proficiency with productivity software such as word processing, presentation manager, web browser and apply them in the field of communications.
- State the importance of committing to a process of life-long learning.
- Evaluate the ethical implications of institutional policies and individual practices.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a bachelor's degree-granting institution and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
HIS 101	Intro to Western Civilization I	3		3
MAT	A 4-credit Mathematics course	4		4
COM 100	Communications Technologies	3	2	4
				17

SPRING SEMESTER

COM 108	Principles & Practices of Public Relations	3		3
ENG 102	English Comp II	3	1	3
Laboratory Science course		3	3	4
ENG 128	The Dynamics of Communication OR			
ENG 129	Public Speaking	3		3
HIS 102	Intro to Western Civilization II	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 107	Publication Editing & Design	3		3
ENG	200-Level Course	3		3
	Modern Language	3		3
GOV 201	American Govt. & Politics	3		3
PSY 101	General Psychology	3		3
BUS 101	Intro to Contemporary Business	3		3
				18

SPRING SEMESTER

COM	Communications Elective	3		3
ENG	200-Level Course	3		3
	Modern Language	3		3
GOV 202	American National Govt.	3		3
Elective	Diversity	3		3
				15

Total Program Credits: 66

Are online classes right for you?

Get connected to learning in a virtual classroom with a distance education class.

Turn to page 142 to learn about ONLINE and BLENDED LEARNING courses available from UNION County College.

You can get there from here!



Rutgers, founded in 1766, is the eighth oldest institution of higher education in the nation. Today, Rutgers is New Jersey's state university and premier public research institution.

Since 2002, more than 200 Union County College students have taken advantage of the unique Dual/Joint Admissions agreement between Rutgers and Union County College.

This program allows Union County College graduates to enter Rutgers as juniors provided they have completed an Associate degree and fulfilled the necessary criteria.

RUTGERS

THE STATE UNIVERSITY
OF NEW JERSEY

Speak with a
Union County College
Admissions
Counselor today, by
calling 908-709-7103.

RADIO

Option offered through Communications ASSOCIATE IN ARTS DEGREE

This program is designed for transfer to a bachelor's degree-granting institution. Course work includes theory and practice of radio broadcasting. Internships in professional organizations are available. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse.
- Discuss and analyze current social and political issues and events.
- Demonstrate proficiency with productivity software such as word processing, presentation manager, web browser and apply them in the field of communications.
- Explain the importance of committing to a process of life-long learning.
- Demonstrate an understanding of the recording industry as a business.
- Operate the tools and technology encountered in a professional recording studio or radio station.
- Work as a member of a team to prepare a program for a recording or radio station.



AFTER UNION COUNTY COLLEGE

Graduates can transfer to a bachelor's degree-granting institution and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Other Communications Degrees Include:

- Audio Production
- Communications
- Film
- Game Design Creation
- Journalism
- Multimedia
- Public Relations
- Television

Matriculated Means...?

A matriculated student enrolls in the college to pursue study towards a specific degree. To be eligible for financial aid, students **MUST** be in a degree program, in other words, they must be matriculated.

A non-matriculated student has not entered a degree program but is enrolled in courses.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology	3		3
MAT	A 4-credit Mathematics course	4		4
COM 100	Communications Technologies	3	2	4

17

SPRING SEMESTER

COM 103	Intro to Radio Broadcasting	3		3
ENG 102	English Comp II	3	1	3
Laboratory Science		3	3	4
ENG 128	The Dynamics of Communication			
OR				
ENG 129	Public Speaking	3		3
Elective	Social Science	3		3

16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 203	Audio Production 1	3		3
ENG	200-Level Course	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt. & Politics	3		3
Elective	Diversity	3		3
Elective	Social Science	3		3

18

SPRING SEMESTER

COM	Communications Elective	3		3
ENG	200-Level Course	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt.	3		3
Elective	Humanities	3		3

15

Total Program Credits: 66

AMPLIFIED PROGRAM IN RADIOGRAPHY

JFK Muhlenberg Snyder School of Radiography ASSOCIATE IN SCIENCE DEGREE

By virtue of an agreement between Union County College and **JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools**, Plainfield, N.J., sponsored by JFK Medical Center, Edison, NJ. Union County College confers a degree of Associate in Science upon graduates of the Hospital-sponsored school who have fulfilled the requirements for the degree specified by the College.

Students in the program earn college credits in English, mathematics, biology, physics, psychology, computer systems and a humanities elective in classes and laboratories conducted at Union County College. Radiography courses are the primary responsibility of the program.

The Joint Review Committee on Education in Radiologic Technology and the New Jersey Department of Environmental Protection, Radiologic Technology Board of Examiners accredit JFK Muhlenberg Snyder School of Radiography.

Students are enrolled in the School of Radiography and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Students interested in the program should contact the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools at (908) 668-2400 or (908) 668-2844 for additional information.

Upon successful completion of all program requirements, graduates will be able to:

- Successfully complete the American Registry of Radiologic Technologists Board Examination in Radiography.
- Exhibit the appropriate skills and competency of an entry level Radiographer including:
 - Competency in performing routine and nonroutine (trauma) examinations in Radiography
 - Practicing appropriate basic patient care
 - Utilizing proper radiation protection for their patients, themselves, peers and others
 - Demonstration of proper and effective communication skills while speaking and writing
- Practice appropriate professional ethics of a Radiographer.
- Demonstrate appropriate problem solving and critical thinking skills necessary to be a proficient healthcare provider.
- Understand the benefits of additional personal and professional growth and lifelong learning skills necessary for the changing field of Radiography.



AFTER UNION COUNTY COLLEGE AND JFK MUHLENBERG

Graduates are eligible to sit for the American Registry of Radiologic Technologists and the New Jersey State Licensure Examinations.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills
requirements and prerequisites

**PRE PROFESSIONAL GENERAL
EDUCATION COURSES**

(24 CREDITS MUST BE SUCCESSFULLY COMPLETED PRIOR TO THE START
OF THE PROFESSIONAL RADIOGRAPHY COURSES)

COURSE#	COURSE	LEC.	LAB	CR.
RNTM101	Medical Terminology 1	1		1
MAT 119	Algebra	4		4
MAT 143	Elementary Mathematical Analysis	4		4
OR				
MAT 127	Statistics	4		4
ENG 101	English Comp I	3	1	3
ENG 102	English Comp II	3	1	3
BIO 105	Anatomy & Physiology I	3	3	4
BIO 106	Anatomy & Physiology II	3	3	4
PSY 101	General Psychology	3		3
PSY 102	Psychology of Personality			
OR				
SOC 101	Principles of Sociology	3		3
PHY 125	Elements of Physics	3		3
AND				
PHYL125	Elements of Physics Lab		2	1
OR				
PHY 101	General Physics I	3		3
AND				
PHYL101	General Physics Lab		3	1
CIS 100	Intro to Computer Applications	2	2	3
OR				
CIS 101	Intro to Information Systems	2	2	3
	Elective Humanities	3		3
Total General Education Credits				39

NOTE: ENG I & II, BIO 105 & 106, MAT 119, PSY 101 are
required prerequisite courses that must be completed
prior to the professional courses.

4 additional credits must also be completed prior to the
professional courses.

RECOMMENDED SEQUENCE

**PROFESSIONAL
RADIOGRAPHY COURSES**

(FALL SEMESTER START – ON A SEAT AVAILABILITY BASIS)
THIS IS A FULL-TIME PROGRAM. STUDENTS
MUST BE AVAILABLE 5 DAYS A WEEK, MONDAY-FRIDAY.)

COURSE#	COURSE	LEC.	LAB	CR.
FIRST YEAR/FIRST SEMESTER ~ FALL				
RNTM 103	Intro to Medical Imaging	4		4
RADM 120	Radiologic Procedures I	3		3
CLPR 901	Clinical Practicum – 2 days per week			
				7
FIRST YEAR/SECOND SEMESTER ~ SPRING				
RADM 110	Radiographic Exposure I	3		3
RADM 121	Radiologic Procedures II	3		3
RNTM 102	Healthcare Today	2		2
CLPR 902	Clinical Practicum – 2 days per week			
				8
FIRST YEAR/THIRD SEMESTER ~ SUMMER I				
RADM 122	Radiologic Procedures III	2		2
RADM 135	Radiation Biology	2		2
CLPR 903	Clinical Practicum – 2-4 days per week			
				4
FIRST YEAR/FOURTH SEMESTER ~ SUMMER II				
CLPR 904	Clinical Practicum – 2-4 days per week			
SECOND YEAR/FIFTH SEMESTER ~ FALL				
RADM 211	Radiographic Exposure II	3		3
RADM 212	Radiographic Physics	3		3
RADM 223	Radiologic Procedures IV	3		3
CLPR 905	Clinical Practicum – 2 days per week			
				9
SECOND YEAR/SIXTH SEMESTER ~ SPRING				
RADM 201	Radiographic Pathology	3		3
RADM 213	Radiographic Equipment	3		3
RADM 224	Radiologic Procedures V	3		3
RNTM 201	Fundamentals of Computed Tomography	3		3
RNTM 201L	Fundamentals of CT Lab	2		1
CLPR 906	Clinical Practicum – 2 days per week			
				13
SECOND YEAR/SEVENTH SEMESTER ~ SUMMER I				
CLPR 907	Clinical Practicum – 2-4 days per week			
SECOND YEAR/EIGHTH SEMESTER ~ SUMMER II				
CLPR 908	Clinical Practicum – 2-4 days per week			
Total Professional Course Credits				41
Total Program Credits				80

- RADM 102 may be taken at any time if a student is to continue in Nuclear Medicine Technology or Radiation Therapy. RADM 102 is a required course for students entering Nuclear Medicine Technology.
- RNTM signifies courses offered to radiography, nuclear medicine technology and radiation therapy students.
- Each professional semester, including the 4 summer sessions, have a clinical component that MUST be met for the successful completion of the program.



RESPIRATORY CARE

ASSOCIATE IN SCIENCE DEGREE

The Respiratory Care program is a two-year course of study leading to the Associate in Science degree in Respiratory Care. The course work can also be done on a part-time basis. Clinical instruction and training is provided by the University of Medicine and Dentistry of New Jersey (UMDNJ), School of Health Related Professions. Hours for clinical practice may vary and travel to the clinical setting is the responsibility of the student. Respiratory care therapists are employed in the treatment, management, control, evaluation, and care of patients with deficiencies and abnormalities associated with the cardiopulmonary system.

See paragraph "Qualifications for Admission to Degree Programs" and "Admission Requirements for Health Technologies" for desired high school background (see page 11). Also note that a minimum GPA of 2.75 is required in first-year prerequisite courses in order to continue to the Respiratory Care (second year) course work.

Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate effective communication and interpersonal skills consistent with professional and employer expectations for a Respiratory Care Therapist;



- Comprehend, evaluate, and apply information relevant to their role as Respiratory Care Therapists;
- Understand the psychomotor skills that are consistent with professional and employer expectations for a Respiratory Care Therapist;
- Demonstrate the ability to function as a member of the Health Care Delivery team, providing patient care in a multicultural and ethnically diverse society.

AFTER UNION COUNTY COLLEGE

Successful completion of the program provides eligibility for licensing in New Jersey and allows graduates to sit for credentialing examinations administered by the National Board for Respiratory Care. New licensed graduates will be able to perform the duties within the scope of a respiratory therapist in any health care institution or setting of their choice. The UMDNJ-SHRP Respiratory Care Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC) (www.coarc.com).

For more information about the Respiratory Care program please go to:

<http://shrp.umdnj.edu/programs/rspth>

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
BIO 105	Anatomy & Physiology I	3	3	4
CHE 105	Chemistry-Health Sciences	3	3	4
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology	3		3
MAT 119	Algebra	4		4
CIS 100	Introduction to Computer Appl.	2	2	3

21

SPRING SEMESTER

ENG 102	English Comp II	3	1	3
BIO 106	Anatomy & Physiology II	3	3	4
BIO 108	Microbiology	3	3	4
IDH 101	Fundamentals of Health & Disease	3		3
Electives	Humanities			6

20

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
SUMMER SEMESTER				
RSTN 2000	Core Concepts in Respiratory Care	2	1	2
RSTN 2100	Fundamentals of Respiratory Care	3	4	4
RSTN 2231	Appl. Cardiopulmonary Pathophysiology I	3		3
RSTN 2189	Clinical Practice I	7		1

10

FALL SEMESTER

RSTN 2250	Principles of Ventilatory Support	3	6	5
RSTN 2232	Appl. Cardiopulmonary Pathophysiology II	2		2
RSTN 2200	Cardiopulmonary Pharmacology	3		3
RSTN 2230	Cardiopulmonary Evaluation	3	1	3
RSTN 2289	Clinical Practice II	12		2

15

SPRING SEMESTER

RSTN 2355	Pediatric/Neonatal Respiratory Care	2	3	3
RSTN 2340	Patient Management Critical Care	3		3
RSTN 2370	Long Term, Home & Rehab. Care	3		3
RSTN 2389	Clinical Practice III	18		3

12

Total Program Credits: 78

Students register for the professional phase courses at UMDNJ and pay the UMDNJ undergraduate tuition rate and fees.

SOCIAL SERVICES

ASSOCIATE IN SCIENCE DEGREE

In today's diverse and increasingly more complex society, there is a need for individuals trained in a professional and educational curriculum which prepares students with work in a plethora of careers, including Social Services case aide, Gerontology Worker, Youth Worker, Crisis Counselor and Psychiatric Technician. The Social Services program will expose students to a multidisciplinary approach to understanding society and human behavior. Students will gain the practical and theoretical education necessary for success professionally or at a four-year college or university.

Upon completion of the Social Services A.S. program, students will have gained the initial education and training for future careers in various occupations within Human and Social Services. Associate in Science programs in general are primarily designed for students who plan to transfer to four-year colleges and universities. Union County College has transfer agreements with a number of colleges and universities in New Jersey and throughout the United States. Graduates of this program can obtain work as aides/assistants in daycare centers, mental health agencies, social service agencies, institutions for the physically or mentally challenged, prisons, hospitals and substance abuse agencies. Those students who later earn a bachelor's degree and beyond may hold positions such as social service case managers, counselors, administrators or educators.



Upon successful completion of all program requirements, graduates will be able to:

- Demonstrate critical thinking, problem solving ability and effective communication skills.
- Discuss and analyze the history and theories of sociology and psychology.
- Utilize appropriate non-verbal and verbal communication skills to demonstrate cultural sensitivity.
- Demonstrate ethical behavior and thinking through synthesis in coursework.
- Demonstrate understanding of quantitative and qualitative methods used in social services agencies and sociological and psychological research.
- Demonstrate competencies through coursework and behavior that reflects entry level professional readiness.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a bachelor's degree-granting institution and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
SOC 101	Principles of Sociology	3		3
	Laboratory Science	3	1	4
CIS 100	Intro to Computer Applications			OR
CIS 101	Intro to Information Systems			OR
COM 100	Communications Technologies			3
HIS 101	or HIS 102 or HIS 103	3		3

16

SPRING SEMESTER

ENG 102	English Comp II	3	1	3
PSY 101	General Psychology	3		3
MAT 119	Algebra*	4		4
SOC 206	Minorities in American Life	3		3
SOC 102	Social Problems			OR
SOC 203	International Social Problems	3		3
GOV 201	American Government and Politics	3		3

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SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 128	Dynamics of Communication			OR
ENG 129	Public Speaking	3		3
SOC 207	Social Inequality	3		3
SOC 209	Intro to Social Policy	3		3
PSY 102	or PSY 205 or HUG 101	3		3
Elective	200-Level Humanities	3		3

15

SPRING SEMESTER

PSY/SOC 213	Social Research	3		3
Any Gen. Ed approved Psychology or Sociology Course		3		3
Psychology Option**	OR			
Sociology Option**		9		9

15

Total Program Credits: 65

* A Higher level math may be substituted

**A total of 9 credits in any combination: HUS 101/Soc 203 (3) or WMS 101 (3) or any Sociology or Psychology elective.

Social Services Program electives:

PSY 105, 208, 210, 211, 212, 215, 218
SOC 103, 204, 215, 219, 270, 273

Is a 4-year degree in your future?

An Associate of Arts (A.A.) or Associate of Science (A.S.) degree from Union County College is fully transferable as the first two years of a baccalaureate degree program at any New Jersey public four-year institution under the Comprehensive State-Wide Transfer Agreement.

SOCIOLOGY

Option offered through the Liberal Arts ASSOCIATE IN ARTS DEGREE

Sociology is the scientific study of human society and social interaction. This program helps students understand and use sociological tools and insights to work effectively in a diverse society. The program is for students who plan to transfer to a four-year institution and major in Sociology or other related fields.

Upon successful completion of all program requirements, graduates will be able to:

- Identify basic sociological concepts and theories.
- Describe and explain social, cultural and global variations.
- Apply sociological theories to the analysis of social institutions that influence human behavior.
- Analyze sociological problems and generate solutions.
- Evaluate methods used in sociological research and assess a published report.
- Incorporate sociological knowledge and research findings into written and oral presentations.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year degree program, majoring in the Social Sciences or Liberal Arts, or other areas of interest and are eligible to take advantage of articulation agreements Union County College has with four-year colleges and universities. See a transfer counselor for details.



Matriculated Means...?

A matriculated student enrolls in the college to pursue study towards a specific degree. To be eligible for financial aid, students MUST be in a degree program, in other words, they must be matriculated. A non-matriculated student has not entered a degree program but is enrolled in courses.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB.	CR.
---------	--------	------	------	-----

FALL SEMESTER

SOC 101	Principles of Sociology	3		3
ENG 101	English Comp I	3	1	3
MAT 119	Algebra	4		4
HIS 101	Intro to Western Civilization I	3		3
	Modern Language	3		3

16

SPRING SEMESTER

ENG 102	English Comp II	3	1	3
HIS 102	Intro to Western Civilization II	3		3
SOC 102	Social Problems or			
SOC 203	International Social Problems	3		3
PSY 101	General Psychology	3		3
MAT 127	Elementary Statistics	4		4
	Modern Language	3		3

19

SECOND YEAR

COURSE#	COURSE	LEC.	LAB.	CR.
---------	--------	------	------	-----

FALL SEMESTER

ENG 128	The Dynamics of Communication or			
ENG 129	Public Speaking	3		3
CIS 100	Intro to Computer Applications	2	2	3
SOC 273	Marriage & Family Lab Science	3	3	4
FIA 108	Art Appreciation or any accepted Humanity elective	3		3

16

SPRING SEMESTER

SOC 206	Minorities in American Life or			
SOC 207	Social Inequality or			
SOC 219	Gender and Work	3		3
SOC Elective:	Students can choose one course from the following list: SOC 103, SOC 203, SOC 204, SOC 206, SOC 207, SOC 209, SOC 215, SOC 219	3		3
SOC 213	Social Research Methods	3		3
GOV 201	American Govt. & Politics	3		3
	200-Level Humanities Elective	3		3
	Open Electives	3		3

15

Total Program Credits: 66

Open Elective (select from following):

ENG 205, ENG 207, ACC 103, AST 101, 102, ECO 201, 202, URS 101, MAT 125, 144, GEO 201, PSY 102, 205, 207, 208, 211, 212, 218, 219, PHY 102, 105, PHY 111, FIA 108, 111, EGG 111, 251, BUS 101, 105, 107, HIS 201, 202, CRJ 101, 206, CHE 106, 124, TRN 101, Modern Languages, GOV 202, 215, 216, 205, BIO 103, 104, 109, 118, CSC 100, 231, EIP 201, CIS 101, 111, COM 101, 102, 105, 108, 214, 215, 112

Union County College

A T H L E T I C S

Men's Soccer



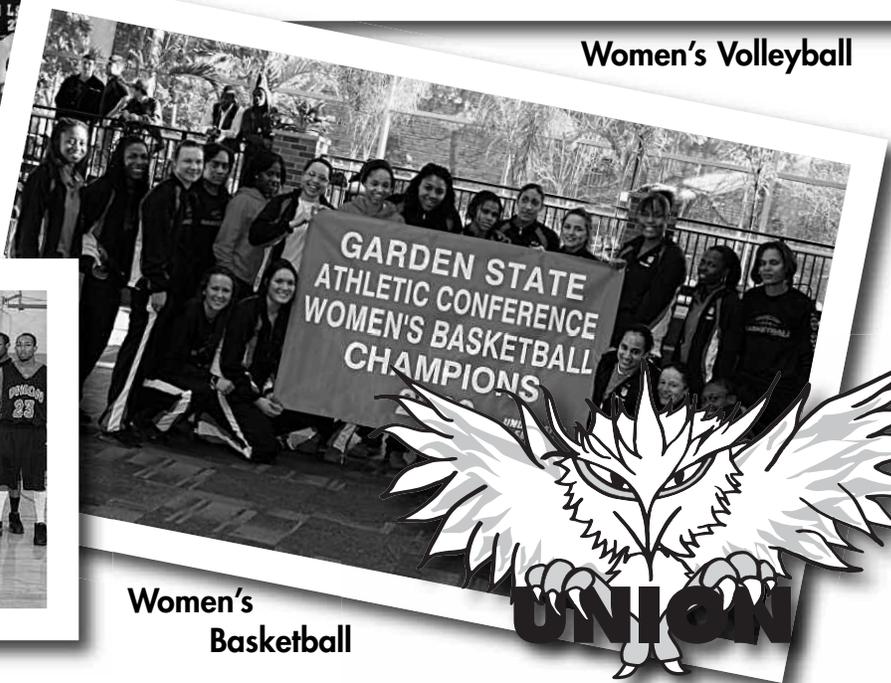
Golf



Women's Volleyball



Men's Baseball



Women's Basketball



Men's Basketball

Continuing a winning tradition!

www.ucc.edu/about/athletics or call the Athletic Department at (908) 709-7093

SONOGRAPHY

DIAGNOSTIC MEDICAL SONOGRAPHY ASSOCIATE IN SCIENCE DEGREE

By Virtue of an agreement between Union County College and **JFK Muhlenberg Snyder Schools**, Plainfield, New Jersey, Union County College confers a degree of Associate in Science upon graduates of the Hospital-Sponsored school who have fulfilled the requirements for the degree specified by Union County College.

Students in the program earn college credits in English, mathematics, biology, physics, social sciences and humanities electives in classes and laboratories conducted at Union County College. Diagnostic Medical Sonography courses are the primary responsibility of the program. Students must apply to JFK Muhlenberg for admission to the Diagnostic Medical Sonography program by March 31 for the fall semester. Candidates must be high school graduates and must have had high school biology and algebra.

Prior to enrolling in this program, you must apply to the JFK Muhlenberg Snyder Schools for acceptance.



ADMISSION INTO THE PROGRAM IS COMPETITIVE.

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) with the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) accredits JFK Muhlenberg Snyder Schools Diagnostic Medical Sonography Program (Program Number 110144).

Students are enrolled in the Schools of Diagnostic Medical Sonography and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Students interested in the program should contact the JFK Muhlenberg Snyder Schools at 908-668-2400 or 908-668-2844 for additional information.



Upon successful completion of all program requirements, graduates of the Diagnostic Medical Sonography Program will be able to:

- Obtain, review, and integrate pertinent patient history and supporting clinical data to facilitate optimum diagnostic results;
- Perform appropriate procedures and record anatomic, pathologic, and/or physiologic data for interpretation by a physician;
- Record, analyze, and process diagnostic data and other pertinent observations made during the procedure for presentation to the interpreting physician;
- Exercise discretion and judgment in the performance of sonographic and/or other diagnostic services;
- Demonstrate appropriate communication skills with patients and colleagues;
- Act in a professional and ethical manner;
- Provide patient education related to medical ultrasound and/or other diagnostic techniques, and promote principles of good health.

AFTER UNION COUNTY COLLEGE AND JFK MUHLENBERG SNYDER SCHOOLS

Upon completion graduates are eligible to sit for the credentialing examinations of the American Registry of Radiologic Technologists (ARRT) and the American Registry for Diagnostic Medical Sonography (ARDMS).

Graduates will also be prepared to advance to a Bachelor's Degree and will be counseled on an individual basis regarding this intention.

RECOMMENDED SEQUENCE

based on satisfaction of all
Basic Skills requirements and prerequisites

28-MONTH FULL-TIME CURRICULUM

STUDENTS MUST COMPLETE THE GENERAL EDUCATIONAL
REQUIREMENTS FOR THE ASSOCIATE IN SCIENCE DEGREE AND
CAAHEP ENTRANCE ACCREDITATION REQUIREMENTS BEFORE THEY
CAN ENTER INTO THE PROFESSIONAL PHASE.

The following comprise the General Education courses
requirements prerequisite to the Professional phase

GENERAL EDUCATION REQUIREMENTS:

COURSE#	COURSE	LEC.	LAB	CR.
FIRST SEMESTER (FALL)				
RNTM101	Medical Terminology	1		1
BIO 105	Anatomy & Physiology I	3	3	4
ENG 101	English Composition I	3	1	3
MAT 119	Algebra	4		4
IDH 101	Fundamentals of Health and Disease	3		3
				15

COURSE#	COURSE	LEC.	LAB	CR.
SECOND SEMESTER (SPRING)				
BIO 106	Anatomy & Physiology Part II	3	3	4
	Humanities Elective	3		3
DMSM 101	Patient Care	2		2
PSY 101	General Psychology or	3		3
SOC 101	Sociology	3		3
PHY 101	General Physics and	3	3	3
PHYL 101	Lab or		3	1
PHY 125	Elements of Physics and	3		3
PHYL 125	Lab		2	1
				16

THE FOLLOWING IS THE SEQUENCE OF THE PROFESSIONAL COURSES AND THE REMAINING GENERAL EDUCATION COURSES REQUIRED FOR GRADUATION

PROFESSIONAL COURSES

COURSE#	COURSE	LEC.	LAB	CR.
THIRD SEMESTER: (SUMMER I & II)				
DMSM 100	Introduction to Sonography	2	1	2
DMSM 102	Cross-sectional Anatomy	2		2
DMSM 103	Ultrasound Physics and Instrumentation I	3		3
DMSM 105	Ultrasound of the Abdomen I	3		3
CLPS 901	Clinical Sonography I			0
				10

COURSE#	COURSE	LEC.	LAB	CR.
FOURTH SEMESTER (FALL)				
DMSM 104	Ultrasound Physics and Instrumentation II	3		3
DMSM 106	Ultrasound of the Abdomen II	3		3
DMSM 107	Ultrasound of the Female Pelvis	3		3
RNTM 102	HealthCare Today	2		2
CLPS 902	Clinical Sonography II			0
				11

COURSE#	COURSE	LEC.	LAB	CR.
FIFTH SEMESTER (SPRING)				
DMSM 109	Obstetrical Sonography I	3		3
DMSM 111	Ultrasound of Superficial Structures I	3		3
MAT 127	Elementary Statistics	4		4
CLPS 903	Clinical Sonography III			0
				10

COURSE#	COURSE	LEC.	LAB	CR.
SIXTH SEMESTER (SUMMER I & II)				
DMSM117	Obstetrical Sonography II	3		3
DMSM118	Ultrasound of Superficial Structures II	3		3
CIS 100	Introduction to Computer Applications or	2	2	3
CIS 101	Introduction to Information Systems	2	2	3
CLPS904	Clinical Sonography IV			0
				9

COURSE#	COURSE	LEC.	LAB	CR.
SEVENTH SEMESTER (FALL)				
ENG 102	English Composition II	3	1	3
DMSM 116	Registry Review	3		3
RNTM 201	Fundamentals of CT	3		3
CLPS 905	Clinical Sonography V			0
				9

Total Program Credits: 80

**All of the above, both general education and
professional courses, must be successfully completed
prior to graduation eligibility.**

SPORT MANAGEMENT

ASSOCIATE IN APPLIED SCIENCE DEGREE



The program at Union County College has a solid foundation of business, computers, and liberal arts courses. This permits more options with the greatest potential for professional development in terms of job responsibilities and monetary compensation. It provides students with opportunities to develop what most business employers perceive as entry-level skills (e.g., public speaking, writing for business, and general economics). It also introduces students to financial accounting, marketing, and legal issues applicable to the industry.

Upon successful completion of all program requirements, graduates will be able to:

- Apply critical thinking and problem solving skills to locate, understand and resolve issues.
- Explore and understand the diverse societal issues involved in sport management.
- Develop interpersonal and communications skills necessary to function effectively.
- Demonstrate the ability to use sport technology.
- Understand and explain how sport has impacted local, national, and international issues.
- Examine the value of collaborative work in the contemporary sport management environment.
- Apply knowledge of the aspects of finance, human resources, marketing, legal issues, and budgeting that are integral to sport management.
- Develop and improve professionalism and work ethics.
- Investigate the possible careers available in this field.

AFTER UNION COUNTY COLLEGE

Graduates of this program may work in one of the many areas of this rapidly growing industry.

Students may also transfer to a college or university that offers a bachelor's degree in Sport Management.

Is a 4-year degree in your future?

An Associate of Arts (A.A.) or Associate of Science (A.S.) degree from Union County College is fully transferable as the first two years of a baccalaureate degree program at any New Jersey public four-year institution under the Comprehensive State-Wide Transfer Agreement.

RECOMMENDED SEQUENCE
based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB.	CR.
FALL SEMESTER				
BSM 101	Intro to Sport Management	3		3
ACC 103	Accounting I	4		4
CIS 100	Intro to Computer Applications	2	2	3
ENG 101	English Comp I	3		3
BUS 105	Organization & Management	3		3
				16
SPRING SEMESTER				
PSY 101	General Psychology	3		3
BSM 110	Evolution of American Sports	3		3
ENG 122	Introductory Technical & Business Writing	3		3
ACC 104	Accounting II	4		4
BUS 107	Personnel Management	3		3
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB.	CR.
FALL SEMESTER				
ENG 128	Dynamics of Communication			Or
ENG 129	Public Speaking	3		3
MAT 113*	Math Applications	3		3
PED 101	Concepts of Adult Fitness	2		2
SOC 101	Principles of Sociology	3		3
BUS 110	Business & Technology	3		3
BSM 205	Sports in Society	3		3
				17
SPRING SEMESTER				
ECO 202	Principles of Economics II	3		3
BSM 220*	Current Issues in Sports	3		3
BUS 208	Principles of Marketing	3		3
BSM 210	Sport & Law	3		3
BUS 290**	Co-op Education Experience			3
				15
Total Program Credits:				64

* Students planning to transfer to a four year program should take MAT 143 and MAT 144

** Students planning to transfer may take COM 101, ECO 201, or MAT 246. Students should ascertain from the transfer institution which course is preferred.



TECHNICAL STUDIES

ASSOCIATE IN APPLIED SCIENCE DEGREE

The A.A.S. degree in Technical Studies will provide a means for students to acquire credits based on technical training within their employing organization. Credit may be granted to individuals who have successfully completed courses evaluated by the American Council on Education (ACE) in a corporate, industrial or military training program or through a certified apprenticeship training program in the building and construction trades and who are interested in pursuing an associate in applied science degree according to the following guidelines:



Program is evaluated by the American Council on Education (ACE)

- Collegiate-level depth/breadth of curriculum beyond entry-level requirements
- Number of lecture/lab hours of study
- Company and trainer certifications
- Prior completion of prerequisites or predetermined skill level
- Types of assessments
- Level of supervision
- Cooperative/apprenticeship experiences associated with the training

Upon successful completion of all program requirements, graduates will be able to:

- Compete effectively in a technology based global economy;
- Demonstrate the necessary skills to be more productive in his/her chosen profession and career;
- Demonstrate the ability to effectively communicate and present information in a logical and systematic manner;
- Display positive interaction interpersonally as a member of a technological team and/or employer representative;
- Have the initiative and skills to continue to educate her/himself and remain abreast of the state-of-the-art through the review and interpretation of technical literature;
- Show an awareness of community, societal and ethical responsibilities and obligations associated with being awarded a college degree.

AFTER UNION COUNTY COLLEGE

Upon graduating the student will have increased opportunities for professional and personal advancement. This A.A.S. degree is not transferable to a four-year institution, but many of the non-technology courses may transfer

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB.	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
MAT 119	Algebra*	4		4
Elective	Social Science	3		3
Up to 8 Technical Studies credits may be awarded				8
				18

SPRING SEMESTER				
ENG 122	Technical Writing	3	1	3
CSC 115	Intro to Programming	2	2	3
Elective	Technical	3	3	4
Up to 8 Technical Studies credits may be awarded				8
				18

SECOND YEAR

COURSE#	COURSE	LEC.	LAB.	CR.
FALL SEMESTER				
ENG 128	Dynamics of Communication			OR
ENG 129	Public Speaking	3		3
PHY 125	Elements of Physics	3		3
PHYL 125	Elements of Physics Lab		2	1
Elective	Technical	3	3	4
Up to 5 Technical Studies credits may be awarded				5
				16

SPRING SEMESTER				
Elective	Humanities	3		3
Elective	Technical	3	3	4
Elective	Any course			3
Up to 4 Technical Studies credits may be awarded				4
				14

Total Program Credits: 66

* Higher course may be indicated by math placement test. Students will meet with an advisor to select an area of concentration from among all of the college's technically-oriented A.A.S. degree programs. A faculty advisor for the selected concentration area will develop with each student a plan of study to include at least 10 credits from the concentration area .

Between 3 and 25 credits may be earned as block credits for ACE evaluated corporate, industrial, or military training programs after review by faculty of a related program and/or the appropriate program coordinator. These credits will be posted to a student's Union County College transcript on a matching basis as students earn credits for courses taken at Union County College.

Upon consultation with the faculty advisor, additional technical electives may be selected from the following areas: ARC, AST, BIO, CHE, CIT, CSC, EET, GEY, MAT, and PHY, if required.

TELEVISION

Option offered through Communications ASSOCIATE IN ARTS DEGREE

This program is designed for transfer to a bachelor's degree granting institution. Course work includes the theory and practice of television production and video editing. Internships in professional organizations are available. Students are required to consult with an advisor regarding appropriate option and course selection for their needs and interests.

Other Communications Degrees Include:

- Audio Production
- Communications
- Film
- Game Design Creation
- Journalism
- Multimedia
- Public Relations
- Radio

Upon successful completion of all program requirements, graduates will be able to:

- Communicate orally and in writing in college level discourse.
- Discuss and analyze current social and political issues and events.
- Demonstrate proficiency with productivity software such as word processing, presentation manager, web browser and apply them in the field of communications.
- Explain the importance of committing to a process of life-long learning.
- Recognize and evaluate prevalent cultural narratives and texts and the various media used to convey them.
- Operate the tools and technology encountered in a professional television studio or video production facility.
- Work as a member of a team to produce a program as you would encounter in a professional television or video production studio.



AFTER UNION COUNTY COLLEGE

Graduates may transfer to four-year colleges or universities in a similar degree program or other areas of interest and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 101	Mass Communications	3		3
ENG 101	English Comp I	3	1	3
PSY 101	General Psychology	3		3
MAT	A 4-credit Mathematics course	4		4
COM 100	Communications Technologies	3	2	4

17

SPRING SEMESTER

COM 106	Intro to Television: Production & Theory	3		3
ENG 102	English Comp II	3	1	3
	Laboratory Science	3	3	4
ENG 128	The Dynamics of Communication			
OR				
ENG 129	Public Speaking	3		3
Elective	Social Science	3		3

16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
COM 206	Television Field Production	3		3
ENG	200-Level Course	3		3
HIS 101	Intro to Western Civilization I	3		3
GOV 201	American Govt. & Politics	3		3
COM 109	Introduction to Film Study	3		3
Elective	Diversity	3		3

18

SPRING SEMESTER

COM 216	Digital Video & Multimedia Imaging	3		3
ENG	200-Level Course	3		3
HIS 102	Intro to Western Civilization II	3		3
GOV 202	American National Govt.	3		3
Elective	Humanities	3		3

15

Total Program Credits: 66

* Mathematics requirement must be MAT 117 or higher

VISUAL ARTS/FINE ARTS

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE

The Visual Arts option will approach sculpture, architecture, painting, and drawing from a dual perspective. Students will explore the history and appreciation of art in the classroom and develop introductory and advanced skills in a variety of media in the drawing and painting studio.

See paragraph "Qualifications for Admission to Degree Programs" for desired high school background (see page 11).



Upon successful completion of all program requirements, graduates will be able to:

- Apply formal creative issues including composition, balance, space, line, and form.
- Apply skills associated with two-dimensional imaging.
- Demonstrate use of diverse materials, various media, and techniques in foundation level drawing and painting studio activities.
- Analyze the visual arts through art history.
- Create a portfolio that demonstrated competency in the visual arts undertaken.

AFTER UNION COUNTY COLLEGE

Graduates of this program can transfer to a four-year college or university into a similar program or other areas of interest and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer counselor for details.

Puzzled by Prerequisites?
Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You MUST take and pass all prerequisites.

RECOMMENDED SEQUENCE

based on satisfaction of all Basic Skills requirements and prerequisites

FIRST YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG 101	English Comp I	3	1	3
FIA 109	Introduction to Drawing	3		3
MAT 119	Algebra	4		4
	Modern Language	3		3
HIS 101	Intro to Western Civilization I	3		3
				16

SPRING SEMESTER				
ENG 102	English Comp II	3	1	3
FIA 110	Introduction to Painting	3		3
	Modern Language	3		3
HIS 102	Intro to Western Civilization II	3		3
	Laboratory Science	3	3	4
				16

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	CR.
FALL SEMESTER				
ENG	200-Level Literature course	3		3
FIA 108	Art Appreciation	3		3
FIA 115	Fundamentals of Figure Drawing	3		3
PSY 101	General Psychology	3		3
MAT 127	Elementary Statistics			or
	Laboratory Science	4		4
				16

SPRING SEMESTER				
ENG 128	Dynamics of Communication			or
ENG 129	Public Speaking	3		3
PSY 102	Psychology of Personality	3		3
FIA 116	Fundamentals of Painting	3		3
FIA 225	Fundamentals of Digital Imaging**	3		3
GOV 202	American National Govt.			or
PHI 205	Intro to Philosophy			or
ECO 201	Principles of Economics I	3		3
FIA	Diversity Course*	3		3
				18

Total Program Credits: 66

* Students can take FIA 105, FIA 111, FIA 112 or FIA 117 to fulfill the Fine Arts Diversity course requirement.

** Students who take FIA 225 Fundamentals of Digital Imaging must take FIA 224 Intro to Digital Imaging or receive permission of instructor.

DEVELOPMENTAL SEQUENCE

MATHEMATICS & READING



Depending on your test scores, you may be required to take one or more semesters of Developmental English or Mathematics.

If that's the case, it is likely that you'll spend more than two years studying at Union County College. Along with

these Developmental courses, there are other college requirements, such as UCC 101, and program prerequisites that you may have to complete.

It is very important that you stay in close contact with a Counselor or a Faculty advisor throughout your time at Union County College. This will help keep you focused on your program curriculum and ensure you're taking the right classes for your specific major.

IF YOU DO NEED TO TAKE DEVELOPMENTAL CLASSES, THIS IS THE SEQUENCE OF COURSES:

	Developmental Mathematics	Developmental Reading	Developmental Writing	English as a Second Language
1.		ENG 087	ENG 087	
2.	MAT 011	ENG 088	ENG 098	ESL 065 and ESL 092
3.	MAT 015/MAT 022	ENG 089	ENG 099	
4.	MAT 016		ENG 101	ENG 111, ENG 112
5.	MAT 117/MAT 119*			

* Students who complete MAT 022 successfully can then go on to either MAT 117 or MAT 119, depending on their program requirements.

At any level, students may be evaluated and moved up from one level to another without having to take all the intervening courses. For example, some students will take ENG 098 and after successfully completing the coursework may take an exam to test out of the sequence. Although this happens in rare cases, students should expect to take all the courses in the sequence and plan their semesters accordingly.

ENG 087 is a prerequisite for ENG 088, ENG 098, and UCC 101, so students who are required to take ENG 087 will only be able to take other courses that do not require 087 as a prerequisite (such as BUS 101 or FIA 103).

Many students will have to wait to begin their major courses of study until they've completed one or more level of Developmental courses. As a result, most students won't be able to complete a degree at Union County College in four semesters. However, prerequisites are an important requirement and will help students succeed at higher levels in all disciplines.



REQUIREMENTS FOR ALL PROGRAMS

GENERAL EDUCATION

Programs leading to the Associate in Arts (A.A.), Associate in Science (A.S.), and Associate in Applied Science (A.A.S.) include a distribution of General Education courses in the categories of:

- 1. Communications** (courses enhancing facility in the English Language);
- 2. Mathematics and Science** (courses enhancing mathematical and scientific conceptual understanding and application, including knowledge of computers);
- 3. Social Sciences** (courses enhancing social awareness, including social, economic, and political problems, and the responsibilities of citizenship in an interdependent world);
- 4. Humanities** (courses in literary, philosophical, foreign language, historic, aesthetic, or other humanistic studies enhancing understanding and transmitting values of one's own culture as well as other cultures).

The General Education requirements vary according to the degree program. A.A. Programs require 45 general education credits; A.S. Programs require 30; A.A.S. Programs require 20. No more than 16 hours in one discipline (e.g., English, Chemistry, Psychology, History) may be counted toward the general education requirement for each degree.

Certificate Programs require 6, preferably 9, General Education credit hours including one Communications course. Diploma Programs require 10 General Education credit hours.

Students should choose their general education courses based upon the degree sought and their transfer plans. Counselors will work with students to design a personalized plan of study.

General Education courses are marked with a ▲ in the course description section of the catalog. A list of General Education courses by category follows. General education requirements for each degree program are summarized in the table below:



GENERAL EDUCATION CATEGORIES

COMMUNICATION COURSES:

- ENG 101** English Composition I
- ENG 102** English Composition II
- ENG 112** English Composition for Speakers of Other Languages II
- ENG 122** Introductory Technical and Business Writing
- ENG 128** The Dynamics of Communication
- ENG 129** Public Speaking

MULTICULTURAL PERSPECTIVE

The College recognizes and respects the diversity of its student body. All faculty are encouraged to attend conferences and workshops to increase their sensitivity to intercultural issues and to integrate into their courses an awareness of the contributions that people of diverse backgrounds have made to each field of knowledge.

DIVERSITY COURSES

The College is committed to the offering of culturally diverse courses and courses of study in its transfer-oriented programs. The faculty of Union County College believes that diversity in its offerings can only enhance the exchange of ideas, understanding of beliefs, and widening of perspective implicit in the notion of a Liberal Education. A course which satisfies the diversity requirement should enable students to:

- Recognize needs and concerns common to culturally diverse peoples;
- Recognize contributions made to society by people from various nations and cultures;
- Recognize and explain the consequences of prejudicial and discriminatory attitudes and actions;
- Recognize why an understanding of diversity is particularly necessary in American society;
- Recognize that cultural practices relate to the geographical and historical conditions from which they arose.

The menu of courses which satisfy the diversity requirement is subject to continual review and revision, current courses are:

DIVERSITY COURSES:

- ASL 102** Visual-Gestural Communication
- BIO 118** Introduction to the Biology of Women
- COM 209** The Evolution of Film
- ENG 209** World Literature I
- ENG 210** World Literature II
- ENG 227** African American Literature I

GENERAL EDUCATION REQUIREMENTS BY DEGREE

Course Categories	AA credits	AS credits	AAS, AS Nursing credits	Certificate credits
Communication (Written and Oral Communication)	9	6	6	3
Mathematics – Science – Technology Mathematics 3-8 cr. (Quant. Knowledge & Skills) Science 3-8 cr. (Sci. Knowledge & Reasoning) Technological Competency or Information Literacy 0-4 cr.	12	9	3	3
Social Science (Society and Human Behavior)	6	3	3	
Humanities (Humanistic Perspective)	9	3		
History (Historical Perspective)	6			
Diversity Courses (Global & Cultural Awareness)	3			
Unassigned General Education		6	8	
General Education Total	45	30	20	6

REQUIREMENTS FOR ALL PROGRAMS

GENERAL EDUCATION cont'd

- ENG 228** African American Literature II
- ENG 245** Women in Literature
- ENG 247** Women Authors
- FIA 105** Music Appreciation
- FIA 108** Appreciation of Art
- FIA 111** Art History Survey I
- FIA 112** Art History Survey II
- FIA 117** Music in the Twentieth Century
- GEO 201** World Geography
- GOV 207** International Politics
- GOV 215** Women and American Politics
- GOV 216** Women and the Justice System
- HIS 103** Introduction to World History I
- HIS 104** Introduction to World History II
- HIS 105** Afro-American History I
- HIS 106** Afro-American History II
- MAT 230** Women in Mathematics and Science
- PSY 218** (WMS 218) Psychology of Women
- SOC 102** Social Problems
- SOC 103** (WMS 101) Gender, Culture & Society
- SOC 203** International Social Problems
- SOC 204** Women and Social Change
- SOC 206** Minorities in American Life
- SOC 207** Social Inequality
- SOC 219** Gender and Work
- URS 101** Introduction to Urban Studies

- ENG 217** Literature and the Arts I
- ENG 218** Literature and the Arts II
- ENG 220** Drama as Literature
- ENG 227** African American Literature I
- ENG 228** African American Literature II
- ENG 235** Introduction to Shakespeare
- ENG 245** Women in Literature
- ENG 247** Women Authors
- FIA 105** Music Appreciation
- FIA 106** History of Music
- FIA 108** Appreciation of Art



- FIA 111** Art History Survey I
- FIA 112** Art History Survey II
- FIA 117** Music in the Twentieth Century
- FIA 119** Introduction to Architectural History
- FIA 120** Architectural History
- FIA 205** Introduction to Drama
- FIA 206** Drama Fundamentals
- FIA 220** Introduction to Photography History
- FRE 101** Beginning French I
- FRE 102** Beginning French II
- FRE 111** Intermediate French I
- FRE 112** Intermediate French II
- FRE 121** Advanced French I
- FRE 122** Advanced French II
- GER 101** Beginning German I
- GER 102** Beginning German II
- HIS 101** Introduction to Western Civilization I
- HIS 102** Introduction to Western Civilization II
- HIS 103** Introduction to World History I
- HIS 104** Introduction to World History II
- HIS 105** Afro-American History I
- HIS 106** Afro-American History II
- HIS 201** United States History to 1865

- HIS 202** United States History Since 1865
- HIS 209** Twentieth Century European History
- HIS 215** The American Experience in the Twentieth Century
- HIS 270** The Classical Heritage of Greece and Rome
- HIS 281** The Era of the American Revolution
- ITA 101** Beginning Italian I
- ITA 102** Beginning Italian II
- ITA 111** Intermediate Italian I
- ITA 112** Intermediate Italian II
- PHI 105** Introduction to Logical Thinking
- PHI 205** Intro to Philosophy
- PHI 206** Hist. Ancient & Medieval Phil
- PHI 207** History of Modern Philosophy
- PHI 210** Ethics
- PHI 212** Logic & Critical Thinking
- SPA 101** Beginning Spanish I
- SPA 102** Beginning Spanish II
- SPA 109** Spanish Grammar and Composition for Hispanics
- SPA 111** Intermediate Spanish I
- SPA 112** Intermediate Spanish II
- SPA 121** Advanced Spanish I
- SPA 122** Advanced Spanish II



MATHEMATICS, SCIENCE & TECHNOLOGY COURSES:

- AST 101** Astronomy of the Solar System
- AST 102** Astronomy Beyond the Solar System
- BIO 101** Introduction to Biology
- BIO 102** Human Biology
- BIO 104** A Survey of the Animal Kingdom
- BIO 105** Anatomy and Physiology I
- BIO 106** Anatomy and Physiology II
- BIO 108** Microbiology
- BIO 109** Nutrition



HUMANITIES COURSES:

- COM 109** Introduction to Film Study
- ENG 205** British Literature I
- ENG 206** British Literature II
- ENG 207** American Literature I
- ENG 208** American Literature II
- ENG 209** World Literature I
- ENG 210** World Literature II
- ENG 216** Contemporary Literature

REQUIREMENTS FOR ALL PROGRAMS

GENERAL EDUCATION cont'd

- BIO 110 Human Heredity
- BIO 111 General Biology I
- BIO 112 General Biology II
- BIO 115 The Seed Plants
- BIO 116 The Plant Kingdom



- BIO 202 Biotechnology
- BIO 204 Introduction to Marine Biology
- BIO 208 Ecology
- CHE 101 Chemistry I
- CHE 102 Chemistry II
- CHE 105 Chemistry-Health Sciences
- CHE 106 Consumer and Environmental Chemistry
- CHE 111 General Chemistry I
- CHE 112 General Chemistry II
- CHE 113 Principles of Inorganic Chemistry
- CHE 114 Principles of Organic Chemistry and Biochemistry
- CHE 211 Organic Chemistry I
- CHE 212 Organic Chemistry II
- CIS 100 Introduction to Computer Applications
- CIS 101 Introduction to Information Systems
- CIS 120 The Internet
- COM 100 Communications Technologies
- CSC 100 Computer Programming Fundamentals
- CSC 115 Introduction to Computer Program
- CSC 126 Introduction to Operating Systems
- GEY 101 Physical Geology
- GEY 102 Historical Geology
- MAT 113 Math Applications (for students taking a terminal AAS degree)
- MAT 119 Algebra
- MAT 125 Survey of Special Topics in Mathematics
- MAT 127 Elementary Statistics

- MAT 143 Elementary Mathematics Analysis II
- MAT 144 Elementary Mathematics Analysis I
- MAT 146 Brief Calculus with Applications
- MAT 171 Unified Calculus I
- MAT 172 Unified Calculus II
- MAT 246 Business Statistical Analysis
- MAT 265 Linear Algebra
- MAT 267 Discrete Mathematics
- MAT 271 Unified Calculus III
- MAT 272 Differential Equations
- PHY/PHYL 101 General Physics I & Lab
- PHY/PHYL 102 General Physics II & Lab
- PHY/PHYL 111 Mechanics & Lab
- PHY/PHYL 125 Elements of Physics & Lab
- PHY/PHYL 201 Electricity & Magnetism & Lab



SOCIAL SCIENCES COURSES:

- ECO 201 Principles of Economics I
- ECO 202 Principles of Economics II
- GEO 201 World Geography
- GOV 105 Introduction to Contemporary Government and Politics
- GOV 201 American Government and Politics
- GOV 202 American National Government
- GOV 205 Comparative Governments
- GOV 207 International Politics
- PSY 101 General Psychology
- PSY 205 Child Psychology
- PSY 206 Adolescent Psychology
- PSY 212 Psychology of Adulthood and Aging
- SOC 101 Principles of Sociology

UCC101 COLLEGE SUCCESS

UCC 101 is designed to help students adjust to college by giving them the information, support, and strategies they need to feel secure in their college classes. It will help students clarify their goals, become familiar with the academic environment, and sharpen their ability to learn and think critically.

All first-time full-time students and part-time students taking twelve or more credits are required to pass UCC 101 in order to progress in their programs. Although the course is not listed among the required credits within each program, it is considered a college-wide requirement which must be fulfilled by all first-time full-time students.

Part-time students may elect to take the course but will not be required to take it until they register for a minimum of 12 credits in one semester.

UCC 101 is a course that will help students develop study skills and make better use of time and resources while in college. It is intended as a resource for students to get their bearings in college (any college) and begin to think about their long-term educational goals at Union County College and beyond.

PREREQUISITES: Students must complete ENG 087 and ESL 065 *if required* before registering for UCC 101.

EXEMPTIONS: All first time full-time students are required to take UCC 101 except for the following exceptions:

- students taking fewer than 12 credits
- students who transfer from other institutions with 15 or more credits
- students who transfer from other institutions with 2 or more credits in a first-year seminar course
- students who have completed an Associates or Bachelors degree at another institution
- students who have successfully completed ENG 101 or ENG 112 and MAT 119
- students with visitor status
- students in diploma programs
- students in certificate programs
- senior citizens

AFTER UNION COUNTY COLLEGE

UCC 101 transfers as either an elective or the first year seminar equivalent at most colleges and universities in New Jersey. Individual transfer agreements may be required.

DISTANCE EDUCATION

LEARNING FROM A DISTANCE



Distance education at Union County College provides you with an educational experience that is equivalent to traditional courses, while giving you the convenience of time flexibility. The distance education courses cover the same traditional course subject matter, carry the same credits, and are taught by highly qualified Union County College faculty. Courses are available in the fall, winter, spring, and summer sessions.

Union offers two types of Distance Education formats:

- Online Courses
- Blended Learning Courses

ONLINE COURSES are delivered entirely over the Internet.

An advantage is that online courses do not require your attendance on campus, allowing you the flexibility to fit a college course into your schedule. Although on campus attendance is not required, there are definite beginning and ending dates, assignment due dates, and testing dates. Some courses may have specific requirements such as proctored exams or may require specific software. Science courses have separate lab and lecture sections and labs are not usually available in online format. When registering, be sure to check online course status including any on campus meeting requirements.

The tools available for educational activities may include:

- Information delivery incorporating text, images, audio, video, animation, gaming, wikis, and blogs.
- Communication utilizing email, discussion groups, chat rooms, virtual classrooms, and video conferencing.
- Electronically submitted papers, tests, quizzes, and assignments.
- Tutoring is available for selected online offerings on a semester-to-semester basis. E-tutors work in both an asynchronous environment and synchronous through live chat. Services are available at no additional cost to the student.

BLENDED LEARNING COURSES combine traditional on-campus class meetings with online course learning, offering a flexible learning schedule.

Blended learning courses provide the opportunity to experience a partial online course learning environment, allowing you to evaluate whether total online learning might be right for you.

Blended learning courses are a full semester in length and offer three class meeting options:

- 14 meetings
- 7 meetings
- 4 meetings

Offerings during nontraditional semesters follow a revised meeting schedule.

How do I know which course is a Distance Education course?

Distance Education courses are identified by the course section number (see the chart below).

Are distance education courses for me?

They are if you:

- are self-motivated and don't procrastinate.
- are responsible and can resist distractions.
- are an independent learner and can set weekly goals.
- enjoy communicating in writing.
- have good reading comprehension skills.
- possess good time management skills.
- have the minimum computer requirements.

Do I have to be a computer expert to take an online or blended learning course?

No, but as a minimum, you must be able to access the Internet, locate and upload an attachment to email, send and receive email with attachments, and create, save and open documents.

Format	Number Of On Campus Meetings	Section Number	Example	Notes
Online	None*	300, 301, 302, etc.	CIS 111 300	Winter session section #'s are 230 and 231
Success in 7 Online	None*	713 - 716 or 723 - 726	CIS 111 713	Success in 7 online courses are identified as 713/723. The "1" refers to the first 7 weeks of the semester, the "2" refers to the second 7 weeks of the semester. The "3, 4, 5 or 6" means it's an online course.
Blended Learning	14	390, 391, 392, etc.	CIS 111 390	Meets once a week for 80 minutes or approximately 1/2 traditional class meetings.
	7	380, 381, 382, etc.	CIS 111 380	Meets every other week for 80 minutes.
	4	370, 371, 372, etc.	MAT 015 370	Meets weeks 1, 5, 9 & 13 for 80 minutes.

*proctored exam may be required

Review the Distance Education Web site for more details and up-to-date information.
owlsnest.ucc.edu/academics/DE/pages/default.aspx

LANGUAGE REQUIREMENTS

MODERN LANGUAGES TAUGHT AT UNION COUNTY COLLEGE:

The Languages offered by the College are Spanish, French, Italian, German, Mandarin Chinese, and Arabic.



GENERAL POLICIES CONCERNING LANGUAGE PLACEMENT

Language Placement Guide for American High School Graduates

Beginning (101/102) Level:	Fewer than Three Years of Language in High School
Conversation (105/106) Level:	At least two years of Language in High School
Intermediate (111/112) Level:	Three Years of Language in High School
Advanced(121/122) Level:	Four or More Years of Language in High School

ESL Students are Not Required to Take Modern Language

All ESL students who have completed that program are exempt from the Modern Language requirement. They may, however, elect to study a language, including their native language, if placed at their appropriate level of competence. In any case, they must complete their general education humanities course requirements.

Native Speakers May not Take Elementary Level Courses of their Native Language

Native speakers may NOT enroll in the elementary level of their native language. They may not take language courses designated as 101, 102, 105, and 106. They require permission of the Modern Language faculty to enroll at the Intermediate Level Language (courses designated 111 or 112).

Language Exemption Does Not Mean That Credit is Given for the Courses Exempted

Students exempt or ineligible from taking a given language may consider taking some other language or they may fulfill their humanities general education requirements by substituting other courses in the humanities/history category. Language exemptions do not entail college credits for the courses exempted.

The Liberal Arts Program Requires Two Years of a Foreign Language

Students enrolled in the Liberal Arts program are required to study two years of the same foreign language.

Second Year Requirement Waived With Advanced Placement

The requirement of the second year of language will be waived for students who qualify for the intermediate or advanced level in their freshmen year.

Second Year Requirement Waived if Advanced Level Not Offered by Department

If courses at the intermediate or advanced level of a language are not offered by the College, students should consider taking another modern language or they must complete the equivalent number of other courses in the humanities/history general education category.

Matriculated Means...?

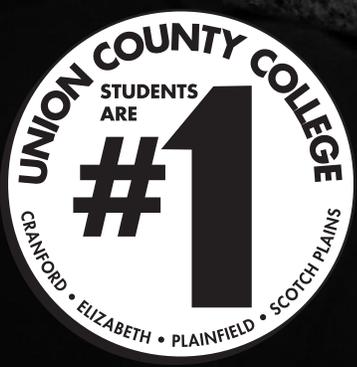
A matriculated student enrolls in the college to pursue study towards a specific degree.

To be eligible for financial aid, students MUST be in a degree program, in other words, they must be matriculated.

A non-matriculated student has not entered a degree program but is enrolled in courses.

Course Descriptions

COURSE DESCRIPTIONS



YOUR GUIDE TO UNION COUNTY COLLEGE'S COURSE DESCRIPTIONS

Code • Subject	Pg	Code • Subject	Pg
ACC • Accounting	146	GOV • Government	179
ADEC • Dental – UMDNJ	146	HIS • History	180
ADM • Administrative Support	147	HRS • Honors Studies	181
ARB • Arabic	148	HSM • Hotel, Tourism, and Restaurant Management	182
ARC • Architecture	148	HUD • American Sign Language & Deaf Studies	182
ASL • American Sign Language	149	HUG • Gerontology	183
AST • Astronomy	151	HUS • Human Services	183
AUT • Automotive Technology	151	IDH • Interdisciplinary Health Studies	184
BIO • Biology	152	IDS • Interdisciplinary Studies	184
BSM • Sport Management	155	INT • Interpreting Spoken Language	184
BUS • Business	155	ITA • Italian	185
CHE • Chemistry	156	LGL • Paralegal Studies	185
CHN • Chinese	158	LIS • Library Science	186
CIS • Computer Information Systems	158	MAT • Mathematics	187
CIT • Construction Engineering Technology	160	MET • Mechanical Engineering Technology	190
CLPN • Clinical – Nuclear Medicine	161	MTR • Meteorology	190
CLPR • Clinical – Radiography	161	NMTM • Nuclear Medicine	190
CLPS • Clinical – Sonography	161	NURE • Nursing, Trinitas	191
COM • Communications	162	NURM • Nursing, Muhlenberg	193
CRJ • Criminal Justice	163	OCE • Oceanography	194
CSC • Computer Science	164	PED • Physical Education	194
DBI • Deaf-Blind Interpreting	165	PHI • Philosophy	194
DENA • Dental – UMDNJ	165	PHY • Physics	195
DENH • Dental – UMDNJ	165	PMD • Paramedic	196
DMSM • Diagnostic Medical Sonography	167	PNU • Practical Nursing	196
ECO • Economics	168	PSRT • Psychosocial Rehabilitation – UMDNJ	197
EDU • Education	168	PSY • Psychology	198
EET • Electronics/ Electromechanical Technology	168	PTA • Physical Therapy Assistant	199
EGG • Engineering	169	RADM • Radiology	199
EIP • Educational Interpreting	170	RNTM • Radiology Imaging	200
EMT • Emergency Medical Technician	171	RSTN • Respiratory Care – UMDNJ-SHRP	201
ENG • English	171	SLR • Service Learning	202
ESL • English as a Second Language	173	SOC • Sociology	202
FIA • Fine Arts	175	SPA • Spanish	203
FRE • French	177	TRN • Translating	204
FST • Fire Science Technology	177	UCC • Interdisciplinary Studies	204
GDP • Game Design Development	178	UPR • Psychosocial Rehabilitation	204
GEO • Geography	178	URS • Urban Studies	204
GER • German	178	WDW • Walt Disney World	204
GEY • Geology	179	WMS • Women's Studies	204

COURSE NUMBERING

The course number system is:

000-099 Institutional Credit. Does not meet graduation requirements and will not transfer to four-year colleges.

100-199 Freshman Courses

200-299 Sophomore Courses

ACC • Accounting

ACC 103 Accounting I

Theory of debit and credit, the purpose and use of a balance sheet, income statement, controlling accounting accounts, subsidiary ledgers, and special journals. Description of negotiable instruments, worksheets, depreciation methods, accounting for accruals and deferrals, and accounting for inventories. Financial Accounting Theory. Equivalent course may be substituted. See Departmental Chair. Prerequisite: ENG 088. 4 lecture hours per week. 4 credit hours.

ACC 104 Accounting II

A continuation of ACC 103. Topics include accounting for current liabilities, investment, preparation, interpretation and evaluation of financial statements and reports, comparison of corporation and partnership accounting. Managerial Accounting. Prerequisite: ACC 103 or the equivalent. See Departmental Chair. 4 lecture hours per week. 4 credit hours.

ACC 203 Intermediate Accounting I

Application of accounting theory to classification of assets, liabilities, equity, fixed assets. Accounting for intangible assets, consigned inventory and cash management included. FASB oriented. Prerequisite: ACC 104 or the equivalent. 4 lecture hours per week. 4 credit hours.

ACC 204 Intermediate Accounting II

Continuation of Intermediate Accounting I with an analytical approach to statements of income, retained earnings, and changes in financial position; influences of federal taxation on financial reporting, consolidation and branch accounting. FASB oriented. Prerequisite: ACC 203. 4 lecture hours per week. 4 credit hours.

ACC 205 Cost Accounting

Theory and concepts applied to accounting for costs of manufacturing operations: methods of controlling and costing material inventory, procedures for charging labor and overhead costs to production; production data and flow; job order and process cost cycles; planning flexible budgets and standard cost variance analysis. Prerequisite: ACC 104 or equivalent. 4 lecture hours per week. 4 credit hours.

ACC 210 Microcomputers in Accounting

The study and development of skills in the application of accounting and financial functions on the microcomputer. The course will provide the student with hands-on experience in various accounting software applications and spreadsheet use. Prerequisite: ACC 104 and familiarity with the PC. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ACC 211 Federal Taxes I

A study of Internal Revenue codes commonly used by individuals and small businesses for returns, rates, credits, gross income inclusions, gains and losses, bases, dividends, deductions, preparation of individual returns. Prerequisite: ACC 103 or equivalent. Course open to all majors. 4 lecture hours per week. 4 credit hours.

ACC 212 Federal Taxes II

A continuation of ACC 211 with emphasis on partnerships and corporations, estates and trusts. Social Security taxes and Federal Estate tax complement subject matter covered. Prerequisite: ACC 211. 2 lecture and 1 laboratory hour per week. 2 credit hours.

ACC 290 Co-op Education Experience

An externship of approximately 200 hours in an accounting position with a local business or industry, with or without compensation. If an externship cannot be arranged, a term project on or off campus will be assigned. An elective may be substituted. This course is open only to matriculated students in the A.A.S. degree accounting program. Prerequisite: ACC 203 or the equivalent or arrangement with the accounting coordinator. 10 lecture hours and 200 externship hours. 3 credit hours.

ADEC • Dental – UMDNJ

ADEC 1110 Dental Head and Neck Anatomy

This course is a study of the basic structures of the oral cavity, a study of nomenclature, structure and morphology, and function of the teeth. Demonstrations and lecture sessions are designed to emphasize the clinical appearance of the anatomical features of the teeth and to point out relationships to adjacent teeth, opposing teeth, and surrounding tissues. This course also describes the structure and function of the gross structures of the head and neck. Discussions will emphasize importance of anatomical concepts. 45 lecture hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

ADEC 1205 Dental Health Education I

This course is designed to prepare the dental hygiene student to provide patient education to individuals and groups. The course takes the student through a step by step process regarding the development, implementation and evaluation of dental health education programs. Students complete an individualized patient education project. 45 lecture hours. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

ADEC 1209 Introduction to the Dental Profession

This course is designed to introduce the student to the profession of dentistry and each of the recognized dental specialties. Through lecture and laboratory sessions, the student learns dental procedures and the role of the dental auxiliary in the following areas: dental public health, endodontics, oral and maxillofacial surgery, oral pathology, orthodontics, pediatric dentistry, periodontics, prosthodontics, and oral and maxillofacial radiology. State dental practice acts and ethical considerations for the dental auxiliary are addressed. 45 lecture hours, 30 lab hours. 4 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

 **Puzzled by Prerequisites?**

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You **MUST** take and pass all prerequisites.

ADEC 1219 Dental Radiology

Dental radiography is a didactic/laboratory course presenting the principles of radiology and its clinical application. Lecture topics include x-ray production, processing of films, intra and extra oral techniques, quality assurance, utilization of radiographic selection criteria, radiographic interpretation, and radiation biology and safety. Also covered is infection control and hazardous waste disposal. Laboratory experiences include mannequin simulation as well as assigned patients. The format will include lectures and demonstrations followed by student participation. Students who take the laboratory component will also complete a portfolio with a self-evaluation paper. 30 lecture hours, 45 lab hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

ADEC 1240 Medical Emergencies

The course is designed to cover the causes of various medical emergencies and how to manage an episode in the dental office. Through lectures and reading materials the student will learn about various conditions that can lead to a medical emergency in the dental office, how to recognize it and what management steps are necessary in that particular case. The student is also taught how to prevent a medical emergency from occurring via proper history taking techniques. The course also includes a laboratory project which involves independent research on a given systemic condition. 15 lecture hours, 15 lab hours. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

ADEC 1250 Dental Materials

This course is to introduce and reinforce theory, techniques and application in the handling of dental materials. Information and manipulation will be taught to a pre-clinical laboratory proficiency level and will be explored further in the Dental Specialties courses. Expanded functions as listed in the New Jersey Dental Auxiliary's Act are included whenever applicable to reinforce the importance of understanding the utilization of dental materials. 30 lecture hours, 45 lab hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

ADEC 1269 Dental Specialties I

This course consists of lectures and laboratory sessions which allow students to demonstrate clinical competency. At the completion of the course, the student will be able to perform expanded duties, incorporate principals, and manipulate properties of dental materials to laboratory proficiency as outlined in the New Jersey Dental Auxiliary Practice Act. This course is a Prerequisite to Dental Specialties II. 15 lecture hours, 15 lab hours. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

ADEC 2460 Practice Management

This course prepares the student in dental practice management procedures. Topics include appointment contacts, telephone techniques, record keeping, insurance, computerized dental systems, resume writing and interviewing. Legal, ethical and safety issues are emphasized. Case studies in ethics will be emphasized followed by group discussion. 15 lecture hours. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

ADM • Administrative Support

ADM 101 Keyboarding for the Computer I

This course is designed for those who plan to use a computer for personal and professional purposes. Students learn the alphabetic, numeric, and symbol keys, including the ten-key pad on PCs. The basic skills needed for document formatting are taught. Reports, letters, and memoranda are introduced. This course is open to all majors. Prerequisites: ENG 088, MAT 011. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

ADM 102 Keyboarding for the Computer II

This course is a continuation of Keyboarding for the Computer (ADM 101) where proper keyboarding techniques and computer literacy were stressed. This course begins with production work, while continuing to stress the importance of proper techniques. Topics include: tables, rough-draft reports, bulleted and numbered lists, business and personal letters, reports with footnotes and endnotes, bibliographies, and employment papers. Prerequisite: ADM 101 or Challenge Examination or permission from ADM Coordinator/Business Department Chairman. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

ADM 110 Keyboarding And Computer Skills For Nursing

This course covers mastering the correct keyboard techniques and building keyboarding speed. Basic computer concepts are also learned. Using Microsoft Word and PowerPoint students learn the fundamentals of document processing and professional presentations. Students also learn to create, edit, and format an APA style report. The essentials of the Internet and Web including netiquette and email, copyright, privacy, and security are discussed. Students have "hands-on" experience with a learning management system. This course should be taken prior to enrolling in Trinitas School of Nursing courses. 1 lecture hour and three laboratory hours per week. 2 credit hours.

ADM 131 Administrative Procedures

This course discusses general administrative professional orientation, including the role of a professional secretary. This course develops self-confidence and a professional attitude. Lectures and discussions on records management, mail processing, travel arrangements, business meetings, communications responsibilities, financial assistance, investments, human relations in the office, grooming, and career advancement. Development of business vocabulary and business communications skills is included. Also, an overview of employment search activities such as the resume and interview process is covered. Prerequisite: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

ADM 135 Proofreading and Editing Skills

This course addresses the complaint of many office supervisors that employees lack business communication skills. Major emphasis is on developing technical editing skills needed for successful employment in a business environment. Students apply these skills to typical business correspondence. This course is ideal for students who are planning a career where communication skills are required. Prerequisites: ENG 088 and ENG 098. 3 lecture hours per week. 3 credit hours.

ADM 140 Customer Service

This course covers the many aspects of customer service skills needed in business and industry. The course examines the people, practices, and events that are needed in the field of customer service. The course includes an overview of customer service, discusses specific skills and related topics, and provides insight into future customer service trends and issues. This course is beneficial to anyone in business and industry that provide products, services, or information. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

ADM 213 Word I

This course introduces the student to the use of a current version of Microsoft Word. Topics include: creating/editing documents, formatting, speller/the-saurus/grammar checker, widow/orphan control, headers/footers, multiple windows, find/replace, Auto text, templates, Wizards, borders, Microsoft Draw, WordArt, tables, columns, styles, and more. Materials covered in this course helps prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in Word. This course is also listed as CIS 113. Prerequisite: ADM 101, ENG 089, and ENG 099. 2 lecture and 3 laboratory hours per week. 3 credit hours.

ADM 214 Word II

This course is a continuation of Word I, ADM 213/CIS 113. Students learn how to insert pictures and text boxes, create newsletters, control text flow, create and modify styles, insert and edit fields, use electronic forms, use mail merge, create and manage macros, use advanced table-formatting features, create charts and import data into charts, add/edit footnotes and endnotes, create and navigate outlines, create master documents, create and track comments, create hyperlinks and more. Material covered in this course helps prepare the student for the expert level of the Microsoft Certified Applications Specialist (MCAS) exam in Word. Prerequisite: ADM 213/CIS 113. 2 lecture and 3 laboratory hours. 3 credit hours.

ADM 215 Excel I

This course introduces the student to the use of a current version of Microsoft Excel. Students build a worksheet from a beginning level to an intermediate level. Topics include creating and formatting a worksheet, enhancing a worksheet, absolute and relative referencing, functions, advanced formulas, dates, times, financial functions, templates, multiple worksheets/files charts, and more. Material covered in this course helps prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in Excel. This course is also listed as CIS 115. Prerequisites: ADM 101, ENG 089, and MAT 011. 2 lecture and 2 laboratory hours per week. 3 credits.

ADM 216 Access

This course introduces the student to the use of a current version of Microsoft Access. Students create a database and learn to maximize productivity. Some of the topics included are creating a database, organizing and retrieving data, working with tables, creating queries and advanced queries, building forms, reports and data access pages, automating and extending Access, entering criteria, sorting, structure, validation, referential integrity, the World Wide Web, Hyperlink fields, briefcase replication, wizards, and macros. Materials covered in this course help prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in Access. Prerequisites: ADM 101, ENG 089, and MAT 011. This course is also listed as CIS 116. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 217 PowerPoint

Students learn how to create professional-looking presentations using a current version of Microsoft PowerPoint. Some of the topics covered are creating and editing, table slides, templates, ClipArt Gallery, autoshapes, drawing tools, organization charts, enhancing presentations, slide time, running an automatic slide show, selecting color schemes, captions, integrating Word and Excel, creating presentations for a Web page, AutoContent, Hyperlinks, and more. Material covered in this course helps prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in PowerPoint. Prerequisites: ADM 101, and ENG 088. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 290 Co-op Education Experience

An externship of approximately 200 hours in the office of local business firms. If an externship cannot be arranged, a term project on or off campus will be assigned. Co-op should be taken in student's last year of program. An elective may be substituted for this course. Prerequisite: Permission from Administrative Support Coordinator/Business Department Chair. 1 lecture and 20 laboratory hours per week. 3 credit hours.

ARB • Arabic

ARB 101 Beginning Arabic I

This course will provide students with a solid foundation in pronunciation, grammar and proficiency in the four language skills of understanding, speaking, reading and writing. Media are incorporated into classroom experience. Native speakers of Arabic must get approval of the Modern Languages coordinator or the instructor. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

ARB 102 Beginning Arabic II

A continuation of ARB 101. This course will build on the student's knowledge of Arabic 101 through the development of the communicative language via classroom and web-based activities. Emphasis on audio-oral skills, reading, and advanced grammatical structures. Native speakers of Arabic must get approval of the Modern Languages coordinator or the instructor. Prerequisite: ARB 101 or 2 years high school Arabic. 3 lecture hours per week. 3 credit hours.

ARC • Architecture

ARC 101 Architectural Design I

An introduction to architectural design through the examination of basic principles and elements of design. Human needs such as personal identity, privacy, community, and security are studied and applied to a series of problems in spatial organization. 3 lecture and 5 laboratory hours per week. 5 credit hours.

ARC 102 Architectural Design II

A further exploration of architectural design issues, examining the impact of the environment on physical and mental health, user-groups and their responses to environments, and architectural design as the expression of social values, cultural patterns, and historical heritage. Execution and criticism of a series of related problems. Prerequisite: ARC 101. 3 lecture and 5 laboratory hours per week. 5 credit hours.

ARC 105 Introduction to Architecture and Culture

An introductory study of architecture and design issues that impact society. This course is for students interested in pursuing studies in architecture and design fields such as landscape architecture, interior design, urban planning, historic preservation, real estate, and facilities design. It explores how architecture and environments impact and shape our lives and communities. Technical aspects of architecture will be introduced through examples as well as the cultural and historic basis for design. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

ARC 205 Architectural CAD Design

This course covers the basics of computer technology and software applications used in the architectural profession to design, produce, present, and communicate with other design professionals and clients. Using computer-assisted design, students will perform a series of design assignments. Applications of computer tools in resolving design issues during the various phases of a project will be discussed and utilized. The course will build on the elements of architectural theory and practice. Execution and project reviews will be conducted in a group format. Prerequisite: ARC 102 or permission of instructor. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

ARC 206 Architectural 3D Design

This course will expose students to the more advanced aspects of computer assisted design of architecture and design projects. The course will require the completion of projects involving the resolution of a more complex set of design issues. Students will be using advanced applications of Computer Aided Design (CAD) and three-dimensional modeling to construct a design project and presentation layout from start to finish. Execution and project reviews will be conducted in a group format. Prerequisite: ARC 205 or permission of instructor. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

ARC 210 Portfolio Development and Presentation Methods

This course will provide the architecture and design student with the foundation for the preparation of a design portfolio. The individual is encouraged to organize a comprehensive assemblage of work. Various techniques of media images are demonstrated and applied to the student's individual design projects. This portfolio typically is used for transfer evaluations and work/job interviews. Prerequisite: ARC 102 or permission of the instructor. 1 lecture hour and 3 laboratory hours per week. 2 credit hours.

ARC 218 Construction Methods and Materials

An introduction to building construction practices and building materials. Emphasis is on structural systems, construction materials and detailed finishing operations required to make a serviceable and sustainable structure. The methods, materials, and structural systems used in the construction of core and shell components of buildings will be examined. Topic areas include site work, foundations, steel framing, reinforced concrete framing, wood framing, floor, exterior wall and roof systems. The course includes an overview of mechanical systems, working drawings, specifications and the roles of the owner, architect/engineer, constructor and project management representative in the construction process. Sustainability of buildings will be integrated throughout the course with emphasis on recent advances and research in the area of green materials. Each building material will be analyzed as to the overall properties of the material and its value relative to issues of sustainability (lifecycle costs/environmental stewardship/local resource). Prerequisites: ENG 088, ENG 098, MAT 022 or permission of Architecture Coordinator. 3 lecture hours per week. 3 credit hours.

ARC 224 Structural Design I

An introduction to the basic principles of static equilibrium of external forces in engineered systems, including the use of free-body diagrams, the location of centroids, and calculation of area moments of inertia. Practical problems involving simple structures, trusses, frames, etc., are analyzed, preparing the student for further study of the strength of materials, structural analysis, and design. Special topics for architectural applications. Calculations use units from both the Customary English System and the International System (Metric). Prerequisite: MAT 143. 3 lecture hours per week. 3 credit hours.

ARC 225 Structural Design II

An introduction to the basic principles of strength of materials, structural analysis, and design. Practical problems involving internal stresses and strains, properties of structural materials, shear and moment diagrams, beam stresses and deflections, structural behavior of beams, columns, and connections. It provides the student with the basic knowledge and skills required to analyze and design basic structural elements, including wood and steel tension members, beams, columns, and simple structural connections. Calculations use units from both the Customary English System and International System (Metric). Prerequisites: ARC 224. 3 lecture and 1 laboratory hour per week. 3 credit hours.

ARC 295 Independent Study

A special research and/or design project in Architecture for the advanced student with individual needs. Prerequisite: Permission of the instructor. 1 to 3 credits by arrangement.

ASL • American Sign Language

ASL 101 American Sign Language I

This course is designed to introduce the student to American Sign Language, the visual-gestural language of Deaf persons, and Deaf Culture and to develop receptive and expressive communication skills with incorporation of visual-gestural techniques, ASL vocabulary, basic rules of grammar, syntax and some cultural features of the Deaf community. Prerequisite: Students whose records and tests indicate the need for review in the fundamentals of language will be assigned to Communication skills courses. Students placed in English 098-099 and English 088-089 must demonstrate college level competence before enrolling in American Sign Language & Deaf Studies Program. 3 lecture hours and 2 laboratory hours per week. 4 credit hours.

▲ ASL 102 Visual-Gestural Communication

A skill development course of the visual-gestural aspects of communication, which are an integral part of American Sign Language. Emphasis will be on visual and kinetic readiness via visual-gestural communication techniques, visual discrimination and memory exercises; also kinetic movements and exercises of body, face, arms and hands and their relationship to space. Spatialization and its relationship to the signer's perspective will be developed through exercises. Emphasis will be on mastering visual and kinetic skills related to visual-gestural communication and on non-manual behaviors of American Sign Language. Students will do survey and/or research of similarities and differences between American Deaf Culture visual-gestural/non-manual aspects. Prerequisite: Students whose records and tests indicate the need for review in the fundamentals of language will be assigned to Communication skills courses. Students placed in English 098-099 and English 088-089 must demonstrate college level competence before enrolling in American Sign Language & Deaf Studies Program. Corequisite: ASL 101. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

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Turn to page 99 to learn about Union County College's Associate in Science degree in Mathematics.

ASL 103 American Sign Language II

This course is a continuation of ASL I (ASL 101). It is designed to develop further competency in ASL above the basic level. Students will be exposed to ASL transcription symbols, sentence types, non-manual behaviors, time, pronominalization, subjects and objects, classifiers, locatives, pluralization, temporal and distributional aspects. Some information about the Deaf Community and its culture will also be featured throughout the course. Receptive and expressive sign vocabulary will be featured through class activities leading to basic conversational skills in ASL. Students will be expected to interact with the Deaf Community in real-life situations, thereby enhancing their awareness of and sensitivity toward various aspects of Deaf Culture and ASL. Prerequisite: ASL 101. 3 lecture hours per week and 2 laboratory hours per week. 4 credit hours.

ASL 104 ASL Classifiers

This course will expand on understanding the principles of Classifiers, an integral part of American Sign Language (ASL), knowing how to identify different types of ASL Classifiers, and application of ASL Classifiers. Students will learn and apply the three types of classifiers, learn and use the representative classifiers (animate and inanimate), descriptive classifiers (size-and-shape, extent, perimeter, and pattern and texture), and instrumental classifiers. This course will provide hands-on experiences and skill building activities needed for appropriate classifier use applied to complex descriptions and images. Eye gaze, role shifting, spatial referencing and appropriate use of ASL Classifiers in storytelling and different genres will also be covered. Prerequisite: ASL 101 and 102. Corequisites: ASL 103 and HUD 104. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

ASL 201 American Sign Language III

This course is a continuation of ASL II. It is designed to develop further competencies in ASL; expanding the emphasis on ASL grammar and vocabulary development as well as Deaf Community and culture. Students will experience additional in-depth receptive and expressive skill development. Development of advanced signing skills include topicalization of health, drug use, money/business, etc. Dialogue, short stories, narratives, and conversations will be featured throughout the course. Students will be required to interact with the Deaf Community in real-life situations enhancing their awareness, application, and sensitivity toward various aspects of ASL and Deaf Culture. Prerequisite: ASL 103. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ASL 202 American Sign Language IV

This course teaches students advanced conversational and discourse skills in American Sign Language and advanced and fine aspects of American Deaf Culture. Styles/Registers in ASL will be discussed on an advanced level. Development of advanced signing skills include topicalization of medical and sexual behavior, current events, dialogues, sign variants/differences, etc. Text and discourse analysis are also incorporated throughout the course. Prerequisite: ASL 201 and ASL 205. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ASL 203 American Sign Language V

ASL Vocabulary and usage of ASL are expanded through storytelling and folklore in ASL. Students will enhance skills in storytelling and re-telling which incorporate the dynamics of ASL and its finer aspects. Students learn how to participate in group discussions, to speculate and make analogies, give instructions and express feelings and intentions as well as applications of ASL discourse styles and registers and rehearse appropriate social/language responses. Prerequisite: ASL 202. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ASL 205 Linguistics of American Sign Language

Conducted in American Sign Language (ASL), the course is descriptive and data-oriented rather than theoretical. The course gives an historical overview of social and linguistic events that influence transformations in ASL; introduction to structure and organizational properties of ASL as identified through linguistic research; review of other languages that share similar organizational principles; discussion of semantic hierarchy and framework for analyzing semantic properties of ASL. Prerequisite: ASL 103. Corequisite: ASL 201 or permission of instructor. 3 lecture hours per week. 3 credit hours.

ASL 208 American Deaf Culture and History

This course is a study of the status of Deaf people as both a linguistic and cultural minority group. This course is designed for individuals who may or may not have had prior experience with Deaf people. The course raises questions on the nature of sign language and its varieties, the education of Deaf people, the historical treatment of Deafness, the sociological and cultural make up of Deaf individuals, and the nature of ASL Literature and poetry. The course also covers the history of Deaf people in the Western World, with emphasis on the American Deaf Community and its relation to hearing society. Prerequisite: ASL 201 and ASL 205. Corequisite: ASL 202. 3 lecture hours per week. 3 credit hours.

ASL 210 American Sign Language and Deaf Literature

Students read and discuss in ASL various genres of American Sign Language and Deaf literature. Students develop basic skills in ASL Literature. Concentration is on the work of current, recognized narrators in both literacy and face-to-face storytelling traditions. Prerequisite: ASL 203. 3 lecture hours per week. 3 credit hours.

ASL 211 Mentoring – Skills Development for American Sign Language-English Interpreters

This course is designed as a supervised mentoring for students with a certificate of completion or degree in ASL-English Interpreting or three years of experience as a community and/or educational interpreter. Students will design specific skill development goals to focus on during the course. Emphasis will be on application of lean and rich American Sign Language features, i.e., fingerspelling, vocabulary, use of space, classifiers, Prosody, Interpreting (ASL to English and English to ASL) in interpreting, based on the students' specific skill development goals. Students will apply self-assessment tools for maintaining skills enhancement. Knowledge and skills sets in ASL/English interpreting may include Bilingual/multilingual skills, meaning management skills (interpreting/transliterating), ethical and professional decision-making, professional management and business skills, and/or new specialization, i.e., medical, business, mental health, legal interpreting, or working towards a certification. Prerequisites: Permission of Instructor. 3 credit hours.

ASL 270-289 Selected Topics in American Sign Language Studies

Studies of selected events, issues, topics or skill development in American Sign Language Studies will be offered on the basis of timely concerns, community interests, students' requests, etc. These courses are of a continuation of professional skill development and of a timely or specialized nature and can be best offered not on a regularly scheduled basis, but periodically. Individual topics will be announced prior to registration; one, two, or three credits will be offered depending on the nature of the course format and class hours. 1, 2, or 3 credit hours.

AST • Astronomy

▲ AST 101 Astronomy of the Solar System

This course provides a survey of the nature and underlying physics of all the solar system objects: sun, planets, satellites, asteroids, comets, and meteoroids.

Astronomical discoveries are put into historical perspective. Experiments are carried out in the William Miller Sperry Observatory to determine the mass of the earth, phases of the moon and Venus, and more, using only high school math. Topics in optics, motion, heat, and properties of states of matter are introduced. The use of sky charts and coordinate systems is presented. Certain labs can only be completed at Sperry Observatory on the Cranford campus – students unable to come to the Observatory for these labs can opt to do alternate labs. Prerequisites: ENG088 and MAT011, if required, or permission of the instructor. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

▲ AST 102 Astronomy Beyond the Solar System

This course, which does not require any prior astronomy, provides a survey of the nature and underlying physics of objects outside the solar system, including stars, constellations, galaxies, and the universe. The brightness and spectral (color) classes of stars are investigated along with the life history of typical stars. The course then covers how stars are clustered into galaxies, and the relationships of galaxies to each other in the universe. In the William Miller Sperry Observatory, the spectroscopy is employed to examine spectral lines of stellar gases. These lines tell us the stuff of which stars are made. Additional experiments cover items such as constellations, classification of stars, the Milky Way, and the structure of the universe. In doing the experiments using basic math, students discover anew what great astronomers of the past have found. Topics in optics, heat, gas laws, forces, relativity, and the atom are introduced. Certain labs can only be completed at Sperry Observatory on the Cranford campus – students unable to come to the Observatory for these labs can opt to do alternate labs. Prerequisites: ENG088 and MAT011, if required, or permission of the instructor. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

AUT • Automotive Technology

AUT 100 Automotive Fundamentals

This course is an introduction to basic automotive fundamentals. Students will be taught safety, computer software and information retrieval from service manuals and business based software programs, basic hand tools, power tools, specialty tools, and their uses and applications. Fasteners and thread repair techniques will also be covered. Basic car component identification, services, and maintenance will also be presented to the students. This is an introduction course to familiarize new students with no prior automotive background and is a requirement before entering the Automotive Technology Program. The ability to test out of this course will be offered to students with prior automotive experience. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 101 Steering/Suspension Systems

This course is designed to teach the principles of automotive steering/suspension systems and wheel alignment. Basic tire construction, ratings, repairs, dismantling and mounting procedures are covered. Static and dynamic wheel balancing procedures will finish the tire segment. This program will cover fundamentals of short/long-arm, and strut suspension which includes the components that are individually part of the suspension systems and how they operate. Various steering linkage systems, components, operation, differences between manual and power steering and how they apply to steering, suspension, and four wheel alignment will be discussed. The basics of two and four wheel alignment and the related geometry will be taught to the students during the wheel alignment segment of the course. Students will learn strategy-based diagnostic routines, in order to interpret and verify customer concerns and to perform tests to determine the causes of problems. Students will perform hands-on repairs related to tires, steering and suspension components as well as actual wheel alignments. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 102 Manual Drive Trains

This course covers the manual drive train and the components that are individually part of it. Covered are front wheel, rear wheel drive, four wheel drive, and all wheel drive transmissions systems. The power delivery to the wheels through the clutch, transmission, differential and drive shafts are part of this course. Theory, noise diagnostics and overhaul procedures will be covered within this phase. Constant velocity axles and drive shaft overhaul will be covered as well. Included within this module will be a section on diagnostics, noise, and vibration causes and repairs. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 103 Brake Systems

The brake course prepares the student to diagnose and repair brake systems in the automotive field. This course builds upon the essential laws of physics, motion, forces, hydraulics, thermodynamics, and chemical reactions, and how these principles apply to the operation of the automotive brake system. The course will cover the energy conversion of motion changed to heat energy (when brakes are applied,) the effects of weight and speed on braking and stopping distance, thermal expansion, friction, force, and coefficient of friction, as they apply to braking systems. The course covers the fundamentals and service of disc/drum brakes; including, how they operate, brake-fluid properties, diagnosis, component replacement/repair/adjustment, disc/drum machining, power-assist units, and the fabrication (double flaring) of brake lines. The student will learn strategy-based diagnostic routines for interpreting and verifying customer concerns and proper operation. Through the inspection, testing, or measurement of component(s) operation, the student will learn to apply this knowledge to determine needed repair(s) and to implement the repair(s). 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 121 Automotive Electrical 1

This ASE certified course is a basic automotive electrical course designed to cover the theory of electricity. The course will cover the basic applied electrical principles, basic component operation such as bulbs, relays, diodes, magnetism, and test equipment, moving toward chemical development of electricity (the battery) and the development of electromagnetism in its applied use in the starting and charging of systems. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 122 Automotive A/C & Heating

This course is designed to introduce the student to the basic theories and principles of refrigeration and their applications in the automotive air conditioning and heating system. The student will study the basic theories and principles of refrigerant, safety and environmental concerns, and the related tools and equipment needed to service these systems. The student will learn the associated electrical system controls and operations that allow air delivery, filtration, and temperature control into the automobile. The cooling system in relation to the heating system of the automobile will be covered. The student will perform related hands-on tasks to recharge, evacuate, purge, and diagnose heating and A/C problems. Included in this course will be the information and test for handling automotive refrigerant. Prerequisite: AUT 121. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 131 Automotive Engine Performance 1

This ASE certified based course is an introduction to the basic interrelationship of the engine, ignition, fuel, and exhaust systems that is called, engine performance. This course will cover the basics of the ignition system, basic engine operation, basic fuel and its delivery. The byproduct of their united functions which is exhaust and emissions will be discussed. Basic diagnostics and maintenance of these systems will be taught. Prerequisite: AUT 121. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 201 Engine Repair

This course is designed to introduce the student to engine construction, diagnosis, and repair/rebuilding procedures. The student will learn the basic construction and operation of a four stroke engine, types, classifications, and ratings. Components, hardware, and service tools that are part of the short block assembly and valve train will be discussed. Engine sub systems; cooling, lubrication, starting, fuel, and emissions will be included within engine repair. Engine overhaul procedures and common engine mechanical repairs will be taught during this phase. An engine teardown, measurement, analysis, and reassembly will be a requirement of the course. Diagnosis and troubleshooting engine mechanical problems will be covered in this phase. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 202 Automotive Electrical 2

This course will build on the basic applied electrical principles from Automotive Electrical 1, and apply them to individual systems of the automobile. A diagnostic strategy will be developed to allow the student to be able to diagnose and repair electrical problems. The horn, lighting, wiper and washer systems, and air bag will be covered as well as dash instrumentation, motorized accessories, and electronic controls within the automobile. Different electronic waveforms and the test equipment to monitor them will be discussed. Diagnostic procedures and computer flow chart diagnostics will enable the student to test electronic modules and sensors within the automobile. New electronic technology will be introduced in this phase as it is developed. Prerequisite: AUT 121. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 203 Automatic Transmission

This course is an introduction to automatic transmissions and transaxles. Applying the previously learned information from Manual Drive Trains, Automatic Transmissions will cover the hydraulic principles and the components that allow this transmission to shift automatically. Mechanical components, fluid transfer, circuitry, and testing will be part of this course. Pressure testing and overhauling a transmission will be a requirement. Electronic transmission shifting, lock-up, and diagnostics through a scanner will be covered. Prerequisite: AUT 102. 3 lecture hours, and 3 laboratory hours per week, 4 credit hours.

AUT 232 Automotive Engine Performance 2

This course will build on the introduction of engine performance by expanding each of the sections for more in-depth coverage of the new systems on an automobile. Course coverage will include various electronic ignition systems, fuel injection systems, and computer controls that affect emissions. An introduction to OBD 1 and OBD 2 systems will also be covered. Diagnostics and repair of these systems with computer-based technology will enhance this course. Prerequisites: AUT 122 and AUT 131. Corequisite: AUT 201. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 290 Co-op Education Experience

This course is a work-externship comprising a minimum of 400 hours of employment related to automotive technology with a dealership, independent or specialty auto shop, chain store, municipality, fleet or corporate facility. Prerequisites: Permission of the Automotive Coordinator. 6 credit hours.

BIO • Biology

BIO 002 Introduction to Anatomy and Physiology

An introduction to the fundamental concepts of anatomy and physiology. The course is designed for students who have had no high school biology or who need a review before enrolling in BIO 105-106 or BIO 102. This course will not fulfill a laboratory science requirement. 3 lecture hours per week. 3 institutional credit hours.

BIO 005 – The Human Body: Levels of Organization For The English Language Learner

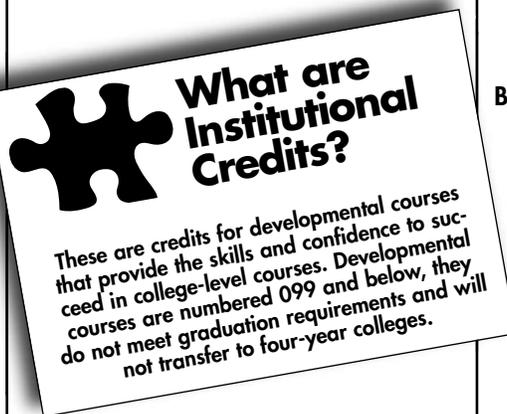
This course is an introduction to the basic mechanisms underlying the organization of the human body. These levels of organization provide the building blocks upon which the human body functions; understanding this will enhance the students' ability to understand the fundamental concepts of anatomy and physiology. Students will also gain a level of comfort in using scientific vocabulary. Through studying the foundations of life, chemistry and cells, the student will learn how the body uses these basic mechanisms to enable the body to function in a healthy state. Corequisites: ESL 051/052, ESL 085, ESL 095 or permission of the Chair of the Biology Department and/or Director of ESL. 3 lecture hours, 3 institutional credits.

BIO 006 – Introduction to the Human Body for English Language Learners

This course is an introduction to the fundamental concepts of anatomy and physiology of selected body systems for level 6 ESL students. It is designed for students who have limited experience in learning the material in an English language format. The course is intended to use a variety of learning tools, including online resources. The underlying theme for the course will be a human body organ systems approach. Corequisites: ESL 061/062, ESL 086, ESL 096 or permission of the Chair of the Biology Department and/or Director of ESL. 3 lecture hours, 3 institutional credits.

BIO 100 Natural History of New Jersey

A study of New Jersey's natural history including the flora, fauna, geology, and a historical background of its diverse environments. The lectures focus on man's role in changing the face of New Jersey. Two field trips, to be held on weekends, will explore selected regions of the state. This course is intended to serve as an elective and not to fulfill a lab science requirement. 3 lecture hours per week. 3 credit hours.



What are Institutional Credits?

These are credits for developmental courses that provide the skills and confidence to succeed in college-level courses. Developmental courses are numbered 099 and below, they do not meet graduation requirements and will not transfer to four-year colleges.

▲ BIO 101 Introduction to Biology

A one-semester introductory course for non-Biology majors covering the basics of life science including scientific method, origin of life, the cell, energy processes, genetics, evolution, and other topics which can be applied to everyday living. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 102 Human Biology

This course is an introduction to human anatomy and physiology for the non-Biology major. It is designed to develop an appreciation for the structure and functions of the human body; to point out the relationship of body systems to health and disease; and to emphasize human biology as it relates to everyday living experiences. Not open to students who have taken BIO 105-106. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 103 Biology of People and the Environment

A study of ecological principles and their application to man's role in the biosphere. Population growth, technology, and the social dilemmas posed are viewed in terms of their contributions toward the degradation of environmental quality. The future of man and how he will cope with these problems is discussed. One or more all day field trips on weekends may be required in lieu of some regularly scheduled sessions. Not open to students who have taken BIO 208. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 104 A Survey of the Animal Kingdom

A one-semester survey of the principal types of animals for the non-Biology major. The course will cover the structure, function, and ecology of the major animal groups. Emphasis will be placed on the importance and interaction of these animals to humans. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 105 Anatomy and Physiology I

The study of the organ systems from the perspective of their structure, processes, and regulation. The course specifically deals with cells, tissues, integument, skeletal system, muscular system, and nervous system. Prerequisite: High School Biology and/or Chemistry. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 106 Anatomy and Physiology II

A continuation of Anatomy and Physiology I intended to complete the required two-semester sequence. The course covers the following systems: endocrine, respiratory, circulatory, lymphatic, digestive, urinary, and reproductive. Prerequisite: BIO 105. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 107 Decisions for Wellness

A one-semester non-Biology majors course that focuses on wellness and several quality of life issues. The course will also discuss disease prevention and functioning optimally on a daily basis in order to enhance one's life now as well as in the future. There is no dissection required in this course. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 108 Microbiology

A study of microbial life on earth including microbial cell biology, growth and metabolism, genetics, diversity and evolution, effects on the environment, and the interactions between microorganisms and higher forms of life. Emphasis will be placed on the relationship between microorganisms and humans and current efforts to track and control infectious diseases worldwide. Prerequisites: BIO 105 or one semester of college-level chemistry. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 109 Nutrition

This is an introductory course in nutrition. It is designed to provide the non-Biology majors student with the chemistry and function of all essential nutrients. It will also discuss current ideas and thinking in nutrition as well as an introduction to methods of research in nutrition. Diseases associated with nutrients as well as those prevented by nutrients will be discussed. Prerequisites: BIO 101, 102, 105, or 112 or any introductory college chemistry courses. If a student has no science background, permission of the Department Chair may be granted to highly motivated students. This course does not fulfill a lab science requirement. 3 lecture hours per week. 3 credit hours.

▲ BIO 110 Human Heredity

A one-semester introductory course for non-Biology majors focused on basic human genetics and evolutionary theory. Students will learn modern concepts of heredity and evolution, and their impact and application on everyday life. One all day field trip on a weekend may be required in lieu of some regularly scheduled sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 111 General Biology I

This course, designed for Biology majors, focuses on the study of the cell as the basic unit of structure and function of all living organisms. The student is introduced to important hypotheses and concepts of modern cell biology (including those relevant to cell chemistry, cell architecture and function, genetics, and the origins of cellular life) as well as techniques and methods for studying cells. Prerequisite: completion of all remedial English courses. Required for Biology majors. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 112 General Biology II

This course, designed for Biology majors, is a basic introduction to the structure and function of representative types of plants and animals emphasizing the basic problems facing all multicellular organisms and the variety of solutions which have evolved. The course stresses the evolution of organ systems from simple to complex species. Prerequisites: completion of all remedial English courses. Required for Biology majors. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 113 Plants, People and Society

Life on Earth, including humans, depends on green plants. The development of civilization has paralleled mankind's use and domestication of plants for food, fiber, medicine, fuel, and ornamentation. This course will study how, why, and where plants grow and the direct and indirect effects they have on diverse cultures around the world. Students will learn how the use of certain plants has shaped the modern world and the civilizations from which our societies have evolved. Emphasis will be placed on current events related to plant science and society, including, but not limited to, plants as sources of medicine and how plants can feed an ever-increasing human population. Will not fulfill the lab science requirement. 3 lecture hours per week. 3 credit hours.

BIO 114 General Horticulture

An introduction to the basic principles of horticulture. Theories and methods of plant propagation, control of plant growth, pest management, and pruning are covered. Soils, mineral requirements, growing structures, and plant identification are investigated. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 115 The Seed Plants

A thorough study of the dominant plant form on earth today - the seed plants. Emphasis is on the morphology and taxonomy of the major angiosperm families. Basic principles of plant physiology are investigated. Laboratory and field exercises. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 116 The Plant Kingdom

A general systematic study of the plant kingdom from algae to flowering plants. The morphology and physiology of representative groups are studied. Emphasis is on the evolution of the plant kingdom. Laboratory and field exercises. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 118 Introduction to the Biology of Women

This course will present aspects of basic human biology that are unique to the female. This course will emphasize the female lifespan including sex cell formation, menopause, and aging. Topics relevant to women's health will also be discussed. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 120 Introduction to Biology

BIO 101 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 121 Human Biology

BIO 102 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 122 Biology of People and the Environment

BIO 103 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 123 A Survey of the Animal Kingdom

BIO 104 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 124 Anatomy and Physiology

BIO 105 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 125 Anatomy and Physiology II

BIO 106 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 126 Microbiology

BIO 108 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 127 General Biology I

BIO 111 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 128 General Biology II

BIO 112 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

BIO 150 Hands-On Biology for Teachers

This course focuses on the State of New Jersey's Core Curriculum Content Standards in Science. This course emphasizes the biological topics taught in grades K-12. The course is designed for current and future teachers. Each topic presented will have hands-on activities that can readily be used in the classroom along with background information. This course is intended to serve as an elective and will not fulfill a laboratory science requirement. 3 lecture/laboratory hours per week. 3 credit hours.

BIO 151 Plant Propagation

A study of the theories, principles and techniques involved in the asexual and sexual propagation of horticulturally important plants. The topics of cutting, grafting, layering, dividing, micro-propagation, seeding, and plant breeding will be investigated along with the environmental conditions necessary for successful propagation. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 152 Pest Management

The morphology, physiology, identification, and control of plant pests including viruses, bacteria, fungi, weeds, nematodes and the arthropods. Emphasis will be placed on the characteristics and safe use of pesticides and other means of pest control. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 153 Plant Identification

An intensive study of the trees, shrubs, vines, herbaceous plants, and greenhouse plants of horticultural importance found in New Jersey. In addition to identification, the growth forms, textures, colors, and habitat requirements will be covered. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 155 Greenhouse Management

The management practices necessary for the successful production of greenhouse crops will be studied with an emphasis on the practical operation of greenhouses. Structural designs of greenhouses, equipment, environmental influences, fertilizers, pest control, production costs, and crop scheduling will be covered in relation to the management of the major greenhouse crops. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 202 Biotechnology

A one-semester course for science students. The course will cover scientific principles and techniques in Biotechnology; products and applications in agriculture, microbiology, food and human health; and ethical, legal and social implications of biotechnology. Prerequisite: A college-level Biology course or permission of the Department Chair. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 204 Introduction to Marine Biology

An introductory survey of the marine environment. The course introduces biological, chemical, and physical processes and how these ideas are derived. Biological adaptations to the various marine habitats will be stressed. Certain labs will be conducted as all-day field experiences on weekends. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 208 Ecology

An introduction to basic ecological principles and techniques. Biotic interrelationships are emphasized in the study of aquatic and terrestrial communities. The laboratory combines field investigations with experimental studies. One or more all day field trips on weekends may be required in lieu of some regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO 230 Western Science: Its Development

A study of the development of human ideas about the physical world. The course will follow the changes in the Western outlook toward the world and the role of humankind in that world. Topics will also concentrate on the development and growth of the ideas which have formed the modern natural sciences. Prerequisites: HIS 101 and 102 or permission of the instructor. This course will not fulfill a laboratory science requirement. 3 lecture hours per week. 3 credit hours.

BIO 241 Clinical Microbiology

A specialized course for students with a need for knowledge of clinical microbiological procedures. Emphasis is on clinical specimen collection, specimen preparation, and identification procedures for aerobic and anaerobic bacteria, fungi, and parasites. Prerequisite: BIO 108. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

BIO 266 General Pathology

A study of the basic concepts of pathological processes in the body system. Diseases are studied with emphasis on structural and functional interrelationships of etiology, pathogenesis, diagnosis, treatment, and prognosis of disease processes. This course does not fulfill a lab science requirement. Prerequisites: BIO 105 and BIO 106. 3 lecture hours per week. 3 credit hours.

BIO 270-279 Topics in Biology

Studies of selected topics, issues or events in Biology. The subjects covered will demonstrate that Biology is a dynamic, ever-changing, and expanding scientific domain that impacts on the lives of all individuals. These courses will allow for in-depth studies of current and specific aspects of Biology as well as general topics that will appeal to a broad segment of the community. Individual topics are announced prior to registration. These courses do not fulfill a laboratory science requirement. 1, 2, 3 or 4 credit hours depending on the topic.

BIO 290-299 Independent Study in Biology

One-semester courses designed to cover an approved in-depth exploration of some aspect of Biology. The course is intended to provide the students with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current Biology courses. This course will not fulfill a laboratory science requirement and requires the recommendation and permission of the Department Chair and instructor as a prerequisite for registration. It is recommended that the student have at least two semesters of college Biology. Prerequisites: BIO 111 and 112 or permission of Department Chair. Course may be taken for 1, 2, 3 or 4 credit hours.

BSM • Sport Management

BSM 101 Introduction to Sport Management

This course is an overview of sport management and presents both the theoretical foundations and the subsequent applications of these principles. Some of the topics include sponsorship, volunteerism, marketing, liability, ethics, and labor relations. Prerequisites: ENG 088 and ENG 098. 3 lecture hours per week. 3 credit hours.

BSM 110 The Evolution of American Sports

This course explores the evolution of American sports from the early Puritan mistrust of sporting events through the baseball steroid scandals of the present day. A strong emphasis is placed on the relationship among sport, society, and culture. This course explains that sports can be a bond that unites people of different races, backgrounds, and economic conditions. The course also explores the rise of intercollegiate sports, the rise of women's sports, professional and amateur sports in the age of television, and the quest for equity in sports. Prerequisites: ENG 088 and ENG 098. 3 lecture hours per week. 3 credit hours.

BSM 205 Sports in Society

This course offers a global, issues-oriented approach to sports. The emphasis is on sports and sport-related actions as they occur in social and cultural contexts. Topics include how sport is impacted by children and young adults, violence, gender, social class, media, politics, and race and ethnicity. Prerequisite: BSM 101 and ENG 101. 3 lecture hours per week. 3 credit hours.

BSM 210 Sport & Law

This course examines legal issues affecting the safe development and delivery of sport and physical activity programs. Major topics include equal opportunity legislation, tort liability, product liability, participant liability, and the legal rights and obligations of supervisors and participants. In addition, the course examines the laws and regulations which govern the business of sport and sport organizations. Prerequisites: BSM 101 and ENG 101. 3 lecture hours per week. 3 credit hours.

BSM 220 Current Issues in Sports

This course offers a comprehensive study of current issues in sports. A strong emphasis will be placed on current economic issues and concerns such as a proposed salary cap in professional baseball. Issues will be explored in light of cultural and social contexts. Topics will include steroid use in all levels of sport, buying championships, the modern sport stadium pricing out the ordinary fan, corporations taking over the Olympics, the influence of corporations on what sports are produced and televised, the influence of money on college sports, the winning at all costs mentality, the failure of soccer to become an American phenomenon, how media influences sports, new media technology and its impact on sports, fantasy sports and the growth of action sports. Prerequisites: BSM 101 and ENG 101. 3 lecture hours per week. 3 credit hours.

BUS • Business

BUS 101 Introduction to Contemporary Business

Overview of all phases of business, including ownership, marketing, personnel, finance, managerial controls, and the relationship of government and business. The relationship of business to the social and economic environment in which it operates. Practical orientation and emphasis on relationships between business concepts and potential business careers. 3 lecture hours per week. 3 credit hours.

BUS 105 Organization and Management

Background and development of the structure and functions of modern business; principles of organization and management; functions of major departments of the modern industrial enterprise and analysis of their interrelations and interdependence; methods of executive control and applications of basic principles. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 107 Personnel Management

Techniques of personnel administration; job analysis and evaluation; recruitment, interviewing, placement, training, and education; employee health and safety, benefits and morale; public and community relations; personnel research, audits, and reviews. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS110 Business and Technology

This course explores how technology influences all aspects of business and industry including societal issues surrounding their use. Some of the topics include current computer technology and terminology, the Internet, societal issues related to digital media, mobile devices, and wireless devices. Emerging technologies will be explored. Prerequisite: ENG 089 and ENG 099. 3 lecture hours per week. 3 credits.

BUS 115 Personal Finance

This course is designed to give a practical introduction to personal finance. It addresses realistic ways to manage personal assets effectively. Topics covered include the economy; working, planning, and budgeting; sensible shopping and spending; avoiding fraud and swindles; buying, insuring and financing a car; buying and selling a home; housing costs and regulations; renting a home; banking services; credit and borrowing; investments in stocks, mutual funds and real estate; life, health and income insurance; retirement and estate planning; and income tax. 3 lecture hours per week. 3 credit hours.

BUS 136 Retailing Techniques

Function of the retailer. Retail establishments and the changes in merchandising. Management techniques, organizations, effective control, and profitable operation. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 137 Salesmanship

A study of the effective methods of retail selling, application of psychological and persuasive selling techniques. Students prepare and conduct sales presentations on an individual and group basis. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 138 Retail Buying and Merchandising

This course introduces the student to the organizational structure at the retail buying and merchandising function. The various techniques for coordinating an effective buying and merchandise program are studied. 3 lecture hours per week. 3 credit hours.

BUS 200 Small Business Management

A course designed to introduce the student to the principles of small business management and the functions of planning, organizing, financing, staffing, marketing, and directing a small business enterprise. 3 lecture hours per week. 3 credit hours.

BUS 201 Business Law I

Legal aspects of common business transactions, including judicial procedures, contracts, torts, crimes, and agency law. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 202 Business Law II

Uniform Commercial Code and legal aspects of sales, negotiable instruments, corporations, partnerships, real and personal property, government regulation of business, bankruptcy, insurance, and inheritance. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 203 Principles of Advertising

A fundamental survey of the field of advertising as it relates to the total marketing program. Major topics covered include: advertising as a part of the marketing program, behavioral considerations in advertising, advertising campaigns, strategy and production, and the legal implications in advertising. This course also focuses on the functional interrelationships of advertisers, agencies, and media. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

BUS 205 Principles of Finance

A study of the fundamental concepts of finance. This includes financial analysis; planning and control; working capital management including bank and non-bank financing; time value of money; capital. Prerequisites: ACC 103 and ECO 201. 3 lecture hours per week. 3 credit hours.

BUS 208 Principles of Marketing

Description and evaluations of procedures and institutions involved in the movement of goods from producers to consumers. Analysis of procedures and practices of wholesalers and retailers in relation to the current economic, social, and political environment. 3 lecture hours per week. 3 credit hours.

BUS 209 Introduction to Global Business

An introduction to the theory and practice of international business: theory of international trade, international investment and monetary system, international marketing, management, finance, foreign exchange markets, importing, exporting trade agreements, NAFTA, GATT, trade barriers and the EU. The impact of cultural, economic and political environments on international business will provide preparation with a global focus. 3 lecture hours per week. 3 credit hours.

BUS 210 Marketing and the Global Environment

Examines the historical foundation of cultural, political, and economic diversity and its effect on marketing. Discusses the forces related to the emergence of the global marketplace: trade liberalization 1. advances in communications, 2. the role of mass media in introducing the ideas and the lifestyles of other cultures, and 3. transport technology. Prerequisites: ENG 088, BUS 101, BUS 208. 3 lecture hours per week. 3 credit hours.

BUS 223 Introduction to Entrepreneurism

This course will give the student a clear and comprehensive introduction to business skills and principles, which support independent business innovation, ownership, and management. This course departs from the traditional small business management courses by incorporating new themes and principles of management more appropriate to self-conceived and self-directed small business innovators striving to survive in a dynamic global and technological business environment. It will address topics such as the innovative process, creating markets, technology support of innovation, and how a small business can establish a market presence and compete successfully against large competitors. 3 lecture hours per week. 3 credit hours.

BUS 290 Co-op Education Experience

An externship of approximately 200 hours in a business position with a local business or industry with or without compensation. If an externship cannot be arranged, a term project on or off campus will be assigned. A weekly seminar on campus is included. An elective may be substituted. This course is open to only matriculated students in the A.A.S. degree business program. Co-op should be taken in student's last year of program. By arrangement with the Departmental Chair. Ten lecture hours and 200 externship hours. 3 credit hours.

BUS 295 Special Projects

This course is designed for students with individual needs in specific aspects of business. Students must receive approval from department chair prior to registering. 3 credit hours.

CHE • Chemistry

CHE 005 Introductory Chemistry

Introduction to the fundamental concepts of chemistry for students who have had no High School Chemistry or who need a review before enrolling in CHE 105, CHE 111 or CHE 113. Prerequisites: ENG 099, MAT 022 or equivalent. 3 lecture and 3 laboratory hours per week. 4 institutional credit hours.

CHE 025 Introductory Chemistry

CHE 005 without the laboratory component. Students will attend same lecture and be responsible for the same assignments (excluding laboratory) as students in CHE 005. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. Prerequisite: ENG 099, MAT 022 or equivalent. 3 lecture hours per week. 3 institutional credit hours.

▲ CHE 101 Chemistry I

The chemical view of matter, atomic structure and theory, chemical bonding, stoichiometry, oxidation reduction and solutions. This course is primarily intended for non-science majors. Students who have not had High School Chemistry must take CHE 101. Students offering High School Chemistry as an entrance requirement may take CHE 102 as a first course. Prerequisites: ENG 099, MAT 022 or equivalent. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 102 Chemistry II

A continuation of CHE 101, covering nuclear chemistry, organic chemistry, biochemistry, current topics related to pollution and the environment. Prerequisites: CHE 101 or High School Chemistry, ENG 099, MAT 022. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 105 Chemistry-Health Sciences

Study of selected topics in general, organic, and biological chemistry oriented toward health sciences. Students pursuing the Bachelor's Degree in Nursing should take CHE 113/114 instead of CHE 105. Prerequisites: High School Chemistry and a satisfactory grade on the chemistry placement test or CHE 005, high school algebra or MAT 022, ENG 099. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 106 Consumer and Environmental Chemistry

A one-semester course primarily for non-science majors presenting as many basic concepts of chemistry as are necessary to convey an appreciative understanding of the nature of the science and its relation to life. The focus is on the interrelationships among atoms, molecules, man and his chemical products. Topics are chosen from the areas of air and water pollution, consumer products, chemical action of the body, drugs and medicines, combustion, and chemical energy. Prerequisite: ENG 099. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 111 General Chemistry I

Atomic structure, chemical bonding, molecular geometry, stoichiometry, states of matter, and solutions. Primarily for science and engineering students. Prerequisites: High School Chemistry; and a satisfactory grade on the chemistry placement test or CHE 005; ENG 099; MAT 119 or higher. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 112 General Chemistry II

A continuation of CHE 111, covering electro-chemistry, descriptive chemistry of the elements, thermodynamics, chemical kinetics, chemical equilibrium, acids and bases, ionic equilibrium, complex compounds, and nuclear chemistry. Prerequisite: CHE 111 or permission of the Department Chair. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 113 Principles of Inorganic Chemistry

Topics in general and inorganic chemistry including elements, compounds, mixtures, atomic structure, gas laws, solutions, acids and bases, radioactivity. This course and CHE 114 serve as a one-year sequence for students seeking a B.S. in nursing or a health-related field. Prerequisites: High School Chemistry and a satisfactory grade on the chemistry placement test, or CHE 005; high school algebra or MAT 022; ENG 099. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 114 Principles of Organic Chemistry and Biochemistry

Introduction to the basic concepts of organic and biochemistry oriented toward the health-related fields. Topics include nomenclature, reactions, and stereochemistry of the major classes of organic compounds; the basic chemistry of carbohydrates, proteins, lipids, nucleic acids, and enzymes in relationship to the metabolism of living organisms. Prerequisite: CHE 111, or CHE 113 or permission of the Department Chair. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 120 Chemistry I

CHE 101 but without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 121 Chemistry II

CHE 102 but without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 122 Chemistry-Health Sciences

CHE 105 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory requirement at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 124 Consumer and Environmental Chemistry

CHE 106 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for general interest and for students who have completed the laboratory at another institution. This course is offered online. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 125 General Chemistry I

CHE 111 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 126 General Chemistry II

CHE 112 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 127 Principles of Inorganic Chemistry

CHE 113 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 128 Principles of Organic Chemistry and Biochemistry

CHE 114 but without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

▲ CHE 211 Organic Chemistry I

A study of the principal classes of aliphatic and aromatic compounds, types of reactions and reaction mechanisms, molecular orbital approach to bonding, and stereochemistry. The first semester of a two-semester sequence. Prerequisite: CHE 112 or permission of the Department Chair. 3 lecture and 6 laboratory hours per week. 5 credit hours.

▲ CHE 212 Organic Chemistry II

A continuation of the study of functional groups, reactions and reaction mechanisms, spectroscopic examination of organic compounds, introductory biochemistry. The second semester of a two-semester sequence. Prerequisite: CHE 211 or permission of the Department Chair. 3 lecture and 6 laboratory hours per week. 5 credit hours.

CHE 221 Organic Chemistry I

CHE 211 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 222 Organic Chemistry II

CHE 212 without the laboratory component. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the course with laboratory. Students must meet the same prerequisites. This course will not fulfill a college laboratory science requirement. Primarily intended for students who have completed the laboratory at another institution. Permission of the Department Chair required. 3 lecture hours per week. 3 credit hours.

CHE 290 Independent Study in Chemistry

A one-semester course to cover an approved in-depth exploration of some aspect of chemistry. The course is intended to provide the students with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current chemistry courses. This course will not fulfill a laboratory science requirement and requires the recommendation of the instructor. It is recommended that the student have at least two semesters of college chemistry. Prerequisite: Permission of Department Chair. Course may be taken for 1, 2, 3 or 4 credits.

CHN • Chinese

CHN 101 Beginning Mandarin Chinese I

This course will provide students with a solid foundation in pronunciation, grammar and proficiency in the four language skills of understanding, speaking, reading and writing. Media are incorporated into classroom experience. Native speakers of Mandarin Chinese must get approval of Modern Languages Coordinator or the instructor. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

CHN 102 Beginning Mandarin Chinese II

CHN 102 is a continuation of CHN 101. This course will cover the equivalent of CHN 101. An emphasis in this course will be on building up vocabulary and sentence patterns. Students will be required to prepare and perform role-plays to carry out conversations in Mandarin Chinese on a range of topics and in real life situations that are readily understood by students. Students will be expected to understand, speak, read and write all new words that appear from the textbook, workbook, character workbook and the materials from other sources. Media will be incorporated into classroom experience. Native speakers of Mandarin Chinese must get approval of Modern Languages Coordinator or the instructor. Prerequisite: CHN 101 or 2 years high school Chinese. 3 lecture hours per week. 3 credit hours.

CHN 111 Intermediate Mandarin Chinese I

This course is designed to review and consolidate the fundamentals that students have built in their beginning Mandarin Chinese courses. Students will continue to expand their repertoire of grammatical structures and to build up vocabulary. This course will develop more reading, writing, listening and speaking skills so that students can apply Mandarin Chinese to good use in and beyond the classroom. Native speakers of Mandarin Chinese must get approval of Modern Languages Coordinator or the instructor. Prerequisite: CHN 101, CHN 102 or three years high school Chinese. 3 lecture hours per week. 3 credit hours.

CHN 112 Intermediate Mandarin Chinese II

This course is designed to review and consolidate the fundamentals that students have built in Beginning Mandarin Chinese courses and Intermediate Mandarin Chinese I. Students will continue to expand their repertoire of grammatical structures and to build up vocabulary. This course will develop more reading, writing, listening and speaking skills so that students can apply Mandarin Chinese to good use in and beyond the classroom. Native speakers of Mandarin Chinese must get approval of Modern Languages Coordinator or the instructor. Prerequisite: CHN 111, or three years high school Chinese. 3 lecture hours per week. 3 credit hours.

CIS • Computer Information Systems

▲ CIS 100 Introduction to Computer Applications

This course introduces students to basic computer concepts. The course also focuses on a current version of Microsoft Office Professional. Students experience hands-on instruction in word processing, spreadsheets, databases, and professional presentations. This course prepares students to succeed in both college and the business world by enabling them to write reports, analyze and chart data, and prepare presentations. Prerequisite: ADM 101, ENG 088, MAT 011. 2 lecture and 2 laboratory hours per week. 3 credit hours.

▲ CIS 101 Introduction to Information Systems

This course is an introduction to the many facets of computer information systems. The course provides an understanding of system concepts, information technology, and application software. It also introduces students to how information is used in organizations and how information technology enables improvement in quality and timeliness of information. It gives students the characteristics of professionals and of possible career paths. Topics include ethical and societal issues, organizing data and information, telecommunications and networks, e-commerce, and management information systems. With hands-on experience, the course supports the concept of problem solving with computers via applications and the Internet. Prerequisites: CIS 100, ENG 088, MAT 022. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 103 Windows Operating Systems

This course introduces the student to an up-to-date version of a popular operating system, Microsoft Windows. The student will have "hands-on" experience using many of the features of Windows. Topics include: working with applications and documents, managing files, folders and disk, using Windows efficiently, using the control panel, using WordPad, creating graphics with Paint, and using other Windows accessories. 1 lecture and 1 laboratory hour per week. 1 credit hour.

CIS 106 Java Programming

This course introduces the study of Sun Microsystems Java programming. It begins at the elementary level and continues with more detailed and practical knowledge. Students should have prior programming experience for successful completion of this course (especially C or C++). 2 lecture and 2 laboratory hours per week. 3 credit hours.

 **Do you need a flexible schedule?**

Take a weekend or evening class to fit learning into your busy life. Or, consider an online course to help you reach your goals!

CIS 107 Operating Systems for Help Desk

This course is a survey of today's leading operating systems. Students learn operating systems from both an end-user and administrative standpoint. Prerequisites: ENG 089, ENG 099. 3 lecture hours and 1 laboratory hour. 3 credits.

CIS 110 Computer Literacy

This course introduces students to a variety of computer topics including the history and evolution of computers, DOS and Windows, applications, ergonomics, networks, and the Internet. Corequisite: ADM 101 or equivalent. 1 lecture and 1 laboratory hour per week. 1 credit hour.

CIS 111 Integrating Technology in the Curriculum

This course provides students with an in-depth knowledge of how to integrate technology into educational environments. Topics include the Internet, introduction to productivity software applications for educators, hardware, analysis of technology, integrating multimedia and education software applications, using digital equipment in the classroom, and creating curriculum pages. Prerequisite: ADM101. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 113 Word I

This course introduces the student to the use of a current version of Microsoft Word. Topics include: creating/editing documents, formatting, spell checker/thesaurus/grammar checker, widow/orphan control, headers/footers, multiple windows, find/replace, Auto text, templates, Wizards, borders, Microsoft Draw, WordArt, tables, columns, styles, and more. Materials covered in this course helps prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in Word. This course is also listed as ADM 213. Prerequisites: ADM 101, ENG 089 and ENG 099. 2 lecture and 3 laboratory hours per week. 3 credit hours.

CIS 115 Excel I

This course introduces the student to the use of a current version of Microsoft Excel. Students build a worksheet from a beginning level to an intermediate level. Topics include creating and formatting a worksheet, enhancing a worksheet, absolute and relative referencing, functions, advanced formulas, dates, times, financial functions, templates, multiple worksheets/files charts, and more. Material covered in this course helps prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in Excel. This course is also listed as ADM 215. Prerequisites: ADM 101, ENG 089 and MAT 011. 2 lecture and 2 laboratory hours per week. 3 credits.

CIS 116 Access

This course introduces the student to the use of a current version of Microsoft Access. Students create a database and learn to maximize productivity. Some of the topics included are creating a database, organizing and retrieving data, working with tables, creating queries and advanced queries, building forms, reports and data access pages, automating and extending Access, entering criteria, sorting, structure, validation, referential integrity, the World Wide Web, Hyperlink fields, briefcase replication, Wizards, and macros. Materials covered in this course help prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in Access. This course is also listed as ADM 216. Prerequisites: ADM 101, ENG 089 and MAT 011. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 117 PowerPoint

Students learn how to create professional-looking presentations using a current version of Microsoft PowerPoint. Some of the topics covered are creating and editing, table slides, templates, ClipArt Gallery, autoshapes, drawing tools, organization charts, enhancing presentations, slide time, running an automatic slide show, selecting color schemes, captions, integrating Word and Excel, creating presentations for a Web page, AutoContent, Hyperlinks, and more. Materials covered in this course helps prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in PowerPoint. Prerequisites: ADM 101 and ENG 088. 2 lecture and 2 laboratory hours per week. 3 credit hours.

▲ CIS 120 The Internet

This course is all about the Internet. Topics include background of the Internet, ethics and etiquette of the Web, protocols, basic UNIX commands, HTML, designing and creating for the World Wide Web. Students entering this course should have basic keyboarding skills, knowledge of computers and Windows. Prerequisite: ADM 101 or equivalent. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 121 HTML

This course is an in-depth study of HTML (HyperText Markup Language) and its use in creating Web pages. Students will learn to add functionality to Web pages using JavaScript and DHTML (Dynamic HTML). In addition, students will be taught the basics of XML (Extensible Markup Language). Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 122 Web Page Development

This course introduces students to web page development. Students learn elements of HTML, design, and a current version of Microsoft FrontPage. Topics include web page structures, tables, frames, forms and validation, multimedia web pages, and Java applets. Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 124 Web and Multimedia

This course introduces students to the web and multimedia. Students learn what multimedia is and why it is so important. They should be able to distinguish between appropriate and inappropriate uses of multimedia. Students learn practical applications as well as relevant trends and issues surrounding multimedia, such as copyright, privacy, and censorship. Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 126 E-Commerce Fundamentals

This course is a comprehensive introduction to the world of electronic commerce. It covers key technologies used in electronic commerce. Some of the topics discussed are: strategies for business-to-consumer, business-to-business electronic commerce, security, ethics, legal issues and more. Prerequisite: CIS 120. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 130 Introductory Visual Basic

This course is an introduction to object-oriented, event-driven programming and graphical user interfaces using Microsoft Visual Basic. The topics include building an application, working with controls, designing a VB form, changing properties, writing subroutines. Basic knowledge of computers and Windows is essential for successful completion of this course. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 132 Intermediate Visual Basic

This course is a continuation of CIS 130. It involves learning the elements of good graphical interfaces and how to develop them using graphical programming languages. The design element includes windows, menus, dialog and other boxes, and the use of color and controls. Development includes customizing windows, using tools, and working with files. Prerequisite: CIS 130. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 140 Help Desk Concepts and Customer Service

This course provides an overview of the topics relevant to working at a help desk including customer service skills. Topics discussed in this course include: help desk concepts, roles and responsibilities, help desk operations, help desk processes and procedures, tools and technologies, performance measures, ergonomics, customer satisfaction, listening and communications skills, handling difficult customers, solving and preventing problems, and more. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 202 Structured Systems Analysis and Design

This course is a general study of concepts related to information systems and the role of the systems analyst. Topics include: the systems development life cycle, feasibility study, data flow diagrams, data dictionaries, file, reports, and business forms. Prerequisite: CIS 201 or CSC 102 or permission of Coordinator. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 204 Database Management

This course teaches the student about database design; modeling concepts, symbols, and techniques; normalization; and form development. One of the leading database managers will be used to construct databases, screen, reports, queries, and data validation routines. Prerequisite: CIS 116 or ADM 216. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CIS 205 Data Communications and Networks

This course teaches students the basics of business data communications and networks. It includes both recent data communications trends and fundamental concepts. Students are introduced to the many types of connections found within computer networks, the technologies necessary to connect computers and networks, and actions that occur when a data transmission produces an error. Topics include: firewalls, network operating systems, telecommunications, and security. Prerequisite: CIS 101 or CIS 120. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIS 207 PC Troubleshooting and Repair

This course provides students with a foundation of both PC hardware, software, and Internet concepts. The course also affords students a practical knowledge of baseline IT skills and technologies enabling students to solve basic PC problems. Prerequisite: CIS 107. 2 lecture and 2 laboratory hours. 3 credits.

CIS 210 Principles of Information Security

This course introduces the student to the field of information security. It presents both the managerial and technical components of security. Students will learn about the legal, ethical and professional issues in Information Security. Other topics include logical and physical design for security, implementing security, and maintaining security. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

CIT • Construction Engineering Technology

CIT 104 Construction Management

An introduction to the construction industry, including topics on types of construction contracts and specifications, construction materials, equipment and methods, project planning and scheduling, and project safety. 3 lecture hours per week. 3 credit hours.

CIT 108 Soil Mechanics

A study of soil as a basic construction material, including the relationship of geology to soil characteristics, the study of soil physics and the behavior of soil under various loading conditions. Topics include soil composition and terminology, properties and behavioral analysis under load, site exploration and sampling techniques. Additional topics are soil reinforcement and improvement methods, bearing capacity, shallow and deep foundations, consolidation and settlement, and soil structures. Common laboratory and field testing procedures are also covered. Prerequisite: MAT 143. 2 lecture hours and 2 laboratory hours per week. 3 credit hours.

CIT 201 Structural Design

A study of the fundamentals of structural design and drafting, covering applications in steel, reinforced concrete and wood construction. Reference to appropriate codes and specifications, methods for selecting standard beams, columns, tension members, connections, and concrete reinforcing bars are studied and practiced. Relationship of structural framing plans, details and shop drawings to specific learning topics is also covered. Prerequisites: CIT 210, MET 109. 3 lecture hours and 1 laboratory hours per week. 3 credit hours.

CIT 203 Estimating

A study of the fundamentals of quantity take-off, cost estimating for construction projects including site work and excavation, concrete and masonry work, structural steel, carpentry and other specialty work. The basics of construction economics, labor costs and equipment costs will be discussed, as well as the use of estimating software. Prerequisite: CIT 104, MAT 022. 2 lecture hours per week. 2 credit hours.

CIT 205 Surveying I

This course is the first of a two-part introductory sequence in plane surveying which includes the measurement of distances, elevations, angles and directions. Principles and use of traditional and modern surveying instruments are covered in lecture and practiced in the laboratory and in the field. Fundamental surveying computations are also covered. Prerequisites: MAT 143, MET 109. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

CIT 206 Surveying II

A continuing study of plane surveying and its applications, including area partitioning computations, horizontal and vertical curves, earthwork volume computations, boundary surveying and subdivision layout, topo surveying and mapping, and construction survey methods. Prerequisites: CIT 205. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

CIT 210 Strength of Materials

A study of the relationship between the external forces on a body and the resulting internal stresses and deformations caused to that body. Topics include the mechanical/structural properties of materials, shear and moment diagrams, beam stresses and deflections, design of beams and columns, connections, and torsion in members. Calculations use units from both the English and SI (Metric) systems. Computer software programs are used to analyze and solve typical problems. Prerequisite: MET 112. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIT 214 Construction Procedures

An introduction to heavy construction practices. Emphasis is on construction equipment, site preparation, earthmoving, compaction, dewatering, piles, drilling and blasting, and tunneling. Case studies in heavy construction are used. Sustainability of the construction process and materials will be integrated throughout the course with emphasis on recent advances and research in the area of green construction procedures, equipment and materials. Each procedure and types of equipment and material will be analyzed as to the overall properties of the material and its value relative to issues of sustainability (lifecycle costs/environmental stewardship/local resource). Prerequisites: ENG 088, ENG 098, MAT 143, and CSC 115. 3 lecture hours per week. 3 credit hours.

CIT 215 Fluid Mechanics

A study of pressure, flow, and viscosity in fluids. Forces on submerged areas and buoyancy are computed. Friction losses in pipelines, valves and fittings are calculated, series piping systems are analyzed, and pumps are sized. Applications include analysis of flow through non-circular sections. Computer software programs are used to analyze and solve typical problems. Prerequisite: MET 112. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

CIT 285 Special Topics in Civil/Construction Technology

A topic of current interest in surveying and/or civil/construction engineering technology, which meets the needs and interests of the student, arranged in advance with program coordinator approval. Student will submit a proposal conforming to Union County College syllabus format outlining course content, objectives and learning outcomes. Prerequisite: Permission of the Coordinator. Credit by Arrangement.

CIT 290 Co-op Education Experience

A work-externship comprising a minimum of 200 hours of employment related to surveying or civil/construction engineering technology, with a municipal engineering organization, a building contractor, surveyor, architect, or a private engineering firm. Prerequisite: Permission of the Coordinator. 3 credit hours.

CIT 295 Independent Study

A special research or design project in surveying or civil/construction engineering technology for the advanced student with individual needs. Prerequisite: permission of the Coordinator. Credit by arrangement.

CLPN • Clinical – Nuclear Medicine

CLPN 901 Clinical Practicum I

This is a 4 part series of clinical practicum which provides the student supervised practice in the procedures required to become a nuclear medicine technologist. The student progresses from an observation phase to the assisting phase as part of the professional healthcare team. Competency evaluations are performed throughout the clinical practicum series. Corequisite: NMTM 120.

CLPN 902 Clinical Practicum II

Continuation of Clinical Practicum I. Student participates in supervised clinical practice at contracted clinical education sites. Lab practice hours are required to complete various patient care and procedure competency evaluations. Corequisite: NMTM 121.

CLPN 903 Clinical Practicum III

Continuation of Clinical Practicum II. The student participates in supervised clinical practice at contracted clinical education sites and advance through the required procedural competency evaluations. Corequisite: NMTM 222

CLPN 904 Clinical Practicum IV

Continuation of Clinical Practicum III. Student participates in supervised clinical practice at contracted clinical education sites. Students are required to complete all of the required clinical competency evaluation required by the program. Prerequisite: CLPN 901, CLPN 902, CLPN 903

CLPR • Clinical – Radiography

CLPR 901 Clinical Practicum I

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in Required participation includes 2 days per week at a contracted clinical education site for 12 weeks after completion of the introductory phase of 4 weeks at the school. This is a non-credited required course. Corequisites: RADM 120, RNTM 103.

CLPR 902 Clinical Practicum II

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in the radiography area. Required participation includes 2 days per week at a contracted clinical education site for 15 weeks. This is a non-credited required course. Pre/Corequisites: CLPR 901, RADM 121, RADM 110.

CLPR 903 Clinical Practicum III

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in the radiography area. Required participation includes 2 days per week at a contracted clinical education site for 6 weeks. This is a non-credited required course. Pre/Corequisites: CLPR 902, RADM 122, RADM 135.

CLPR 904 Clinical Practicum IV

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in the radiography area. Required participation includes 2 days per week at a contracted clinical education site and 2 days per week of clinical related seminars for 6 weeks. This is a non-credited required course. Prerequisite: CLPR 903.

CLPR 905 Clinical Practicum V

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in the radiography area. Required participation includes 2 days per week at a contracted clinical education site for 15 weeks. This is a non-credited required course. Pre/Corequisites: CLPR 904, RADM 223, RADM 211.

CLPR 906 Clinical Practicum VI

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in the radiography area. Required participation includes 2 days per week at a contracted clinical education site for 15 weeks. This is a non-credited required course. Pre/Co requisites: CLPR 905, RADM 224, RADM 213, RADM 201, RNTM 201, RNTL 201L.

CLPR 907 Clinical Practicum VII

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in the radiography area. Required participation includes 2 days per week at a contracted clinical education site and 2 days per week of clinical related advanced seminars and reviews for 6 weeks. This is a non-credited required course. Prerequisite: CLPR 906.

CLPR 908 Clinical Practicum VIII

Student observes, assists with and performs procedures in the clinical setting. This course prepares the student for application of classroom knowledge in the radiography area. Required participation includes 2 days per week at a contracted clinical education site and 2 days per week of clinically related advanced seminars and reviews for 6 weeks and 2 days per week at the school in preparation for the completion of the program. Student must successfully complete the final comprehensive examination prior to graduation from the school. This is a non-credited required course. Prerequisite: CLPR 907

CLPS • Clinical – Sonography

CLPS 901 Clinical Sonography I

This course prepares the student for the application of classroom knowledge to the practice of ultrasound by means of formal scanning labs combined with a clinical internship. Performing basic, general ultrasound examinations in both the laboratory and clinical settings is stressed. Patient care applications, ethical issues, and medico-legal considerations are discussed as they relate to the practice of an ultrasound examination and of the student's place in the clinical setting. Co requisites: DMSM 100, DMSM 102, DMSM 103

CLPS 902 Clinical Sonography II

This course, a continuation from CLPS 901, further prepares the student for the application of classroom knowledge to the practice of ultrasound by means of a clinical internship. Performing basic, general ultrasound examinations in both the laboratory and clinical settings is stressed. The student is expected to perform basic examinations with little, if any, assistance by the end of this course. Pre/Corequisite: CLPS 901, Corequisite: DMSM 104, DMSM 105, DMSM 109, RNTM 102.

CLPS 903 Clinical Sonography III

This course allows for further development of ultrasound examination skills by means of a clinical internship. Various clinical examination competencies will be performed with no assistance by the end of this course. Pre/Corequisite: CLPS 902, Corequisite DMSM 106, DMSM 117.

CLPS 904 Clinical Sonography IV

This course is designed to fine-tune the development of ultrasound examination skills by means of a clinical internship. The student is expected to perform general ultrasound examinations with little or no assistance. Performance of specialized ultrasound examinations at various clinical sites will begin and site-specific competency evaluations will be performed. Pre/Corequisite: CLPS 903, DMSM 111, DMSM 107.

CLPS 905 Clinical Sonography V

This course is the final development of ultrasound examination skills by means of a clinical internship. The student is expected to perform general ultrasound examinations with no assistance and specialized ultrasound examinations depending on the site of attendance and the approval of the designated clinical instructor. Pre/Corequisite: CLPS 904, DMSM 116, DMSM 118, RNTM 201

COM • Communications

▲ COM 100 Communications Technologies

An introduction to the technologies that shape the communications field, with special emphasis on the creative and enabling potential of computer applications and tools, the fundamentals of information literacy and the importance of critical thinking. Students will receive hands-on training in the Windows environment, Microsoft Word and Microsoft PowerPoint, and develop the ability to apply these tools in concert with data gathering, evaluation and management skills, to critically address the challenges that they will face in their academic work, their careers, and in their daily lives as citizens. Prerequisites: ENG 088, 098, if required. 3 lecture and 2 laboratory hours per week. 4 credit hours.

COM 101 Mass Communications

A survey of the nature of contemporary mass media. Analysis and evaluation of the role of mass media in American life. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 102 Reporting and News Writing

Instruction in gathering news and interviewing, practice in news writing. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 103 Introduction to Radio Broadcasting

This overview course is designed to introduce students to the principles of commercial radio broadcasting. Emphasis is placed on technical theory, programming and format, studio operation, radio sales, F.C.C. broadcast law, and production of audition tapes. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 105 Storytelling for Digital Media

This course explores the ways in which storytelling serves as an essential medium for human communication, with specific focus on its central role in the creation of video games, film and multimedia. Students will examine traditional narrative theory with special emphasis on its adaptation for interactive digital media. Topics will include world creation, back-story, plot and story arc, genre, character development, and dialogue. Emphasis will be placed on the craft of storytelling, and the demands of creative development in a collaborative project environment. Prerequisites: ENG 088, ENG 099, if required. 2 lecture and 2 lab hours per week. 3 credits.

COM 106 Introduction to Television: Production and Theory

An introduction to the methods and equipment used in the production of television programs in a studio environment. Discussion of the technical systems on which television is based. Students gain experience by assuming the role of producer/director and various crew positions such as floor manager, cameraman, etc. A critical look at television and its effect as a communications medium. 3 lecture hours per week. 3 credit hours.

COM 107 Publication Editing and Design

This course provides instruction and practice in editing and layout for print publication. Emphasis is placed on coordinating graphic elements with text to develop effective print communications. Instruction includes computer applications. Microsoft Office and Adobe InDesign are used along with complementary image editing and illustration software. Prerequisites: ENG 088, 098 if required. 3 lecture hours per week. 3 credit hours.

COM 108 Principles and Practices of Public Relations

Principles and practices of communication between the public and an individual or organization. Topics covered include mass media, planning, publicity, writing and ethics. Prerequisites: Completion of all developmental English requirements. 3 lecture hours per week. 3 credit hours.

▲ COM 109 Introduction to Film Study

A study of selected films representing the development of the art of filmmaking. The course includes the study of both the technical and cultural elements of film production. Students will learn to think, speak and write about film and filmmaking. 3 lecture hours per week. 3 credit hours.

COM 112 Multimedia Development I

Use and development of multimedia; an introduction to the elements of multimedia design. Students will master the skills necessary to create a multimedia product, from content creation and design planning to the use of presentation management and Web design software. Students will be introduced to the Adobe Creative Suite, learning to incorporate audio, video, graphics and animation into rich media presentations using industry standard software. 3 lecture hours per week. 3 credit hours.

COM 201 Issues in Mass Media

An analysis of the role of the media and popular culture in the formation of our society, our beliefs and ourselves. Students will follow current topics in the media, analyze the media treatment of these issues and examine the present state of the media within its historical framework. Prerequisites: ENG 089, 099 if required and COM 101 or the permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 202 Advanced Reporting and News Writing

Focuses on the principles and problems of feature, beat, and specialty reporting. Students will learn how and where to find newsworthy stories, cultivate sources, and become responsible for a particular beat, feature column or specialty topic. Prerequisites: ENG 088, 098, COM 102 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 203 Audio Production I

An introduction to the skills and technologies that shape the audio production field. Special emphasis will be placed on the creative power of computer applications and tools. Students will receive hands-on training in the Mac and Windows environment using Adobe Audition and develop the ability to record and edit both simple and complex audio projects for the Music, Television, Film, and live sound reinforcement industries. 3 lecture hours per week. 3 credit hours.

COM 206 Television Field Production

This course provides instruction and practice in single camera field production and post-production editing. Emphasis is placed on coordinating audio and visual elements to communicate effectively to viewers. Prerequisite: COM 106 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 207 Advanced Publication Editing and Design

This course builds on material covered in COM 107. Further exploration of principles of attractive layout and design using Adobe InDesign and Adobe Photoshop. Emphasis is placed on teaching students to combine graphic elements with text to create attractive and journalistically-sound layouts. Prerequisite: COM 107 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

▲ COM 209 The Evolution of Film

A study of the cultural impact of film, and the effects of film portrayal upon the way in which we see ourselves and others. Students will develop skills and strategies for the analysis of film drawn from a wide variety of disciplines and approaches. Students will have the opportunity to participate in the creation of film and media projects of their own design. 3 lecture hours per week. 3 credit hours.

COM 212 Multimedia Development II

Multimedia Authoring - Students will expand their skills in content creation and manipulation using an array of software from the Adobe Creative Suite Master Collection including imaging in Photoshop, Web design using Dreamweaver, animation with Flash and audio editing using Adobe Soundbooth. An introduction to Adobe ActionScript will round out the multimedia developer's toolkit. Prerequisite: COM 112 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 213 Audio Production II

An advanced course focusing on contemporary applications of all phases of audio production. Students will work on Mac and PC platforms and learn the fundamental and advanced applications of audio production in both the analog and digital domains. Subjects will include MIDI (Musical Instrument Digital Interface), samples and loops, digital editing, multi-track and sequencing programs including Adobe Audition and Pro Tools, microphone techniques, mixing consoles, software plug-ins and soft synths, mastering, 5.1 Surround Sound, as well as the basic elements of film scoring and syncing audio to film. Students will be prepared for further academic study in the field, and provided with a solid background in audio engineering and production. Prerequisite: COM 203 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COM 214 Communications Practicum I

A variety of assignments offered in cooperation with local newspapers, radio and television stations, and other approved community institutions and agencies. Alternately, students may work on Independent Study projects of an academic or creative nature appropriate to their field of study. The student must attend periodic seminars and/or prepare reports or other projects as required by the instructor. Prerequisite: Permission of the instructor. 30 hours per credit, per semester to be arranged. 1-3 credit hours.

COM 215 Communications Practicum II

Same as COM 214. 30 hours per credit, per semester to be arranged. 1-3 credit hours.

COM 216 Digital Video Editing and Multimedia Imaging

In this course students will learn to compose and edit digital video using Final Cut Studio software including Final Cut Pro, Motion, Soundtrack Pro and Color. Students will be given the opportunity to edit their own video projects as well as work as team members on the video productions of their peers. Special emphasis will be placed on the use of digital video in film and multimedia projects. Students will discuss current technology trends and critically analyze professional and amateur video projects in order to gain insight into improving their own work. Prerequisite: One of the following: COM 106, COM 109, COM 112 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

COMH 211 Intercultural Communication

This is an honors course that touches on the basics of communication theory, but focuses on the application of cultural studies as it borrows concepts from anthropology to study communication. As cultures collide through mediated and interpersonal communication, migration and disasters, a greater understanding of disparate cultural groups and the dynamic processes through which they struggle to gain shared understanding is demanded. By reading the works of Edward T. Hall students will define those aspects of human nature which constitute culture and examine the use of time, space, and context among divergent groups. Media will be considered as primary reinforcers of cultural values, but also as agents of change. Mediated versions of reality are considered through a study of frame analysis and community. As an honors course, content is considered in a seminar format wherein students accept greater responsibility for their learning. Expectations for prepared participation and written works are higher than in a traditional lecture course. 3 lecture hours per week. 3 credit hours.

CRJ • Criminal Justice

CRJ 101 Introduction to Criminal Justice

Introduction to the background and history of law enforcement, the origin of laws, the beginnings of law enforcement, the causes of crime and definition of a criminal, critical areas of law enforcement as related to crime, public morals, and the public image. Corequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

CRJ 102 Police Organization and Administration

Study of the principles of organization and administration as applied to law enforcement agencies; a review of police administration past and present with an evaluation of its future. Course includes study of the impact of behavioral sciences, the changing role and goals of police, the impact of police professionalization, and examination of police organization, administrative services, coordination and consolidation of police services and operational services. Prerequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 103 Introduction to Forensic Procedure

A review of the fundamental techniques used in the analysis and evaluation of physical evidence, including microtechniques, and special subjects of topical interest. Laboratory is included. Analyzing physical evidence using recent developments in non-instrumental and instrumental techniques. Prerequisite: ENG 098. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CRJ 109 Correctional Administration

The study of theories, methods and practices in the administration of punishment with special emphasis on the rehabilitation of the adult offender. Among the major topics are trends in punitive policies, probation, the prison community on the local, state, and federal levels including objectives and treatment methods, parole, and crime prevention. 3 lecture hours per week. 3 credit hours.

CRJ 201 Police Management Systems

Analysis of management improvement, the policies and procedures of personnel effectiveness and their specific application to law enforcement, planning, program and performance budgeting, records management, data processing, communications, leadership, decision making, and operations research. Surveys are used for problem identification, problem solving, and operations auditing. Corequisite: ENG 088. Prerequisite: CRJ 102. 3 lecture hours per week. 3 credit hours.

CRJ 203 Criminal Investigation

A basic course in the methods of searching for truth and relevant information on criminal cases. Includes the police role in preliminary and follow-up investigation, interview techniques, and specialized investigative techniques relative to homicide, rape, robbery and arson. Legal responsibilities and general laboratory and scientific aids to investigation are also included. Corequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 205 Police Role in the Community

The concepts and ethics of the police profession; the police function as a critically sensitive area of public service; the attitudes and actions of the police and the public which create positive and negative relationships between the two; the tension and conflicts within the individual police officer due to enforcement and non-enforcement of popular and unpopular laws and the police officer's relationship to the work group; sensitivity training in the area of human relations. Corequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 206 Criminal Law

A brief look at the intricacies of the administration of criminal justice, a discussion of the elements of common criminal status, the nature and difficulties of proof, the legal rules governing police practices and procedures, the Federal Civil Rights Act, Criminal and Civil Liabilities of Law Enforcement Personnel, and constitutional provisions of particular importance to the police. Corequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 207 Special Police Operations

This course emphasizes the challenge presented to the American Law Enforcement system by both organized crime and political terrorism and offers recommended measures for their control. Corequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 208 Community Supervision of the Offender

A study of theories, practices and the problems of their integration into a meaningful program of supervision in the community for sentenced offenders. Major issues include probation, parole, specialized programs, (e.g., Halfway House, alternative programs, diversionary programs) work and research, and prediction. Corequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

CRJ 223 Criminal Justice Problems in Business and Industry

Techniques and practices that assist private commercial establishments, particularly large industrial plants and department stores, in minimizing losses through security control. Issues that will be covered are physical security, procedural controls, special problems such as business and industrial espionage, riots, shoplifting, and dishonest employees. Corequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

CSC • Computer Science

▲ CSC 100 Computer Programming Fundamentals

Topics include computer instructions, program logic, coding programs, and introduces students to file management and computer development testing programs. Problem solving, critical thinking and programming techniques are emphasized throughout the course. This course is strongly recommended for students interested in the Computer Science degree programs who have little or no programming background. Prerequisite: ENG 088, MAT 022. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CSC 101 Computer Algorithms

This course introduces students to the logic used to develop solutions to common problems in the computer science field. These step-by-step detail solutions are called algorithms and serve as the basic methods utilized in most computer problems. In the lab component of this course these algorithms are written and tested in C++. Topics include number systems, logical operators, one and two-dimensional arrays and methods of sorting arrays, graphs of functions, and string manipulation. Prerequisites: CSC 100. 2 lecture and 3 laboratory hours per week. 3 credit hours.

CSC 102 Data Structures

An introduction to data representation and structures C++: strings, arrays, linked lists, queues, and stacks. The course extends the knowledge gained in CSC 101 to process information stored in the structures described above. Prerequisite: CSC 101 with a grade of "C" or better. 2 lecture and 2 laboratory hours per week. 3 credit hours.

▲ CSC 115 Introduction to Computer Programming

This course is an introduction to computers and programming. Topics include: components of the computer system, problem solving techniques, processing data, manipulating files, creating mathematical functions, controlling processes using the BASIC programming language. Prerequisite: MAT 022. 2 lecture and 2 laboratory hours per week. 3 credit hours.

CSC 222 Organization, Operation, and Assembly Language

The course is an introduction to the organization and operation of a computer system. The course will focus on machine representation of instructions and data through the study of a low level, machine-oriented assembly language. Topics include memory dumps, registers, and internal data representation. Prerequisite: CSC 102. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

▲ CSC 226 Introduction to Operating Systems

This lecture-based course introduces the concepts, structure, and mechanisms of operating systems. The course intends to provide a thorough discussion of the fundamentals of contemporary operating system design and relate these to current directions in the development of future operating systems. It surveys the technical topics of computer systems with emphasis on the relationships between hardware architectures, system software, and application software. Computing system topics include basic elements, processor register, instruction execution, interrupts, the memory hierarchy, cache memory, and Input/Output (I/O) communication techniques. General operating system topics include processes, threads, concurrency, memory management, scheduling, I/O management, disk scheduling, file management, distributed systems, and computer and network security. Prerequisite: CSC 102. 3 lecture hours per week. 3 credit hours.

CSC 285 Special Topics in Computer Programming

Topics of current interest and trends in computer programming are discussed in this seminar course. Course content is arranged to satisfy particular needs and interests of students. This course is intended for students who are completing their degree in Computer Science. Prerequisite: Permission of coordinator. 3 credits.

CSC 290 Co-op Education Experience

This course is an externship of approximately 200 hours in the departments of local business firms. An elective may be substituted. See Program Coordinator. Prerequisite: Completion of all third semester courses and a GPA of at least 2.0. 200 externship hours. 3 credit hours.

CSC 295 Independent Study

A special research or development project in computer science for the advanced student with individual needs. See program coordinator prior to registering. Prerequisite: GPA of at least 3.00 and must have completed a minimum of 48 credits. 3 credits.

DBI • Deaf-Blind Interpreting

DBI 201 Introduction to Deaf-Blindness and Deaf-Blind Community

This course presents an overview of the lives and perspectives of members of the Deaf-Blind community and their culture. It includes etiologies, the impact of deaf-blindness on the culture and psyche of Deaf-Blind persons and initial skills development in communication modifications for persons who are Deaf-Blind. It also covers the various roles and relationships of interpreters and support service providers within the Deaf-Blind community, advocacy for the Deaf-Blind community by sharing information, linking and relinking communities, and being supportive of political or social actions that enhance the lives of people who are Deaf-Blind. Basic level knowledge and experiential activities around meeting, socializing, and working with Deaf-Blind people in a variety of settings are provided. Prerequisites: Program admission requirements or approval of instructor. 3 lecture hours per week. 3 credit hours.

DBI 205 Communication Methods and Sighted Guide Techniques

This course covers various communication methods and techniques used among persons who are Deaf-Blind and training in sighted guide techniques for Support Service Providers (SSPs) and interpreters. The course incorporates visual examples of the methods through specially produced videotapes and activities that will optimize skill acquisition. Training in sighted guide techniques used with Deaf-Blind people will stress safety factors and mobility issues. Basic issues faced by interpreters and SSPs regarding logistics of group settings are also addressed. Prerequisite or Corequisite: DBI 201. 2 lecture hours and 1 laboratory hour per week. 2 credit hours.

DBI 210 Deaf-Blind Interpreting and Interpreting Strategies (On campus/ ANGEL for posting assignments)

Interpreter cover the various roles and responsibilities of interpreters who work with persons who are Deaf-Blind, ethics, and cross-cultural considerations. Interpreting Strategies focuses on linguistic modifications for tactual and restricted field interpreting and strategies for incorporating environmental aspects into the interpreting process. Specific linguistic modifications such as condensing and editing, utilizing pre- and post-assignment information, and transferring nonmanual grammatical signals into a tactual mode. The course also discusses resources, agencies, and effective provision of interpreter/SSP services for academic or community events where Deaf-Blind persons participate. Prerequisite: Approval of Coordinator of ASL-English Interpreting Program or EIPDC Coordinator, 3 hours per week. 3 credit hours.

DENA • Dental – UMDNJ

DENA 1232 Dental Science

A series of lectures designed to familiarize the students with the basic pharmacological agents utilized to provide anesthesia, promote healing and medicate patients. Information concerning the basic principles of oral pathology is presented. Consideration is given to the relationship between general pathology and oral diseases with emphasis on abnormal conditions or the oral cavity. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENA 1279 Clinical Assisting

The clinical dental assisting experience has been designed to incorporate pre-clinical laboratory skills, the use of dental materials, dental radiology, and expended functions, as delegated by the New Jersey State Dental Auxiliary Practice Act. Clinical rotations in all areas of dental practice have been scheduled at the New Jersey Dental School in order to gain practical experience with other students and patients under the supervision of allied dental personnel. 180 clinical hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENA 1309 Internship

The focus of this course is to provide an opportunity to integrate pre-clinical and clinical skills into the private practice setting. The students will actively participate in all aspects of dental assisting. Students will also obtain experiences in expanded functions as outlined by the New Jersey State Dental Auxiliary Practice Act. Additionally, students are required to make radiographic exposures as outlined by the Department of Environmental Protection. 120 clinical hours. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

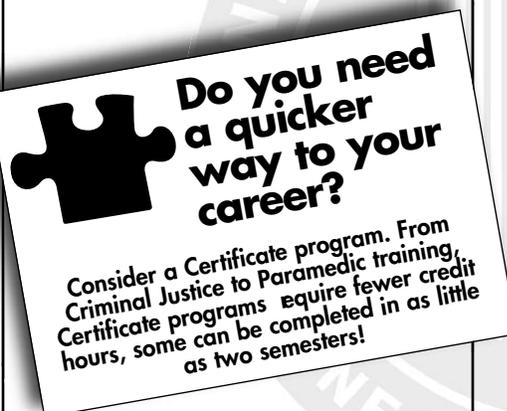
DENH • Dental – UMDNJ

DENH 1109 Introduction to Clinical Dental Hygiene

This course is an introduction to the basic knowledge, skills and judgments necessary for prevention of disease of the teeth and surrounding tissues. Instrumentation design, classification and usage are taught in both didactic and laboratory portions of the course. The student performs selected services on one of their peers or a laboratory manikin, but does not necessarily provide a full range of services. Learning methods will include lectures, self-instructional audio-visual, presentations, web research, and reading assignments. Students are assessed throughout the semester through competency evaluations. Laboratory and clinical experience provide the opportunity for practical application of the principles of comprehensive dental hygiene treatment in preparation for the following semester in treating patients. 4 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 1220 Nutrition

The purpose of this course is to provide the dental hygiene student with the knowledge to understand and skill to apply the principles of nutrition and diet evaluation and counseling relative to oral health in the dental setting. The course covers the fundamental principles of diet and nutrition as they relate to general and oral health: dietary guidelines, nutrient functions, requirements throughout the life span and deficiency/toxicity concerns, energy needs and nutrition and oral health in dental caries, periodontal disease, diabetes, heart disease, cancer and AIDS. There is an emphasis on the relationship among oral health and dental hygiene practice and patient management. Management of the patients at different stages of the life span will be covered. Clinical application will focus on diet and nutrition risk evaluation and counseling for prevention, caries control, oral disease and restorative work. Complementary medicine and diet therapy issues will also be addressed in relation to oral health. Nutrition misinformation and other consumer issues will also be addressed. The students will complete the midterm and final exam via the Internet through WEBCT. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>



DENH 1231 Clinical Dental Hygiene I

This course demonstrates advanced techniques of the dental hygiene appointment including, oral preventive therapy, fluorides, basics of treatment planning, behavior modification strategies, gerodontic and pediatric preventive counseling, women's health, and dental hygiene care for individuals with special needs including diabetes, cardiovascular and respiratory disease, and substance abuse. 45 lecture hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 1249 Clinical Services I

This didactic and clinical course provides students the opportunity to apply principles taught during the pre-clinical phase in a patient care environment. Topics will include adjunctive instrumentation and therapy, periodontal evaluation based on the American Academy of Periodontics, prevention of disease and maintenance of oral health, non surgical periodontal therapy, latex hypersensitivity and tobacco cessation. Evidence-based interventions in the dental hygiene process of care will be emphasized. Learning methods will include lectures, seminars, self-instructional audiovisual presentations, and reading assignments. Case studies and patient assessment will be emphasized for preparation for CS II and Board examinations. Students will be assessed through clinical competency exams through the course. 15 lecture hours, 180 clinical hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 1280 Oral Embryology and Histology

The course provides the dental hygiene student with a conceptual framework for understanding the growth and development of oral structures as well as an overview of the peri-natal events that begin their growth. Microscopic structures of the oral tissues, growth and development of the face and oral cavity will be studied to reinforce lecture topics. A detailed study of the development of the deciduous and permanent dentition is presented along with the common developmental disturbances and anomalies that sometimes occur during the complex pattern of growth and development. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2300 Oral Pathology

The students study abnormalities within the oral cavity and head and neck regions including any deviation from normal. The course covers cellular alterations relating to the inflammatory and immune responses as well as gross abnormalities related to inflammation, immunity, genetics, developmental disorders, infectious disease, neoplasia and systemic disease. The majority of classroom instruction is devoted to oral pathology with emphasis placed on those lesions most frequently encountered. For each lesion discussed, the etiology, pathogenesis, clinical and applicable diagnostic signs and symptoms, treatment, follow-up and prognosis are presented. Limited discussion is devoted to general pathology as it relates to oral lesions and manifestations. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2310 Dental Health Education/Community Dental Health

This course is a participation and study of the principles of delivering health care to the public. It examines dental public health, the role of the dental auxiliary in planning, delivering and evaluation of community dental health programs, dissemination of dental health information, and tools of public health including: epidemiology, biostatistics, dental indices, and reliability and validity of research methods. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2320 Pharmacology and Oral Medicine

This lecture course is designed to explore basic concepts of the anatomy and pathology of the periodontium. Classification, etiology, and treatment of periodontal disease will be discussed in depth using slides, videos, and CD-ROM. Correlation of the relationship of the histopathologic changes of the supporting structures of the teeth are integrated through the use of case based clinical situations. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2321 Periodontology I

This lecture course is designed to explore basic concepts of the anatomy and pathology of the periodontium. Classification, etiology, and treatment of periodontal disease will be discussed in depth using slides, videos, and CD-ROM. Correlation of the relationship of the histopathologic changes of the supporting structures of the teeth are integrated through the use of case based clinical situations. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2332 Clinical Dental Hygiene II

Classroom instruction in the care of special population groups including care for the pediatric, pregnant, geriatric, and handicapped or disabled patients. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2349 Clinical Services II

Students practice all phases of total preventive oral health service including oral examination, nutritional counseling, personalized patient education and fluoride treatments. 15 lecture hours, 180 clinical hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2410 Capstone Seminar

The Capstone Seminar is at the conclusion of a student's program of study and caps prior course work. The course will enable the student to synthesize what they have learned in the Dental Hygiene Major. The student will develop a grant proposal for an enrichment grant, critically review literature, and write an abstract for publication using the appropriate format required by peer reviewed journals. The student will analyze research studies, and apply biostatistics. Instruction on understanding the scientific method and evidence-based decision making skills is provided. Emphasis is placed on using the World Wide Web to access current literature and present this information in an educational manner to peers. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdnj.edu/>

DENH 2422 Periodontology II

This lecture course is a continuation of Periodontology I. Current information on clinical and adjunctive home care aids will be discussed. Surgical options and alternatives including implants will be studied. Students will exchange their experiences about their patient's treatment through a Case Presentation. Complete documentation including review of medical and dental histories, dental and periodontal charting, goals and objectives of therapy, before and after photographs, radiographs and/or study models, record of treatment, patient compliance, and recommended maintenance schedules will be shared, discussed, and evaluated. 30 lecture hours. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

DENH 2449 Clinical Services III

This course will refine the student's clinical skills and incorporate the base of knowledge in pathology and periodontology as it relates to the dental clinical setting. The student will develop more independent thinking and self-directive skills while continuing to demonstrate significant confidence, independence and efficiency necessary for a dental hygienist. Upon completion of the course, the fourth semester dental hygiene student will be prepared as a dental hygiene graduate by successful clinical testing in mock board, selected competency examinations, and reviewing graduation requirements. 15 lecture, 180 clinical hours. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

DENH 2453 Pain Control

The course is designed to introduce the student to the principles of local anesthesia in dentistry. Emphasis will be placed on clinical application of these principles. Anatomy of the head and neck will be stressed throughout the course with an in depth review of the trigeminal nerve and neurophysiology. The pharmacology of various local anesthetics and vasoconstrictors will be reviewed, as well as a rational approach to selection of local anesthetic. Discussion of systemic toxicity and local complications will alert the student to emergencies that can develop in the dental treatment area. Local anesthetic techniques will be discussed and injection techniques will be presented and practiced. Students will apply topical and administer local anesthetic to one another after practicing. Nitrous oxide sedation, general anesthesia, IV sedation and hypnosis will also be discussed. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

DENH 2459 Dental Specialties II

This course provides students with clinical rotations throughout the dental specialty areas offered by the New Jersey Dental School. The dental hygiene students will function as a New Jersey expanded duty dental assistant and become clinically proficient in all expanded duties listed in the New Jersey Dental Auxiliary Practice Act. 45 clinical hours. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

DMSM • Diagnostic Medical Sonography

DMSM 100 Introduction to Clinical Sonography

This course provides a historical, professional and occupational development of Diagnostic Medical Ultrasound. Case studies of the various Imaging Modalities and how to correlate these findings with ultrasound will be emphasized. The terminology used in Sonography and scanning demonstration labs are included. 2 lecture hours per week. 2 credit hours. Prerequisite: BIO 105, PHY 125 with lab or PHY 101 with lab, MAT 119, ENG 101

DMSM 101 Patient Care

The course includes a survey of general principles, techniques and procedures in patient care, ethics and medico-legal. The course introduces the student to practical components for the clinical setting. Demonstration lab and competency testing in Patient Care skills are included. 2 lecture hours per week. 2 credit hours.

DMSM 102 Cross-sectional Anatomy

This course provides basic sectional anatomy of the abdomen and pelvis, which allows the ultrasound student to develop sufficient comfort with cross-sectional images. Prerequisite: DMSM 101. 2 lecture hours per week. 2 credit hours.

DMSM 103 Ultrasound Physics and Instrumentation – Part I

This course provides the student with the knowledge of ultrasound physics and instrumentation with an emphasis on sound and its interaction with matter. Topics covered in this course include basic physical principles of ultrasound, Doppler principles and ultrasound equipment controls. Prerequisite: PHY 125 with lab or PHY 101 with lab. 3 lecture hours per week. 3 credit hours.

DMSM 104 Ultrasound Physics and Instrumentation – Part II

This course provides the ultrasound student with the knowledge of ultrasound physics and instrumentation with an emphasis on instrumentation. Topics include detailed ultrasound instrumentation, applied Doppler Effect with interpretation, imaging recording devices and quality control. Prerequisite: DMSM 103. 3 lecture hours per week. 3 credit hours.

DMSM 105 Ultrasound of the Abdomen – Part I

This course provides the foundation for human physiology and pathophysiology, relating these sciences to clinical diseases of the abdomen and the resultant pathological effects of the anatomy. Scanning demonstration labs are included. 3 lecture hours per week. 3 credit hours.

DMSM 106 Ultrasound of the Abdomen – Part II

This course further provides the foundation for human physiology and pathophysiology, relating these sciences to clinical diseases of the abdomen and the resultant pathological effects on the anatomy. Demonstration labs are included. Prerequisite: DMSM 105. 3 lecture hours per week. 3 credit hours.

DMSM 107 Ultrasound of the Female Pelvis

This course provides the ultrasound student with a basic knowledge of gynecology and its ultrasonographic applications. Normal and abnormal pathophysiology of the female pelvis is included. Prerequisite: DMSM 106. 3 lecture hours per week. 3 credit hours.

DMSM 109 Obstetrical Sonography – Part I

This course provides the ultrasound student with information necessary to perform sophisticated obstetrical procedures utilizing ultrasound. Examination strategies for various procedures are explored as well as the integration of ultrasound into established clinical practices. 3 lecture hours per week. 3 credit hours.

DMSM 111 Ultrasound of Superficial Structures I

This course provides the didactic and clinical knowledge necessary to perform basic sonographic examination of anatomy classified as superficial structures. Utilizing specialized equipment and high megahertz transducers, examination strategies for various procedures are discussed. The role of ultrasound in established clinical practices utilizing superficial structures imaging is discussed. Demonstration labs are included. 3 lecture hours per week. 3 credit hours.

DMSM 116 Ultrasound Registry Review

This course is comprehensive, covering all topics that appear on the current ARDMSM test content outline for General Abdomen Obstetrics and Gynecology and Physics and Instrumentation. 3 lecture hours per week. 3 credit hours.

DMSM 117 Obstetrical Sonography – Part II

This course provides the ultrasound student with information necessary to perform sophisticated obstetrical procedures utilizing ultrasound. Examination strategies for various procedures are explored as well as the integration of ultrasound into established clinical practices. Prerequisite: DMSM 109. 3 lecture hours per week. 3 credit hours.

DMSM 118 Ultrasound of Superficial Structures II

This course provides the didactic and clinical knowledge necessary to perform basic sonographic examination of anatomy classified as superficial structures. Utilizing specialized equipment and high megahertz transducers, examination strategies for various procedures are discussed. The role of ultrasound in established clinical practices utilizing superficial structures imaging is discussed. Prerequisite: DMSM 111. 3 lecture hours per week. 3 credit hours.

ECO • Economics

ECO 105 Basic Economics

A one-semester course, concentrating on macro- and micro-economic issues. Operations of a market economy using the fundamental principles of supply and demand, production costs and basic market models. National income and our monetary system. Interaction of monetary and fiscal policies to accomplish economic objectives. Students will be able to understand the overall functioning of our market and national economy. Prerequisites: ENG 087, MAT 011. 3 lecture hours per week. 3 credit hours.

▲ ECO 201 Principles of Economics I

An introduction to economic problems of GDP growth, full employment, price stability, and national debt and deficits. Topics include national income accounting, aggregate economic sectors, money and banking, income determination and fiscal and monetary policies. Students will be able to evaluate and measure the nation's economic health in relation to unemployment, inflation, and other macroeconomic indicators. Prerequisites: ENG 089, ENG 099, MAT 022, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ ECO 202 Principles of Economics II

An introduction to the theory of a firm (a micro unit). Analysis of a firm under fundamental principles of supply and demand and consumer behavior. Cost analysis and profit maximization under various market models. The pricing of resources and contemporary issues. Students will be able to analyze the behavior of a firm as well as price determination. Prerequisites: ENG 089, ENG 099, MAT 022, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

ECO 205 Money and Banking

Study of the evolution and functions of money: monetary standards, credit and development of banking. The course examines banking and credit institutions, theory and practice of bank operations, the Federal Reserve System, foreign exchange, and recent banking developments. Prerequisites: ENG 089, ENG 099, MAT 022, ECO 201 or ECO 202, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

ECO 207 Urban Economics

An introduction to the basic principles of urban and regional economics with applications to current metropolitan problems. Emphasis is on the determination of a viable economic base that allows maximum employment, the provision of adequate public services, the impact of federal and state policies on urban transportation and income distribution, fiscal conditions, and the supply of housing. Prerequisites: ENG 089, ENG 099, MAT 022. Corequisite: ECO 201 or ECO 202, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

ECO 209 The International Economy

An introduction to international trade theory and policy. An historical examination of the emergence of trade and of the basis and gains from trade. Balance of payment equilibrium and U.S. trade deficit. Tariff and other trade barriers, foreign exchange markets, capital flows, and multinational corporations. Special topics include WTO, EU and NAFTA. Students will obtain the analytical skills and vocabulary needed in international trade, commercial, and financial institutions. Prerequisites: ENG 089, ENG 099, MAT 022. Corequisite: ECO 201, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

EDU • Education

EDU 205 Educational Psychology

Psychology applied to teaching and learning processes. The course helps students apply understanding and methods of psychology to problems in teaching/learning situations. Prerequisites: ENG 101 or ENG 112. 3 lecture hours per week. 3 credit hours.

EDU 215 Field Work in Education

This course provides the opportunity for students to acquire an understanding of effective teaching skills. Students are required to attend regular classes on campus and to observe a minimum of thirty hours of classroom instruction in an approved educational institution. Students must be matriculated in either Liberal Arts Education or Liberal Arts Early Childhood. Students must complete an application form with the Coordinator of Education Programs prior to course registration. 3 credit hours. Prerequisite: EDU 205 or permission from the program coordinator.

EET • Electronics/ Electromechanical Technology

EET 101 Principles of DC Circuits

Analysis of passive DC networks using standard network theorems such as superposition, mesh and nodal analysis, Thevenin, current and voltage source conversions. Laboratory emphasizes the use and understanding of basic instrumentation and measurement techniques. Prerequisite: ENG 088. Corequisite: MAT 143 or MAT 119. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 102 Principles of AC Circuits

Continuation of EET 101, including analysis of passive devices in AC networks, resonance and characteristics of transformers. Laboratory introduces measurement techniques utilizing signal generators, oscilloscopes and frequency counters. Prerequisite: EET 101. 2 lecture and 3 laboratory hours per week. 3 credit hours.

EET 111 Digital Computer Fundamentals

A study of the fundamentals of digital computers including number systems, Boolean algebra, Karnaugh maps, logic functions, logic gates, and the implementation of logic functions using discrete and integrated circuit components. Combinations of fundamental circuits are developed to form counters, registers, encoders, decoders, multiplexers, demultiplexers, arithmetic, and memory units. In the laboratory the student is introduced to breadboarding, analysis, synthesis, testing and troubleshooting of digital circuits through the use of digital test instruments such as pulse generators, oscilloscopes, and logic probes. Prerequisite: ENG 088. Corequisite: MAT 143 or MAT 119. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 204 Electromechanical Devices and Systems/Robotics

The analysis, synthesis, and integration of systems encompassing electromechanical, electronic, electrical, and mechanical subsystems. Actuators, motors, generators, sensors, transducers, tachometers, amplifiers, signal conditioners, and displays are studied. Analog, digital, and hybrid (analog/digital) control systems, instrumentation and measurement techniques are also studied. Further study of the integration of automatic control systems and computers involve programmable controllers, robotics, and automated manufacturing systems. In the laboratory the student performs experiments on these systems and subsystems with emphasis on diagnostic testing, interfacing, measurement, troubleshooting, calibration, programming, and servicing techniques. Prerequisites: EET 211 and EET 213. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 211 Computer Systems/Microprocessors

A continuation of EET 111. A study of digital computer sub-assemblies such as the central processing unit (CPU), data registers, data bus configurations, address registers, and various peripherals. Hardware, software, and firmware aspects of computer systems are studied with emphasis on microprocessor architecture and machine language programming. In the laboratory the student is required to build and troubleshoot complex control circuits and to program and interface a microprocessor with various input/output (I/O) devices and peripherals. Prerequisite: EET 111. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 213 Semiconductor Devices and Circuits

The study of solid state devices such as diodes, bipolar junction transistors, field effect transistors, unijunction transistors, silicon controlled rectifiers, and other four-layer devices and their application in basic circuits. Multistage amplifiers, differential amplifiers, operational amplifiers, rectifiers, regulators, and control circuits are also studied. In the laboratory the student is required to analyze, synthesize, test, troubleshoot and evaluate circuits and devices, and become proficient in the use of test equipment and development of measurement techniques. Prerequisite: EET 102. 4 lecture and 3 laboratory hours per week. 5 credit hours.

EET 265 Fiber Optic Communication Systems

Principles and techniques associated with the transmission of digital and analog signals through optical waveguides (fibers). Topics will include: properties of optical fibers and waveguides, components and basic circuits of optical communication systems, baseband and pulse modulation, quantization, digital signaling techniques, multiplexing and coherent optical communications. The laboratory component will provide hands-on experience in the handling of fibers, splicing and connecting, measurement of fiber properties, the building and testing of a fiber optic communication system. Prerequisites: EET 213. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 285 Special Topics in Electromechanical Technology

The study of topics of current interest in electromechanical technology. The course content is arranged to satisfy the particular needs and interest of the students. Prerequisite: Permission from EEET Coordinator. Credit by arrangement.

EET 290 Co-op Education Experience

An externship at the facilities of an appropriate firm, with or without compensation, arranged with program coordinator's approval. 3 credit hours.

EET 295 Independent Study

A special research and/or development project in electromechanical technology for the advanced student with individual needs. Prerequisite: Permission from EEET Coordinator. Credit by arrangement.

EGG • Engineering

EGG 105 Introduction to Fundamentals of Engineering

Introduction to engineering methods through the study of numerous problems. Orderly analyses and accurate computation are stressed. In addition, the course provides the student with a preliminary insight into the field of engineering and an acquaintance with various aspects of college encountered by engineering students. Prerequisites: MAT 144, ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

EGG 107 Understanding Sustainability & Green Technologies

This course offers a study of the fundamentals of Sustainability and Green Technologies. Topics covered will include the history of environmentalism to the present; the interaction between humans and the environment, Triple Bottom Line, namely, economic prosperity, environmental quality and social equity, and how these aspects relate; green jobs in the present and future economy; environmental laws and regulations, from the local arena to the federal and global arenas. The economics of sustainability will be addressed. Focus is directed towards fundamental concepts rather than in-depth technical and scientific analysis in order to provide an overview of a broad subject. Prerequisites: ENG 089, ENG 099, MAT 022, or permission of the Department Chair. 3 lecture hours per week. 3 credit hours.

EGG 108 Engineering Drawings

A study of the major elements of the engineering drawing. Topics include multiview (2-dimensional), sections and pictorial views, dimensioning practices, ANSI standard Limits and Fits, surface finishes and fasteners. Geometric dimensioning and tolerances (GD&T) are covered with attention to tolerances of form, orientation, location, runout, and position. Also included are applications of symbols, datums, material condition modifiers, bonus tolerances and virtual conditions. Lab topics include drawing entities, display control, editing techniques, layers and linetypes, hatching, dimensioning, and scaling. Project drawings such as detailed machine parts will require application of model and paper space, templates, viewports and external references. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

EGG 111 Engineering & Computer Graphics

This course is a fundamental study of the engineering drawing using computer-aided engineering software (Autodesk Inventor) to construct solid and parametric modeling drawings. Topics covered include 3-D solid modeling, 2-D multi-view drawings, parametric dimensioning, section views, auxiliary views, and assembly modeling. CAD projects include 3-D solid model drawings and 2-D orthographic drawings, which address topics such as geometric constraints, feature interactions, parametric dimensions, and associative functionality. 1 lecture hour and 3 laboratory hours per week. 2 credit hours.

EGG 201 Engineering Mechanics (Statics)

A study of basic structural and mechanical systems in static equilibrium. Free-body diagrams, vector algebra, and scalar analysis are used to find resultants of forces and moments, and for solving equilibrium problems; applications including simple structures and machines, dry friction, center of gravity, centroids, area and mass moments of inertia by integration. Prerequisites: MAT 171, PHY 111. 3 lecture hours per week. 3 credit hours.

EGG 202 Engineering Mechanics (Dynamics)

A study of the kinematics and kinetics of motion, including rectilinear and curvilinear motion, force and acceleration, work and energy, impulse and momentum, for particles and rigid bodies. Calculus is used throughout for problem solving. Prerequisites: MAT 172 and EGG 201. 3 lecture hours per week. 3 credit hours.

EGG 203 Applications of Computers in Science and Engineering

This course emphasizes hands-on experience with stand-alone microcomputers. Simulations, data analysis, graphics techniques, and structured programming are used to show the range of computer problem-solving techniques. Other topics covered are program correctness, operating systems, a survey of computer languages, the relationship of the components internal and external to the computer. 2 lecture and 3 laboratory hours per week. 3 credit hours.

EGG 205 Surveying

Theory and practice of measurements and their applications. Topics include use of instruments, recording of data, computations and mapping; theory and use of simple curves; earthwork measurements and computation. 2 lecture and 3 field laboratory hours per week. 3 credit hours.

EGG 207 Principles of Electrical Engineering

Introduction to the fundamental concepts of electric circuits. Course covers mesh and nodal analysis, network theorems and applications, steady state analysis, and phasor diagrams. Introduction includes time-varying analysis R-L, R-C, and R-L-C circuits. Prerequisite: PHY 201. Corequisite: MAT 272. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EGG 213 3-D AutoCAD

Through the user coordinate system (UCS) and viewports the student will learn to create 3-D wire frame drawings clad with 3-D faces and meshes in order to create realistic images via hidden line removal and perspective view. 3-D solid geometry techniques will be emphasized to increase drawing efficiency. Shade and Animator will be illustrated. Prerequisite: MET 109 or permission of instructor. 2 lecture hours and 2 laboratory hours per week. 3 credit hours.

EGG 251 Digital Design

A study of the fundamentals of digital computers including number state machines systems, Boolean algebra, Karnaugh maps, logic functions, logic gates, and the implementation of logic functions using discrete and integrated circuit components. Combinations of fundamental circuits are developed to form counters, registers, encoders, decoders, multiplexers, demultiplexers, arithmetic, and memory units. 3 lecture hours per week. 3 credit hours.

EIP • Educational Interpreting

EIP 201 Methods of Instruction for Educational Interpreters – Online

This course is designed to provide educational interpreting students with a basic knowledge curriculum development, based upon student motivation and learning theories will be addressed as they relate to primary and secondary age students. Students will review the New Jersey Core Curriculum Content Standards, (CCCS), as well as unique curricula designed for students who are deaf/hard of hearing in the content areas. Instructional strategies for educational interpreters with an emphasis on vocabulary acquisition and language comprehension for students will be addressed. Collaborative strategies for educational interpreters working with regular education and special education teachers and related services personnel in a variety of educational settings are discussed as well as assessment of academic materials and successful completion of learning objectives according to established criteria in the students' individualized education programs (IEP) will be presented. Prerequisite: Approval of Coordinator of ASL-English Interpreting Program or EIPDC Coordinator. 3 lecture hours. 3 credit hours.

EIP 202 Language Development for the Educational Interpreter – Online

This course is designed to provide educational interpreting students with an understanding of the principles and theories of childhood language development and will compare the development of language for children with various degrees of hearing loss with language development of children without educational disabilities. Students will survey language intervention models for students who are deaf and hard of hearing. Additional issues impacting language development in children with hearing loss, including, but not limited to, alternative forms of communication, bilingual/bicultural issues, assistive technology, and cochlear implants. Prerequisite: Approval of Coordinator of ASL-English Interpreting Program or EIPDC Coordinator. 3 lecture hours. 3 credit hours.

EIP 203 Child Development for Educational Interpreters – Online

This course is designed to provide educational Sign Language/English interpreting students with an overview and an understanding of the development of children from conception to adolescence, the interaction of physical, cognitive, emotional, linguistic, social and cultural factors within developmental stages and in addition, the students will have an understanding of the deaf and hard of hearing child from a developmental perspective. Students will compare the development of children without specialized needs with the development and issues facing children and families with specialized needs. Prerequisite: Approval of Coordinator of ASL-English Interpreting Program or EIPDC Coordinator. 3 lecture hours. 3 credit hours.

EIP 204 Ethics and Laws for Educational Interpreters – Online

This course is designed to provide students with an overview and understanding of the unique role and responsibilities of educational interpreters and the various interpreter assignments within multiple educational settings; Collaboration and consultation models as the framework for the educational interpreters role with regular education teachers, special education teachers, school administration and parents; The role of educational interpreters as a member of the individualized education program (IEP) team; Issues related to etiquette, confidentiality, supervision and evaluation; and finally, federal and state mandates which outline the provisions of educational interpreting as a related service. Prerequisite: Approval of Coordinator of ASL-English Interpreting Program or EIPDC Coordinator. 3 lecture hours. 3 credit hours.

EIP 207 Disability Laws for Educational Interpreters – Online

This course is designed to provide students with an overview and understanding of the federal and state mandates which outline the provisions of educational interpreting as a related service. Prerequisite: HUD 110 Role and Ethics, Approval of Coordinator of ASL-English Interpreting Program or EIPDC Coordinator. 3 lecture hours in a 5-week session. 1 credit hour.



These are credits for developmental courses that provide the skills and confidence to succeed in college-level courses. Developmental courses are numbered 099 and below, they do not meet graduation requirements and will not transfer to four-year colleges.

EMT • Emergency Medical Technician

EMT 100 Cardiopulmonary Resuscitation

This program meets the requirements of the American Heart Association's Basic Life Support for Healthcare Providers, and the American Red Cross' CPR for the Professional Rescuer. This program is designed to teach techniques for basic airway assessment and management, cardiopulmonary resuscitation, and management of foreign-body airway obstruction for adults, children, and infants. The student will also be introduced to the automated external defibrillator (AED), and will become proficient in its use. An American Heart Association or American Red Cross-certified instructor will teach this program. A course completion card will also be issued by the appropriate certifying agency. 1 lecture hour per week and is generally taught in (3) five hour sessions. 1 credit hour.

EMT 102 Emergency Medical Training

This course meets the requirements of the National Highway and Transportation Safety Administration's Emergency Medical Technician National Educational Standards. The course is designed to instruct a student to the level of Emergency Medical Technician. The EMT serves as a vital link in the chain of the healthcare team. The student will learn all skills necessary to provide emergency medical care at a basic life support (BLS) level with an ambulance or other specialized service.

Upon successful completion of this course, the student will be eligible to take the state certification exam, which is required to obtain an EMT provider card issued by the NJ Department of Health and Senior Services - OEMS. Prerequisite: EMT 100 or proof of current CPR/AED certification at the healthcare/professional level by the American Heart Association, American Red Cross, ASHI, or National Safety Council. 8 lecture hours and 6 clinical skill hours per week. 6 credit hours.

ENG • English

ENG 087 Introduction to Language Arts

Introduction to Language Arts is a preparatory Basic Studies Program course designed to create a context for developmental reading and writing. The primary objectives of the course are to develop in the students the ability to manage time relevant to the requirements of ENG 088 and ENG 098, to assimilate diverse educational materials centered on a theme, and to assist in the expression of their ideas, both written and oral. 6 lecture hours per week. 6 institutional credit hours.

ENG 088 Introduction to College Reading I

Part of a multi-semester sequence designed to help the student whose reading ability indicates the need for concentrated involvement in the reading process, particularly to improve comprehension, critical reading and vocabulary. Prerequisite: ENG 087, if needed. 4 lecture hours per week. 4 institutional credit hours.

ENG 089 Introduction to College Reading II

Highest level of a multi-semester sequence providing intensive involvement in the reading process. Prerequisite: ENG 088, if needed. 4 lecture hours per week. 4 institutional credit hours.

ENG 098 Introduction to College Writing I

Part of a multi-semester sequence designed to help the student whose writing indicates the need for concentrated attention and practice with the process of language use. Particular attention is given to producing compositions that have sufficient information. Prerequisite: ENG 087, if needed. 4 lecture hours per week. 4 institutional credit hours.

ENG 099 Introduction to College Writing II

Highest level of a multi-semester sequence providing intensive involvement in the writing process. Prerequisite: ENG 098, if needed. 4 lecture hours per week. 4 institutional credit hours.

▲ ENG 101 English Composition I

First half of a two-semester sequence, completed by either ENG 102 or ENG 122 as required by program of study, which focuses on the development of the student's skill in writing expository prose. Prerequisite: ENG 099, if needed. 3 lecture hours and one conference hour per week. 3 credit hours.

▲ ENGH 101 English Composition I (Honors)

First half of a two-semester sequence, completed by either ENG 102 or ENG 122 as required by program of study, which focuses on the development of the student's skill in writing expository prose. Consistent with the philosophy of Honors Studies, this course is conducted in a seminar format, and students are encouraged to work with other students and to direct their own learning by selecting from a variety of opportunities that will be made available to them. Prerequisites: ENG 099, if required, and permission of instructor or coordinator of Honors Studies. 3 lecture hours and 1 conference hour per week. 3 credit hours.

▲ ENG 102 English Composition II

Second half of a two-semester sequence, which focuses on the continued development of the student's skill in writing expository prose as well as an introduction to literature. Prerequisites: ENG 089, if needed, ENG 101 or ENG 112. 3 lecture hours and 1 conference hour per week. 3 credit hours.

▲ ENGH 102 English Composition II (Honors)

This is the second half of a two-semester sequence, which focuses on the continued development of the student's skill in writing expository prose as well as an introduction to literature. Consistent with the philosophy of Honors Studies, this course is conducted in a seminar format, and students are encouraged to work with other students and to direct their own learning by selecting from a variety of opportunities that will be made available to them. Prerequisites: ENG 089, if required, ENG 101 or ENG 112, and permission of instructor or coordinator of Honors Studies. 3 lecture hours and 1 conference hour per week. 3 credit hours.

ENG 111 English Composition for Speakers of Other Languages I

This course is the first semester of a two-semester sequence of college composition for students whose first language is not English. The sequence serves in lieu of the foreign language requirement and as a substitute for ENG 101 for non-native speakers of English. Prerequisite: ESL 065 or ESL 062, and ESL 092 or ESL 096 or ESL Placement Test. 3 lecture hours and 1 conference hour per week. 3 credit hours.

▲ ENG 112 English Composition for Speakers of Other Languages II

This course is the second semester of a two-semester sequence of college composition for students whose first language is not English. The sequence serves in lieu of the foreign language requirement and as a substitute for ENG 101 for non-native speakers of English. Prerequisite: ENG 111 and ESL 082 or ESL 086. 3 lecture hours and 1 conference hour per week. 3 credit hours.

▲ ENG 122 Introductory Technical and Business Writing

Second half of a two-semester sequence, with focus on the types of writing used in business and industry, including process analysis, mechanism descriptions, summaries, proposals, research projects, letters, memorandums and resumes. Prerequisites: ENG 089, if needed, ENG 101. 3 lecture hours and 1 conference hour per week. 3 credit hours.

▲ ENG 128 The Dynamics of Communication

The study of human relationships with emphasis on communication as a process. Topics covered will include self-concept, perception, listening, language, assertiveness, and conflict resolution and their roles in human relationships. Communication concepts will be supplemented by classroom exercises. 3 lecture hours per week. 3 credit hours.

▲ ENG 129 Public Speaking

Instruction and practice in oral communication. Course includes training in impromptu and extemporaneous speaking, logical organization of material, methods of proof, persuasion, audience analysis, techniques of delivery, and fundamentals of group discussion and debate. 3 lecture hours per week. 3 credit hours.

ENG 201 Literature of the Western World I

A survey of the major periods in the development of Western literature from ancient Greece and Rome through the Medieval era, with an emphasis on the major figures such as: Homer, Sophocles, Plato, Virgil, Paul, Augustine, Dante, and Chaucer. The place of literature in the social and political history of the West will also be explored. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

ENG 202 Literature of the Western World II

A survey of the major periods in the development of Western literature from the Renaissance to the postmodern with an emphasis on the major figures such as Machiavelli, Shakespeare, Voltaire, Goethe, Tolstoy, Kafka, Eliot, and Borges. The place of literature in the social and political history of the West will also be explored. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 205 British Literature I

Study of the major British poets and prose writers from Beowulf to Pope and Swift, studied in their historical context and in their aspects of enduring merit. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 206 British Literature II

Study of the major British poets and prose writers from the pre-Romantic poets to the present, studied in their historical context and in their aspects of enduring merit. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 207 American Literature I

A survey of major works in American Literature from Colonial diarists to Whitman. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 208 American Literature II

A survey of major works in American Literature from Dickinson to the present. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 209 World Literature I

A comparative study of the foundational texts of world literature from antiquity to 1650. Representative works from Europe, East and South Asia, the Middle East, Africa, and Latin America will be read. Examples of readings include selections from the Bible, Homer's *Odyssey*, the *Ramayana*, the *Qur'an*, and *Sundiata*. Through such texts, this course will expose students to a diverse range of cultures and their founding mythological and religious beliefs. Emphasis will be placed on understanding each work in its broader social and historical context and how these works, in turn, serve as common points of reference for the development of the cultures, literary traditions, and belief systems to which they give rise. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 210 World Literature II

A study of major works of modern world literature from 1650 to the present. Through a comparative approach to representative works by European, East and South Asian, Middle Eastern, African, and Latin American writers, this course will expose students to a diverse range of cultures and literary practices. Emphasis will be placed on the social and historical context which informs the production and reception of these works. The relationship between that context and such major literary and cultural movements as Romanticism, Realism, Modernism, Postmodernism, and Postcolonialism will be examined as the basis for comparative study of these works. Major authors may include Rousseau, Tolstoy, Kafka, Pirandello, Lu, Neruda, Sembene, al-Saadawi, and Rushdie. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

ENG 215 Creative Writing

An introduction to the various forms of creative writing with emphasis on the development of superior craftsmanship in imaginative writing. Assignments are given to encourage students who have demonstrated advanced skills in writing to experiment with various forms. (Note: This course does not fulfill the 200-level literature requirement.) Prerequisite: ENG 102 or ENG 122 or instructor's permission. 3 lecture hours per week. 3 credit hours.

▲ ENG 216 Contemporary Literature

A study of writers from 1945 to the present, presenting major literary movements and their philosophical implications. Emphasis is on those novelists, playwrights, and poets who represent the contemporary trends in form, content, and style. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 217 Literature and the Arts I

A period study of literature using the fine arts to reveal the artistic environment of each era. The fine arts, films, and other creative media are used to show how artists working in their various disciplines have handled the same themes as those which are read, from Ancient Greece to Impressionism. Prerequisites: ENG 102 or ENG 122, HIS 101-102 or permission of instructor. 3 lecture hours per week. 3 credit hours.

▲ ENG 218 Literature and the Arts II

A period study of literature using the fine arts to reveal the artistic environment of each era. The fine arts, films, and other creative media are used to show how artists working in their various disciplines have handled the same themes as those which are read, from Impressionism to the present. Prerequisite: ENG 102 or ENG 122, HIS 101-102 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

▲ ENG 220 Drama As Literature

A study of techniques, thematic approaches, and critical analyses of dramatic literature. Students read to critically analyze plays and attend actual performances. Additional activities may include student line readings, character portrayals, and participation in a performance. Prerequisite: ENG 102 or ENG 122. See also FIA 205-206, Introduction to Drama. 3 lecture hours per week. 3 credit hours.

▲ ENG 227 African American Literature I

A survey of selected writings by African Americans emphasizing the literary significance of each work and author, studied in its historical and sociological contexts from slave narratives and early folk tradition to the beginnings of the Harlem Renaissance of the 1920's. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 228 African American Literature II

A survey of the selected writings by African Americans emphasizing the literary significance of each work and author, studied in its historical and sociological contexts from the Harlem Renaissance of the 1920s to the resurgent cultural self-consciousness of the 1960s to the present proliferation of African American literature. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

ENG 229 Introduction to Poetry

An introductory study of the major poets and genres of poetry in English, beginning with early ballads and songs, visiting each of the major periods and styles, featuring in-depth views of major figures in the development of poetry (Shakespeare, Blake, Whitman, etc.) and concluding with a study of representative 20th Century voices. Technical aspects of poetry will be discussed, as well as the cultural context and enduring nature of poetic expression. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

ENG 230 American Poetry

An introductory study of the major poets and genres of American poetry, beginning with Colonial and Federal era poets, visiting each of the major periods and styles, featuring in-depth views of major figures in the development of American poetry (Whitman, Dickinson, Williams, Eliot, Ginsburg, etc.) and concluding with a study of representative 20th and early 21st Century voices. Technical aspects of poetry will be discussed, as well as the cultural context and enduring nature of poetic expression within a specifically American idiom. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 235 Introduction to Shakespeare

An introductory study of Shakespeare as poet and dramatist, with close reading of the representative plays. The enduring nature of Shakespeare's ideas is stressed. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 245 Women in Literature

A comprehensive study of major characters in Western culture and literature from ancient times to the modern period. The main emphasis is on examination of the changing role of and presence of women through the ages as reflected in various genres of literature, including drama, poetry, and fiction. Prerequisites: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

▲ ENG 247 Women Authors

A study of major female authors, emphasizing the historical and literary development of female literacy and authorship in British and American poetry (but not limited to the English-speaking world), drama, fiction, and non-fiction. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

ENG 279 Survey of Yiddish Literature

A survey of Yiddish literature in English translation from Yiddish medieval romance through the "Classical" period (including Sholem Aleichem, I.L. Peretz and Mendele Mocher Sefarim) to the writers of the modern era. The literature will be studied in relation to the social background of each period. An analysis of the origin and development of the Yiddish language will also be included. Prerequisites: ENG 102 or ENG 122 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

ENG 270-289 Themes in Literature

A study of the way one theme (or several related themes) finds embodiment in literature and of the way it influences literary form and structure. Works chosen for reading and discussion express intense concern for a theme such as the adolescent, violence, the hero, the artist as pariah, death, war, or the absurd. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

ESL • English as a Second Language

ESL 012, 013, 014, 015 (Beginning)

Students learn basic English vocabulary and sentence structure. Simple conversation is developed. Beginning reading and writing skills are introduced. Prerequisite: ESL Placement Test. 3 lecture hours per week each. 3 institutional credit hours each.

ESL 022, 023, 024, 025 (High Beginning)

Students learn high beginning English vocabulary and sentence structure. Conversation, listening, basic reading and writing skills are further developed. Prerequisite: ESL Placement Test or successful completion of ESL 015. 3 lecture hours per week each. 3 institutional credit hours each.

ESL 032, 033, 034, 035 (Low Intermediate)

These courses develop low intermediate vocabulary, conversation, listening, and sentence structure. Intermediate reading and writing skills are developed. Prerequisite: ESL Placement Test, successful completion of ESL 025, or by the instructor's recommendation. 3 lecture hours per week each. 3 institutional credit hours each.

ESL 042, 043, 044, 045 (Intermediate)

These courses further develop intermediate vocabulary, conversation, listening, and sentence structure. Intermediate reading and writing skills are emphasized. Prerequisite: ESL Placement Test, successful completion of ESL 035, or by the instructor's recommendation. 3 lecture hours per week each. 3 institutional credit hours each.

ESL 046 Biographies of the 20th Century

This course is part of the fourth level of instruction for students who have graduated from a U.S. high school and who have been designated for special assistance with reading, writing and academic English. The course content focuses on personalities of the 20th century who have made significant contributions in a variety of fields. Prerequisites: ESL 035 or placement into an ESL level four section designated for U.S. high school graduates. Corequisites: Project Succeed sections of ESL 042, ESL 043, ESL 044, ESL 045 (Project Succeed is a special section of ESL level four reserved for U.S. high school graduates who place into intermediate ESL.) 3 lecture hours per week. 3 institutional credit hours.

ESL 051/052 – High Intermediate English in Allied Health for ESL

These courses are part of the fifth level of ESL Instruction. They are designed for students whose native language is not English and who plan to major in Allied Health programs. ESL 051/052 serves as a support course for ESL reading (ESL 085) and writing (ESL 095) classes and BIO 005. It includes instruction in (a) high intermediate level structure skills and (b) high intermediate level listening and note-taking (c) study skill topics based on Anatomy and Physiology/Allied Health contexts. The goal is to give English Language preparation to succeed at the college level and Allied Health programs. Prerequisite: ESL 045 or ESL Placement Test. Co-requisites: ESL 085, ESL 095 and BIO 005. 3 lecture hours per week each. 3 institutional credit hours each.

THE INSTITUTE FOR INTENSIVE ENGLISH

Non-native students whose tests indicate insufficient fluency in English are required to take courses for Speakers of Other Languages, offered in the Institute for Intensive English or ENG 111-112.

PROGRAM OF STUDY IN THE INSTITUTE FOR INTENSIVE ENGLISH

After an oral interview and a written examination to determine language proficiency, a student enters one of six sequential levels. During the final week of each semester, the student's ability is again measured. A student either advances to the next level or repeats the course if additional study is needed. Upon satisfactory completion of the sixth level, a certificate is awarded.

ESL 054, 055 High Intermediate English for the Non-Native Speaker

These courses are part of the fifth level of ESL instruction. They cover (a) high intermediate level structure skills and (b) high intermediate level conversation and listening practice based on academic contexts and on study skills topics. The goal is to give students English language preparation to succeed at the college level and comprehensive introduction to the American college. Prerequisite: ESL 045 or ESL Placement Test. 3 lecture hours per week each. 3 institutional credit hours each.

ESL 061/062 Advanced English in Allied Health for ESL

These courses are part of the sixth level of ESL instruction and are designed for students whose native language is not English and who plan to major in Allied Health programs. ESL 061/062 serves as a support course for ESL reading (ESL 086) and writing (ESL 096) classes and BIO 006. It includes instruction in (a) advanced level structure skills and (b) advanced level listening and note-taking (c) study skill topics based on Anatomy and Physiology and Allied Health contexts. The goal is to give English Language preparation to succeed at the college level and in Allied Health programs. Prerequisite: ESL 054/055 or 051/052 or ESL Placement Test. Co-requisites: ESL 086, ESL 096 and BIO 006. 3 lecture hours per week each. 3 institutional credit hours each.

ESL 064, 065 Advanced English for the Non-Native Speaker

These courses are part of the sixth level of instruction. They cover (a) advanced level structure skills with emphasis on the systems of the English language and (b) advanced level conversation and listening practice based on academic contexts and on study skills topics. The goals are to help students enhance their language proficiency in order to succeed at the college level. Prerequisite: ESL 055 or ESL 052 or ESL Placement Test. 3 lecture hours per week each. 3 institutional credit hours each.

ESL 071 Advanced Conversation and Culture

This course reinforces and expands English communication skills in a conversational cultural setting. It meets the individual needs of advanced students of English as a Second Language. Prerequisite: ESL 045 or ESL Placement Test. 3 lecture hours per week. 3 institutional credit hours.

ESL 080 American English Pronunciation for ESL Speaker

This course provides instruction in the pronunciation of the unique aspects of spoken American English. The goal is increased oral/aural intelligibility and fluency. Prerequisite: ESL 025 or ESL Placement Test. 3 lecture hours per week. 3 institutional credit hours.

ESL 081 Reading I

This course is part of the fifth level of instruction. The purpose of the course is to acquaint students with American narrative and expository texts and to assist students in their written interaction with these texts. Prerequisite: ESL 045 or ESL Placement Test. Corequisites: ESL 054, ESL 055. 3 lecture hours per week. 3 institutional credit hours.

ESL 082 Reading II

This course is part of the sixth level of instruction. The course focuses on reading comprehension and fluency for academic purposes. Students read and respond to narrative and expository texts from multicultural sources. Prerequisite: ESL 081 or ESL 085 or ESL Placement Test. Corequisites: ESL 064, ESL 065. 3 lecture hours per week. 3 institutional credit hours.

ESL 083 Advanced Reading in Business for ESL

This course is paired with and serves as a support course for ESL level six students enrolled in a sheltered section of Business 101. The purposes of the course are (1) to give students practice in reading and responding to academic texts in the area of business as presented in expository texts and (2) to help students develop reading skills and strategies they can apply in other academic work. Prerequisite: ESL 081 or ESL 085 or ESL Placement Test. Corequisites: BUS 101, ESL 064, ESL 065. 3 lecture hours per week. 3 institutional credit hours.

ESL 084 Advanced Reading in Psychology for ESL

This course is paired with and serves as a support course for ESL level six students enrolled in a sheltered section of Psychology 101. The purposes of the course are (1) to give students practice in responding to expository texts, fiction and articles in the area of psychology and (2) to help students develop reading skills and strategies they can apply in other academic work. Prerequisite: ESL 081 or ESL 085 or ESL Placement Test. Corequisites: PSY 101, ESL 064, ESL 065. 3 lecture hours per week. 3 institutional credit hours.

ESL 085 Reading I in Allied Health for ESL

ESL 085 is a Level 5 high-intermediate reading course that is designed for students whose native language is not English and who plan to major in Allied Health careers. This course is grouped together with a specific sequence of ESL courses and a Biology course (ESL 051/052, ESL 095 and BIO 005) which focus on improving English language skills in the context of Anatomy and Physiology/Allied Health. The purpose of this course is to develop reading skills and strategies for comprehending and responding to academic texts. Prerequisites: ESL Placement Test or ESL 045. Co-requisites: ESL 051/052, ESL 095, BIO 005. 3 lecture hours per week. 3 institutional credit hours.

ESL 086 Reading II in Allied Health for ESL

ESL 086 is a Level 6 advanced reading course that is designed for students whose native language is not English and who plan to major in Allied Health careers. This course is grouped together with a specific sequence of ESL courses and a Biology course (ESL 061/062, ESL 096 and BIO 006) which focus on improving English language skills in the context of Anatomy and Physiology/Allied Health. The purpose of this course is to apply advanced reading skills and strategies for comprehending and responding to academic texts. Prerequisites: ESL 085, ESL 081 or ESL Placement Test. Co-requisites: ESL 061/062, ESL 096 and BIO 006. 3 lecture hours per week. 3 institutional credit hours.

ESL 091 Writing I

This course is part of the fifth level of instruction. The purpose of the course is to develop in students the ability to express their concerns and experiences in clear, organized American English. Prerequisite: ESL 045 or ESL Placement Test. Corequisites: ESL 054, ESL 055. 3 lecture hours per week. 3 institutional credit hours.

ESL 092 Writing II

This course is part of the sixth level of instruction. Students write papers which range from the personal narrative to projects which incorporate information from a variety of sources. Prerequisite: ESL 091 or ESL 095 or ESL Placement Test. Corequisites: ESL 064, ESL 065. 3 lecture hours per week. 3 institutional credit hours.

ESL 095 Writing I in Allied Health for ESL

ESL 095 is a Level 5 high-intermediate writing course that is designed for students whose native language is not English and who plan to major in Allied Health careers. This course is grouped together with a specific sequence of ESL courses and a Biology course (ESL 051/052, ESL 085 and BIO 005) which focus on improving English language skills in the context of Anatomy and Physiology/Allied Health. The purpose of this course is to help students express their ideas fluently and accurately in English utilizing effective writing process strategies, and to introduce students to writing in response to a variety of sources. Prerequisite: ESL 045 or ESL Placement Test. Co-requisites: ESL 051/052, ESL 085, BIO 005. 3 lecture hours per week. 3 institutional credit hours.

ESL 096 Writing II in Allied Health for ESL

ESL 096 is a Level 6 advanced writing course that is designed for students whose native language is not English and who plan to major in Allied Health careers. This course is grouped together with a specific sequence of ESL courses and a Biology course (ESL 061/062, ESL 086 and BIO 006) which focus on improving English language skills in the context of Anatomy and Physiology/Allied Health. The purpose of this course is to extend the students ability to write academic essays that are accurate, clear and organized. The emphasis is on responding to academic sources, utilizing quotations, paraphrasing, and summarizing. Prerequisite: ESL 095, ESL 091 or ESL Placement Test. Co-requisites: ESL 061/062 ESL 086, and BIO 006, 3 lecture hours per week. 3 institutional credit hours.

FIA • Fine Arts

FIA 103 Fundamentals of Music

The acquisition of basic music skills including learning to read music, playing simple instruments, conducting and teaching songs by note. This course should be of particular interest to those considering a career in elementary education. 3 lecture hours per week. 3 credit hours.

FIA 104 Introduction to 2D Design

This studio art course using several mediums provides a practical and theoretical analysis of the elements of design (line, shape, color, texture, and value) in the image-making process. Additionally, this course examines the principles of organization and aesthetics that govern their interaction in a formal compositional setting. This course serves as an introduction and prerequisite to studio art and architecture courses. 3 lecture hours per week. 3 credit hours.

▲ FIA 105 Music Appreciation

Development of a greater sensitivity for the "Aesthetic Experience" through music. The emphasis is on discussions of and listening to classical, non-western and women composers in music. This course also includes discussions of and listening to rock and jazz, where appropriate. 3 lecture hours per week. 3 credit hours.

▲ FIA 106 History of Music

Introduction to the development of different styles and periods of music. Discussions and listening illuminate differences and similarities of these various styles as well as their causes. A general look at how music reflects the period in which it was written provides a historical perspective. 3 lecture hours per week. 3 credit hours.

FIA 107 Introduction to Dance

Begins with the explanation of the elements of Modern Dance—time, space, and energy. During the last half of the semester these elements are applied to the fundamental study of ballet. The course is taught through basic studio movement (warm-up, technique, and dance phrases) and through concert attendance, readings, videotapes, lectures, and discussions. 3 lecture hours per week. 3 credit hours.

▲ FIA 108 Appreciation of Art

A lecture course examining the aesthetics of the visual arts. The course will focus in on the many ways to see and understand two and three dimensional art forms. Studies include painting, sculpture, drawing, photography, the crafts, and other visual expressions examined through formal, iconographic, and conceptual means. A variety of art will be covered ranging from western, eastern, African, feminist, and other alternative, culturally significant art forms. 3 lecture hours per week. 3 credit hours.

FIA 109 Introduction to Drawing

Study of basic visual elements in drawing, emphasizing observation, selection, and recording of perceptual form. Value relationships, spatial organization, linear gesture, composition, balance, and the human figure are explored using graphic media. 3 lecture hours per week. 3 credit hours.

FIA 110 Introduction to Painting

Exploration of the basic visual elements using painting media and techniques. 3 lecture hours per week. 3 credit hours.

▲ FIA 111 Art History Survey I

A historical and visual survey of art and architecture from prehistoric beginnings through the Medieval Period. Study includes aesthetic, cultural, historic, and formal examination of works of art in a chronological, evolutionary sequence. A considerable amount of time is spent focusing on diversity and multicultural issues that have defined and shaped the process of development historic to human creative activity. Lecture course with supplemental visual presentation. 3 lecture hours per week. 3 credit hours.

▲ FIA 112 Art History Survey II

A visual survey of art and architecture from the Gothic Period through the 19th Century. Study includes an aesthetic, formal, historic, and cultural examination of painting, drawing, sculpture, and architecture in a chronological, evolutionary sequence. Time is spent focusing on how issues of cultural diversity and gender define and shape creative activity. Lecture course with supplemental visual presentation. 3 lecture hours per week. 3 credit hours.

FIA 115 Fundamentals of Figure Drawing

Advanced drawing study using graphic media as a tool for expressive interpretation of the human figure and other visual problems. Study focuses on the tools, techniques, concepts, and approaches of two-dimensional image making. 3 lecture hours per week. 3 credit hours.

FIA 116 Fundamentals of Painting

Advanced study of painting concepts and technical processes involving light, shape, form, space, and composition. 3 lecture hours per week. 3 credit hours.

▲ FIA 117 Survey of Music in the Twentieth Century

An examination of the development of Classical, Film, Musical Theater, Non-Western, Jazz and Rock music composed in the twentieth century, including Women, Latino, and African-American composers and their contribution to twentieth century music. 3 lecture hours per week. 3 credit hours.

▲ FIA 119 Introduction to Architectural History

This course provides the student with visual literacy and an introduction to aesthetic concepts, its story, and methodologies within Western and Non-Western architecture. Integrated are the architectural processes, techniques, and their deployment within the literary and cultural history. A variety of art historical sources will be referenced to develop critical thinking, critiquing, and writing. The course will cover the period from primitive building structures, the Egyptian and Middle East to the Greco-Roman, early Christian, Islamic, African, Asian, Romanesque and Gothic. 3 lecture hours per week. 3 credit hours.

▲ FIA 120 Architectural History

This course provides the student the visual and literary vocabulary that adds to the first semester course a fundamental perception of the aesthetics and construction techniques involved with the art of architecture. Included are the architectural advancements and styles within a variety of global cultural and literary history gleaned from a variety of sources. This will enable the student to critically think when writing the term paper. This course covers the occasion of the renaissance to the baroque, neo-classical and the Age of Reason, 19th century, and the modern period up to the post-modern, global period. 3 lecture hours per week. 3 credit hours.

FIA 121 Introduction to Architectural Rendering

Study of graphic styles used in architecture and development of perspective renderings of interior and exterior buildings. Prerequisite: FIA 109 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 202 Introduction to Graphic Design

An introductory design studio course which provides a basic vocabulary and fundamental understanding of the technique, concepts, and processes involved in the visual communication field of Graphic Design. Topics include a historic and contemporary examination of graphic communication, paste-up, layout, preparation of comps, roughs, and mechanicals, and an introduction to computers and design-related software. Prerequisite: FIA 104 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 203 Introduction to Modern Dance

The study of three major modern dance styles focusing on technique and choreography. The course is designed to lead students to the development of their own movement style through studio dance, lecture, readings, concert attendance, videotapes, films, and discussions. Prerequisite: FIA 107 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 204 Fundamentals of Graphic Design

An advanced course in graphic design that serves as a continuation of Graphic Design I. A more specific emphasis on beginning and advanced design problem solving is provided using learned graphic design skills. Study includes a more complete understanding of the graphic design production process including typesetting, typography and lettering, advanced use of computers and software duotone and four-color production. Prerequisite: FIA 202 or permission from instructor. 3 lecture hours per week. 3 credit hours.

▲ FIA 205 Introduction to Drama

A study of the classics of European drama both as "text" and "event." Readings of selected masterworks together with active class participation in several modes of drama through scene study, criticism, improvisation, field trips and, for those interested, playwriting and directing. Readings include Aeschylus, the Elizabethans, and Moliere. Prerequisite: ENG 101 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

▲ FIA 206 Fundamentals of Drama

A study of classics from the modern theater both as "text" and "event". Readings of selected masterworks together with active class participation in several modes of drama through scene study, criticism, improvisation, field trips and, for those interested, playwriting and directing. Readings include Ibsen, Shaw, Tennessee Williams, Harold Pinter, and others. Prerequisite: ENG 101 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

FIA 207 Introduction to Acting

Basics of voice, movement, and interpretation. Development of imagination and observation leading to the ability to present these skills in all forms of dramatic presentations. 3 lecture hours per week. 3 credit hours.

FIA 208 Fundamentals of Acting

Advanced work on developing voice, body, and imagination as components of the actor's "instrument". Discovering styles suitable for works from different periods and the relationship between the actor and the text. An examination of tradition and techniques of the principal modes of theater: tragedy, comedy, realism, fantasy, and farce. Prerequisite: FIA 207 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 209 Introduction to Illustration

An introductory studio course which provides the student with a basic vocabulary and fundamental understanding of the concepts, techniques, and skills involved in the visual arts communication field of illustration. Along with a historic and contemporary examination of illustration, the student is taught to differentiate between product, journalistic, and advertising forms of illustration. Considerable time is spent on specific studio approaches to illustration including use of pencil and dry media, pen and ink, watercolor, oil, gouache, tempera, acrylic painting techniques and applied computer technology. Prerequisites: FIA 109 or FIA 110 or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 210 Fundamentals of Illustration

An advanced commercial art course in illustration that serves as a continuation of the Illustration I course. A more specific focus on beginning and advanced problem solving is provided using learned studio illustration skills. Study includes the preparation of black and white, three-color, and four-color illustrations and comps for various journalistic, product, and advertising purposes. Emphasis is on visualization, originality of expression, and concept/problem solving using applied computer technology. Prerequisites: FIA 109 or FIA 110 and FIA 209 or permission of instructor. 3 lecture hours per week. 3 credit hours.

▲ FIA 220 Introduction to History of Photography

A course examining the history of photography from 1839 to the present. Emphasis is placed on a study of the evolution of photographic processes, art historical and sociological impact, trends and major artists. 3 lecture hours per week. 3 credit hours.

FIA 221 Introduction to Photography

An introduction to photography principles and practices including 35mm camera operation, film development, print processing, exposure technique, and some contemporary issues of photographic practice in the arts. Prerequisite: Students must have their own appropriate camera (or access to one). 3 lecture hours per week. 3 credit hours.

FIA 222 Fundamentals of Black-and-White Photography

An advanced black and white photography course with an emphasis on the zone system exposure and printing methods. Course includes an introduction to large format cameras and studio lighting. Prerequisite: FIA 221 or equivalent or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 223 Introduction to Color Photography

An introduction to color photography involving film exposure, print processing, color correcting and analysis, with an exploration of contemporary issues/techniques of color photography. Prerequisite: FIA 221 or equivalent or permission of instructor. 3 lecture hours per week. 3 credit hours.

FIA 224 Introduction to Digital Imaging

This course provides students with an introduction to the technical and creative aspects of manipulating photographic and digitally generated images in a Macintosh computer environment utilizing state of the art hardware and software. It is recommended that students complete study in either FIA 202 - Graphic Design I or FIA 221 - Black & White Photography I, or FIA 223 - Color Photography, or permission of instructor before enrolling in Introduction to Digital Imaging. 3 lecture hours per week. 3 credit hours.

FIA 225 Fundamentals of Digital Imaging

This course provides students with advanced technical training in the field of digital imaging and an opportunity to apply learned skills to create digitally manipulated images from two-dimensional and three-dimensional photographic and computer generated sources. An integrated component of this course focuses on the use of "state of the art" digital hardware and software to output high resolution, exhibition quality, ink jet and dye sublimation images on a diversity of media. Students are required to complete study in Digital Imaging for Art and Photography I prior to enrollment in the Advanced Digital Imaging for Art and Photography course (or by securing special permission by the instructor). It is also recommended that students complete study in either FIA 202 - Graphic Design I, FIA 221 - Black & White Photography I, or FIA 223 - Color Photography, or FIA 224 - Introduction to Digital Imaging or permission of the instructor before enrolling in Advanced Digital Imaging. 3 lecture hours per week. 3 credit hours.

FRE • French

▲ FRE 101 Beginning French I

Development of the fundamentals skills of understanding, speaking, reading, and writing. Listening practice available. Media are incorporated into the classroom experience and web-based materials are a required part of the course. Native speakers of French must get approval of Modern Languages Coordinator or the instructor. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

▲ FRE 102 Beginning French II

A continuation of FRE 101. Media are incorporated into the classroom experience and web-based materials are a required part of the course. Native speakers of French must get approval of Modern Languages Coordinator or the instructor. Prerequisite: FRE 101 or two years high school French. 3 lecture hours per week. 3 credit hours.

▲ FRE 111 Intermediate French I

Review of fundamental skills of understanding, speaking, reading and writing. Media are incorporated into the classroom experience and web-based materials are a required part of the course. Not generally open to native French speakers. Prerequisite: FRE 102 or three years high school French. 3 lecture hours per week. 3 credit hours.

▲ FRE 112 Intermediate French II

A continuation of FRE 111. Not generally open to native French speakers. Prerequisite: FRE 111. 3 lecture hours per week. 3 credit hours.

FRE 115 French Culture and Civilization (Foreign Study)

A comprehensive survey of French culture and civilization including geography, social and economic factors. The achievements in painting, sculpture and architecture will be examined. This course is offered only in conjunction with a trip to France or French Canada and fulfills one semester of the French Modern Language requirement. 3 credit hours.

▲ FRE 121 Advanced French I

Further development of skills in reading, composition and conversation. Prerequisites: FRE 112, 3 years high school French or its equivalent. 3 lecture hours per week. 3 credit hours.

▲ FRE 122 Advanced French II

A continuation of FRE 121. Prerequisite: FRE 121. 3 lecture hours per week. 3 credit hours.

FRE 215 History of French Film

A survey of the major periods in the evolution of French film from the silent era through the New Wave to the present, with an emphasis on the major filmmakers: Renoir, Truffaut, Godard. The place of French film in the social and political history of the twentieth-century France will be explored. Prerequisite: ENG 102 or ENG 122 or permission of instructor or Modern Languages coordinator. Fulfills one semester of Foreign Language requirement or may be taken as a free elective. 3 lecture hours per week. 3 credit hours.

FST • Fire Science Technology

FST 102 Building Construction

This course provides professional fire service personnel and individuals in related fields with an understanding of the basic principles of building construction. It presents background information concerning the national and local building codes, the national fire codes and how they affect modern design and building construction. It relates these principles to practical problems of the fire service. Prerequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

FST 103 Fire Protection

An introductory course designed to examine general aspects of fire protection. Students study the behavior of fire, the extinguishing agents used in suppressing fire, and the strategies used to prevent fires. The roles of public and private fire protection services are also analyzed. 3 lecture hours per week. 3 credit hours.

FST 105 Fire Prevention

A study of the basic principles of fire prevention and inspection with emphasis on the recognition of fire hazards in commercial and in industrial occupancies, the various protection systems dealing with these hazards, the use of practical test facilities, and the enforcement of building laws, fire ordinances, and municipal codes. Prerequisite: ENG 098. 3 lecture hours per week. 3 credit hours.

FST 106 Fire Fighting Tactics

An examination of the tactical capabilities and limitations of company-level operations at emergency incidents. Particular attention is given to the operation of the basic tactical units of fire departments: Engine, Ladder, and Rescue companies. 3 lecture hours per week. 3 credit hours.

FST 107 Hazardous Materials

A course for professional fire and safety personnel concerned with hazards found in industry and techniques used to control them. A study of the use, proper storage, and transportation of hazardous materials, with particular emphasis placed on safety measures to be followed when handling these materials at a fire or other emergency. 3 lecture hours per week. 3 credit hours.

FST 108 Fire Hydraulics

This course provides fire protection personnel and professional firemen with an understanding of the properties, principles, and concepts of fluid materials, particularly water. The course presents a background of the basic properties of fluids, pressures, flows, pumps, and practical applications. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 109 Fire Protection Systems

Introduction to fire detection and suppression devices. The design, operation and maintenance of, and code requirements for, the various systems are examined, with special emphasis on the special problems created by hazardous occupancies. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 111 Fire Causes and Detection

The course will provide the student with an understanding of the history, development, and philosophy of fire investigation and detection; the gathering of evidence and development of technical reports; and the processing of criminal evidence and examination of criminal procedures as they relate to arson investigation. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 112 Emergency Rescue Operations

Students are instructed in various aspects of rescue operations. Topics of discussion include: responsibilities of the officer in command, the use of specialized rescue tools and equipment, problems of vehicle rescue, and techniques for handling casualties. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

FST 113 Fire Department Organization and Management

The course provides the student with the basic concepts of management and organization of fire departments. It examines the structure and types of fire department organizations, the functions of the manager, and the role of leadership. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

FST 114 Legal Aspects of Fire Protection

A study of legal rights and obligations, liability concerns and responsibilities involving fire department organizations carrying out their duties. 3 lecture hours per week. 3 credit hours.

FST 115 Insurance Grading Schedules

This course develops an understanding of all aspects of fire insurance. A major emphasis includes its function, type of carriers, provisions, and how rating systems are established. Additionally, it examines handling of risk and settlement claims. 3 lecture hours per week. 3 credit hours.

FST 116 Fire Safety Code

A study of the history and development of codes, with emphasis on the nature and scope of legal statutes and related codes in fire protection control. Prerequisites: ENG 088, ENG 098, MAT 011. 3 lecture hours per week. 3 credit hours.

FST 119 Incident Command

A study of the command and control of operations at major incidents or disasters. The role of the fireground or incident commander is stressed: major features include central control over and coordination of human and material resources with particular recognition given to the safety of fire personnel and disaster victims. Prerequisite: FST 106. 3 lecture hours per week. 3 credit hours.

FST 218 Fireground Strategies and Concepts

A study of the advanced tactical procedures and underlying strategic concepts required for effective operations at emergency incidents. Emphasis is on multi-unit and special emergency operations. Prerequisite: FST 106. 3 lecture hours per week. 3 credit hours.

GDP • Game Design Development

GDP 101 Fundamentals of Game Design

This course covers the many aspects of game design. The course explains the process of how a game is designed and developed from the original concept through its distribution. Other topics included in the course are fundamental rules of good game design, basic storytelling, understanding the importance of game design development teams, and incorporating external resources to complete the game. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

GDP 110 Game Design and Development I

This course provides students with the basics of game design. Students will be familiar with videogames, computer games, and just plain games. Students will have the opportunity to learn about a variety of games from non-computer games – Monopoly to Diplomacy – to computer games. Topics include the four essential elements of game design: imagining a game, defining the way that it works, describing its internal elements, and communicating this information to others. Prerequisites: ENG 089, ENG 099. 3 lecture hours per week. 3 credit hours.

GDP 115 The Business of Gaming

This course covers many aspects about the business of game development including new media and intellectual property. Students learn about legal issues that concern the game industry. Some of these issues are choosing a business entity to finance, human resources, intellectual property protection, publishing contract negotiation, and licensing. This course will help students become more efficient in the game development industry. Prerequisites: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

GDP 201 Principles of Animation

This course provides students with animation techniques. Students will learn facial animation, cloth simulation, animation blending, soft body mesh deformation. Prerequisites: ENG 101, GDP 110, MAT 119. 2 lecture and 2 laboratory hours per week. 3 credit hours.

GDP 210 Game Design and Development II

This course provides students with the basic mechanics of building a double buffered sprite engine and the ability to write their own games using Visual Basic along with Windows API routines and DirectX. Students will learn about the game engine and how it is used as well as interactivity. Prerequisites: GDP 110, CIS 130, MAT 119. 2 lecture hours and 2 laboratory hours per week. 3 credit hours.

GDP 215 3D Game Programming

This course provides students with the fundamentals of 3D Programming. Students will explore topics such as lighting, materials, particles and dynamics, character animation, rendering and using paint effects. Another topic covered is the modeling technique, NURBS which is Non-Uniform Rational B-Splines. Prerequisite: GDP 210. 2 lecture and 2 laboratory hours per week. 3 credit hours.

GDP 280 Game Development Portfolio

In this course students will development their own games from design to completion. Students will be using the practical skills that they learned in previous courses in game development. This portfolio can then be used by students looking for employment. Prerequisite: Completion of all third semester courses and a GPA of at least 2.0. 3 credit hours.

GEO • Geography

▲ GEO 201 World Geography

This course is an introduction to the physical and political geography of the world. It explores how the earth's physical features, natural resources, and climate connect with economics and politics to shape human culture. The major world geographic regions are also explored. Corequisite: ENG 101, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

GER • German

▲ GER 101 Beginning German I

Development of the fundamental skills of understanding, speaking, reading and writing. Listening practice available. Media are incorporated into classroom experience. Native speakers of German must get approval of Modern Languages Coordinator or the instructor. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

▲ GER 102 Beginning German II

A continuation of GER 101. Media are incorporated into classroom experience. Native speakers of German must get approval of Modern Languages Coordinator or the instructor. Prerequisite: GER 101 or two years high school German. 3 lecture hours per week. 3 credit hours.

GER 105 Conversational German I

Development of ability to communicate orally in German. The course stresses the development of aural/oral skills through conversation based on topics of everyday life. Students who wish to take German 105 must have completed two years of high school German or German 102, or must have the permission of the instructor. Fulfills one semester of the foreign language requirement. Not open to native German speakers. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

GEY • Geology

▲ GEY 101 Physical Geology

Study of the origin and nature of rocks and minerals, volcanism and metamorphism, surficial processes of erosion and deposition; problems of water supply and pollution. One or more all day field trips are required in addition to regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ GEY 102 Historical Geology

Study of structural geology and sedimentation, evolution of continents and ocean basins; evolution of animals and plants, plate tectonics and continental drift; man's place in evolution. One or more all day field trips are required in addition to regularly scheduled lab sessions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

GEY 121 Physical Geology

GEY 101 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

GEY 122 Historical Geology

GEY 102 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required. 3 lecture hours per week. 3 credit hours.

GEY 270-299 Topics in Geology

Studies in an area of the geological sciences. A specialized topic, announced during the prior semester, will be chosen in an area of geology that is of interest or use to students and the general public. Guest lecturers from geology and other disciplines may be involved. Methods of instruction may include lectures by faculty and students, seminar discussions, field trips and visits to museums and other institutions. 1, 2, or 3 credits are offered depending on hours and course format.

GEY 290-299 Independent Study in Geology

One-semester courses designed to cover an approved in-depth exploration of some aspect of Geology. The course is intended to provide the student with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current Geology courses. This course will not fulfill a laboratory science requirement and requires the recommendation and permission of the Department Chair or instructor as a prerequisite for registration. It is recommended that the student have at least two semesters of college Geology. 1, 2, 3 or 4 credit hours.

GOV • Government

▲ GOV 105 Introduction to Contemporary Government and Politics

An introduction to the basic concepts of government and politics through analyses of current political events. It is designed to help prepare students for sophomore level courses, particularly in government. Basics of research and writing in this area are covered. Prerequisite: ENG 087. 3 lecture hours per week. 3 credit hours.

▲ GOV 201 American Government and Politics

Comprehensive analysis of American political institutions on the federal, state, and local levels. Study of the U.S. Constitution, federalism, public opinion, political parties, elections, pressure groups, and the role of the citizen in the American political process. Prerequisites: ENG 089, ENG 099, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ GOV 202 American National Government

Comprehensive analysis of the organization, functions, and administration of the American national government, Study of the Presidency, the Congress, the Judiciary, civil rights and civil liberties, constitutional law, domestic and foreign policy. Prerequisites: ENG 089, ENG 099, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

GOV 203 Urban Government and Politics

An investigation of urban government and politics, and those political structures, forces, and issues that particularly affect the urban community. Topics include machine politics, the politics of reform, the service challenge, and civil disorders. Prerequisites: ENG 089, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

GOV 204 Public Administration

An analysis of government utilization of human and material resources in developing and executing public policy. Concepts examined include bureaucracy, leadership, decision making, personnel and fiscal management. Prerequisites: ENG 089, ENG 099, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ GOV 205 Comparative Governments

This course provides a traditional introduction to the comparative analysis of political systems. It focuses on governmental institutions and processes. Case studies include the United Kingdom, France, Germany, and Russia, as well as non-Western states. Prerequisite: ENG 101, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ GOV 207 International Politics

An introductory survey course into the international relations subfield of the academic discipline of "political science." As an introductory survey course in the field of political science, it serves as a "social science general education" course. This course provides a traditional introduction to international politics. The nature of the state system, national power, national interest, war, the rise and collapse of the Soviet Union, the United Nations, and the impact of the so-called Third World are considered. Prerequisite: ENG 101, or permission of instructor or Department Chair. Corequisite: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 208 New Jersey Government and Politics

An analysis of state and urban government with emphasis on New Jersey; local and political problems of the state; governmental organization; the relations of the state with units of local government. Prerequisites: ENG 089, ENG 099, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

GOV 210 Seminar on the Third World, the United Nations, and International Law

This seminar examines the emergence of the non-Western world since the end of World War II. The role of the United Nations, particularly with regard to issues of decolonization, is discussed, as well as the impact these newly independent states have had on the development of international law. Prerequisites: ENG 101 and GOV 202 or GOV 207, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ GOV 215 Women and American Politics

Through an examination of our nation's changing attitudes towards women, their evolving roles in society and current events, the students will come to understand the relationship between gender and politics. The course will examine the roles played by women in our democracy and how they affect the American experience. The distinction between men and women in the political context continues despite the gains women have made in this area. Prerequisite: GOV 201 or GOV 202, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ GOV 216 Women and the Justice System

The laws of any society are a codification of contemporary values and beliefs. The students will examine legal history and the changing roles of women in society. This includes an examination of the daily challenges women face and the treatment women receive once they have become involved in the justice system (both civil and criminal). It is designed to explore Constitutional, familial, educational, employment and criminal issues.

Prerequisite: GOV 201 or GOV 202, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

GOV 270-289 Issues in Government

Selected problems and topics in government and politics are viewed from the perspective of the perennial questions underlying political science. Topics are chosen in accord with the interests of the entire community and their professional suitability. These courses are of a nature so specialized or timely that they can best be offered not on a regular scheduled basis, but rather periodically. Individual topics are announced prior to registration; one, two, or three credits are offered depending on hours and course format. With permission of instructor. Prerequisites: ENG 089, ENG 099.

HIS • History

HIS 091 Contemporary American Issues

Conducted within the general framework of American history, this course emphasizes a topical approach to contemporary American issues. These issues form the bases for readings and discussions.

Working back into time, the historic origin and development of these issues and their interaction with the total social milieu are explained and analyzed. Prerequisite: ENG 087. 3 lecture hours per week. 3 institutional credit hours.

▲ HIS 101 Introduction to Western Civilization I

This course examines the history of Western Civilization from ancient times to about 1600. It covers the development of the Greek, Roman, Medieval, and Early Modern civilizations. Political, economic, social, religious, and cultural factors are considered. Prerequisites: ENG 088, ENG 098, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ HIS 102 Introduction to Western Civilization II

This course continues the exploration of Western Civilization from the early modern period to the present. It discusses such topics as absolutism, constitutionalism, modern science, revolution, industrialization, colonialism, world wars, totalitarianism, the Cold War, and the forming of a new global civilization. Political, economic, social, religious, and cultural factors are considered. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

▲ HISH 102 Introduction to Western Civilization II (Honors)

This course continues the exploration of Western Civilization from the early modern period to the present. It discusses such topics as absolutism, constitutionalism, modern science, revolution, industrialization, colonialism, world wars, totalitarianism, the Cold War, and the forming of a new global civilization. Political, economic, social, religious, and cultural factors, as well as specific honors focus on the relevant intellectual history, are considered. Prerequisites: ENG 088, ENG 098, and either a 3.2 GPA or permission of instructor or coordinator of Honors Studies. 3 lecture hours per week. 3 credit hours.

▲ HIS 103 Introduction to World History I

A study of the major elements of world history from ancient times to 1500. Attention is given to prehistoric humans; the irrigation societies of Mesopotamia, Egypt, and India; the classical civilizations of Greece, Rome, India, and China; the later cultures of Byzantium, Islam, East Asia, Africa, the Americas, and Europe. Students may take this course, with its more global emphasis, instead of HIS 101 in any program where HIS 101 is required. Students will not, however, earn credit for both HIS 101 and this course. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

▲ HIS 104 Introduction to World History II

A study of the major elements of world history from 1500 to the present. Attention is given to the Protestant Reformation, the Enlightenment, the rise of absolutism, the impact of revolution, democracy and nationalism, the world wars, and challenges faced by contemporary humankind in an age of global interdependence. Students may take this course with its more global emphasis, instead of HIS 102 in any program where HIS 102 is required. Students will not, however, earn credit for both HIS 102 and this course. Prerequisites: ENG 088, ENG 098, or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ HIS 105 Afro-American History I

A history of Black people from their advent in the New World to the Civil War. The African heritage and its contributions to the development of African-American culture are considered along with the slave trade and the effects of the institution of slavery. Also included are the early struggles for emancipation, resistance to slavery, the Abolitionist movement viewed from both the black and white perspective, the reasons behind the Emancipation Proclamation, and the impact of the Civil War on American society. In order to satisfy degree requirements, students may substitute this course for HIS 101 or HIS 201 with the approval of the instructor or the Department Chair. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

▲ HIS 106 Afro-American History II

A history of Black people from Reconstruction to the present. The promise and disappointment of freedom in the post-Civil War world and the emergence of the new black leadership in the struggle for equality and dignity are considered. From Booker T. Washington's cooperative approach to the present, the student studies the forces that are shaping the emergence of Black people as full participants in American life. In order to satisfy degree requirements, students may substitute this course for HIS 102 or HIS 202 with the approval of the Department Chair. Prerequisites: ENG 088, ENG 098. 3 lecture hours per week. 3 credit hours.

▲ HIS 201 United States History to 1865

A survey of U.S. history from its colonial foundations to the Civil War. Attention will focus on the major political, economic, social and intellectual developments of the period. Prerequisites: ENG 089, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ HIS 202 United States History Since 1865

A survey of U.S. history from Reconstruction to the present. Attention will focus on the major political, diplomatic, economic, social, and intellectual developments of the period. Prerequisites: ENG 088, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

HIS 205 English History from 1600 to the Present

A study of the major political, economic, social and cultural events and issues from the end of the Tudor period to the present. Emphasis is on the unification of the national state, the growth of parliamentary democracy and its effects on the American Revolution, the Industrial Revolution, the growth and decline of the Empire, the Welfare State, and the entrance into the Common Market. Prerequisites: ENG 089, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ HIS 209 Twentieth Century European History

An examination of the economic, social, and political trends of the twentieth century. The focus is on Europe, but attention is also given to the impact of the two world wars and their after-effects on the rest of the world. Prerequisites: ENG 089, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ HIS 215 The American Experience in the Twentieth Century

An investigation of twentieth century America covering major events, trends, and ideas. Flexibility within the course permits focusing on themes of special interest such as the Great Depression, Urbanization, the Cold War, the Counter-culture, and the complexities of current national life. Prerequisites: ENG 089, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ HIS 270-289 Topics in History

Studies of selected events, personalities, and issues in history, stressing interpretation and historical methods. Topics are chosen on the basis of their impact on succeeding generations and their connection with present concerns. These courses are of a nature so specialized or timely that they can best be offered periodically rather than on a regular scheduled basis. Individual topics are announced prior to registration; one, two or three credits are offered depending on hours and course format. With permission of instructor, or Department Chair. Prerequisites: ENG 089, ENG 099.

HIS 270 The Classical Heritage of Greece and Rome

This course is an introduction to classical Greek and Roman history. Topics include the rise of the Greek city-states, the Trojan War, the political influence of Sparta and Athens, the Greco-Persian relationship, and the Peloponnesian War. Students will also consider the historical significance of Alexander the Great, the rise and fall of the Roman Republic, and the spread of empire during Rome's imperial stage. The course will conclude with a look at Roman culture in the second millennium and the rise of Christian Europe in the fourth century B.C.E. Prerequisites: ENG 089, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

HIS 279 New Jersey History

This course covers the history of New Jersey from early exploration and settlement to the present, with more emphasis on the origins and establishment of New Jersey as a colony and a state, and the role the state has played in the development of the nation. The historical background will serve as a springboard for the study of the 19th and 20th century industrial growth that would make New Jersey one of the most influential states in the nation. Prerequisites: ENG 088, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ HIS 281 The Era of the American Revolution

This is a broad-based, introduction to eighteenth century American society and its major event the American Revolution. The course explores the cultural, social, economic, ideological, and political developments of the century which ultimately led to resistance, armed rebellion, and the creation of the American republic. Prerequisite: ENG 089, ENG 099, or permission of instructor or department chairperson. 3 credit hours; 3 lecture hours per week

HIS 290 Independent Study

A special research or development project or a course not currently offered in the Economics/Government/History Department. Reserved for the advanced student with individual needs. With permission of instructor. 3 credit hours.

HRS • Honors Studies

HRS 103 Honors Seminar in Cross-Cultural Study

In order to help students appreciate the complexity and diversity of other cultures, this course will focus on a specific topic each semester and explore it from multiple cultural perspectives. Attention will be paid to the contexts that help inform and shape the views of particular cultures on a given topic and related issues. Topics include: Gender and Sexuality, Race and Ethnicity in American Culture, Religious Fundamentalisms in the Modern World, Contemporary World Film. In order to promote closer student/faculty collaboration and encourage independent learning, enrollment in this course is limited to 20 students, the class is conducted in a seminar format, and students are encouraged to work with other students and to direct their own learning by selecting from a variety of opportunities that will be made available to them. Prerequisites: ENG 089 and ENG 099, and, together with the approval of the Coordinator of Honors Studies, one of the following: a minimum GPA of 3.2; high incoming test scores or transferring grades; a demonstrated desire for higher thinking with a special talent, background, or experience. This course satisfies the Humanities elective. 3 lecture hours per week. 3 credit hours.

HRS 104 Honors Seminar in Interdisciplinary Study

This course will focus on a specific topic each semester and explore it from the perspectives of different academic disciplines with emphasis placed on the importance of an interdisciplinary approach to the study of a given topic and related issues that do not readily fall under the purview of any single discipline. Topics include: Global Issues, Biomedical Ethics, A Skeptical View of the Paranormal, Death and Dying, Film and Society. In order to promote closer student/faculty collaboration and encourage independent learning, enrollment in this course is limited to 20 students, the class is conducted in a seminar format, and students are encouraged to work with other students and to direct their own learning by selecting from a variety of opportunities that will be made available to them. Prerequisites: ENG 089 and ENG 099, and, together with the approval of the Coordinator of Honors Studies, one of the following: a minimum GPA of 3.2; high incoming test scores or transferring grades; a demonstrated desire for higher thinking with a special talent, background, or experience. This course satisfies the Social Science elective. 3 lecture hours per week. 3 credit hours.

HRS 203 Honors Independent Study

This course is intended for students who are interested in pursuing an independent study project and working closely on it with an individual faculty member. Such projects can be linked directly to an academic discipline and end in the traditional research paper. However, projects could also include volunteer work, service to the college community, the undertaking of an artistic endeavor, or travel abroad. If no other means of receiving credit is available, this course can also be used to receive credit for work completed in a study abroad program or study in another community. Any faculty member or eligible student can initiate the independent study, but a project proposal must be approved by the Coordinator of Honors Studies before the student can register for the course. Prerequisites: ENG 089 and ENG 099, and, together with the approval of the Coordinator of Honors Studies, one of the following: a minimum GPA of 3.2; high incoming test scores or transferring grades; a demonstrated desire for higher thinking with a special talent, background, or experience. 3 credit hours.

HRS 204 Honors Independent Study

This course is intended for students who have already completed HRS 203 and are interested in pursuing another independent study project and working closely on it with an individual faculty member. Such projects can be linked directly to an academic discipline and end in the traditional research paper. However, projects could also include volunteer work, service to the college community, the undertaking of an artistic endeavor, or travel abroad. If no other means of receiving credit is available, this course can also be used to receive credit for work completed in a study abroad program or study in another community. Any faculty member or eligible student can initiate the independent study, but a project proposal must be approved by the Coordinator of Honors Studies before the student can register for the course. Prerequisites: ENG 089 and ENG 099, and, together with the approval of the Coordinator of Honors Studies, one of the following: a minimum GPA of 3.2; high incoming test scores or transferring grades; a demonstrated desire for higher thinking with a special talent, background, or experience. 3 credit hours.

HSM • Hospitality

HSM 100 – Introduction to the Hospitality Industry

This course takes a management perspective in introducing students to the organization and structure of hotels, restaurants, clubs, cruise ships, and casino hotels. The emphasis is on business ethics, franchising, management contracts, and areas of management responsibility such as human resources, marketing and sales, and advertising. 3 lecture hours per week. 3 credit hours.

HSM 110 – Food and Beverage Management

This course gives students a basic understanding of the management process in food and beverage operations. All aspects of food and beverage operations are covered, including organization, marketing, menus, costs and pricing, production, service, safety, and finances. Prerequisite: ENG 099. 3 lecture hours per week. 3 credit hours.

HSM 120 – Managing Front Office Operations

This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and account settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations and to human resources management. Front office procedures and management are placed within the context of the overall operation of a hotel. Prerequisites: HSM 100, ENG 101. 3 lecture hours per week. 3 credit hours.

HSM 205 - Planning and Control of Food and Beverage Operations

This course explains the principles and procedures involved in an effective food and beverage control system, including standards determination, the operating budget, cost-volume-profit analysis, income and cost control, menu pricing, theft prevention, labor cost control, and computer applications. Prerequisites: HSM 100, HSM 110. 3 lecture hours per week. 3 credit hours.

HSM 220 – Managing Housekeeping Operations

This course presents a systematic approach to managing housekeeping operations in the hospitality industry. Topics include inventory lists, frequency schedules, and performance and productivity standards. Prerequisites: HSM 100, ENG 101. 3 lecture hours per week. 3 credit hours.

HSM 240 – Hospitality Sales and Marketing

This course is designed to provide students with a solid background in hospitality sales and marketing. The main focus is on practical sales techniques for selling to targeted markets. Prerequisite: HSM 100. 3 lecture hours per week. 3 credit hours.

HSM 280 - Internship in Hospitality Management

This one-semester internship in an approved hospitality organization reinforces classroom and textbook theory with practical hospitality operations experience. This course provides a forum where students can apply the management concepts learned in class and can acquire the hands-on experience necessary to qualify for an entry-level position in the hospitality industry. A weekly seminar on campus is included. This course is only open to matriculated students in the hospitality management program. This course should be taken in the student's last semester of the program. Prerequisites: HSM 210 and HSM 220. 3 credit hours.

HUD • American Sign Language & Deaf Studies

HUD 103 Text and Discourse Analysis for Interpreting

This course will focus on text and discourse analysis of American Sign Language and English in different registers/styles. Processes of text and discourse analysis, semantics and pragmatics, sociolinguistics, structures of ASL and English discourse will be discussed. The course will take an in-depth look at discourse through selected written texts, videotapes and live demonstrations. Lectures and videotapes will be used for skill development in text/discourse analysis and students will practice and apply discourse structures and semantics/pragmatics in ASL and English. Pre or Corequisites: HUD 105, ASL 205 and ASL 208 or permission of instructor. 3 lecture hours per week. 3 credit hours.

HUD 104 Fingerspelling

This course is designed to advance students on the skill development of hand configuration, basic word patterns, rhythm, comprehension of fingerspelled words, phrases, and numbers. Additional focus will be placed on fingerspelled loan signs. Prerequisites: ASL 101 and ASL 102. Corequisites: ASL 103 and ASL 104. 2 laboratory hours per week. 1 credit hour.

HUD 105 Interpreting Processes: Theory and Practice

A survey course introducing theories, principles, and practices of interpreting for Deaf persons. The course covers interpreting processes, physical and mental factors, attitudes, ethics, roles of the interpreter, perspectives of the consumers (deaf and hearing), and NIC (RID-NAD) certifications. Prerequisite skills for interpreting will be introduced in this course through instruction for application in interpreting. Students are exposed to basic interpreting situations in a variety of settings through field observations and through use of videotapes. Prerequisites: ASL 201 and ASL 205 or permission of instructor. 3 lecture hours per week and 25 field observation hours. 3 credit hours.

HUD 106 Interpreting Process Application in ASL to English

A review of theoretical components and principles of interpreting processes discussed in Interpreting Process: Theory and Practice (HUD 105) for application towards basic skill development in interpreting and transliterating from ASL/Signed English to Spoken English. Theories and Techniques of public speaking are discussed and applied. Strategies for effective comprehension and text analysis are discussed and practiced. Skill development application will be conducted within class. 12 hours of field observation on specific aspects of ASL to English Interpreting will be required. Prerequisites: ASL 202 and HUD 105. 2 lecture hours and 2 laboratory hours per week and 12 field observation hours. 3 credit hours.

HUD 108 Interpreting Process Application in English to ASL

A review of theoretical components and principles of interpreting process discussed in Interpreting Process (HUD 105) for application towards basic skill development in interpreting and transliterating from spoken English to ASL/Signed English. Strategies for effective listening skills, text analysis, conceptual accuracy and linguistic factors of sign language will be discussed and applied. Classroom practice is provided. 12 hours of field observation on specific aspects of Sign to voice interpreting will be required. 12 laboratory hours are required. Prerequisites: ASL 202 and HUD 105 and demonstration of proficiency by examination. 2 lecture hours and 2 class laboratory hours per week and 12 field observation hours. 3 credit hours.

HUD 109 Preventive Measures against Cumulative Trauma Disorder in Interpreting

This course will give sign language students and interpreters information and tools that may help prevent and manage cumulative trauma disorders (CTD). The course will cover an orientation and survey of issues related to CTD among sign language interpreters; factors that can lead to symptoms of overuse; preventive and management techniques to help reduce the likelihood of developing overuse symptoms; management techniques for dealing effectively with existing symptoms due to overuse. Prerequisite: HUD 105 or permission of instructor. 2 laboratory hours per week. Class meets for 7 sessions (biweekly). 1 credit hour.

HUD 110 Interpreter Role and Ethics

This course will provide exploration of ethical standards and dilemmas in interpretation through discussion, case studies, scenarios and role-plays emphasizing the dynamics of the interpreting team and similarities and differences between advocates, peer counselors, and interpreters. Emphases are on values, ethics, and morality; professional principles, power and responsibility; group dynamics; and decision making. RID-NAD's Code of Ethics are discussed, practiced and applied in role-plays and scenarios. Prerequisites: HUD 105 and HUD 103 or permission of instructor. 3 lecture hours per week. 3 credit hours.

HUD 215 Advanced Techniques of Interpreting

This course is a classroom practice to provide more in-depth skill and technique development in interpreting and transliterating and introduces students to specifically interpreting situations: education and technical, medical, mental health, legal, oral, deaf-blind, etc. Strategies for enhancing professional attitudes and ethical behaviors in interpreters, team interpreting and working with deaf interpreters are discussed. This course is highly interactive with literatures and group discussions as part of the institutional approach. Prerequisites: HUD 106 or HUD 108. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

HUD 216 Field Experience in Interpreting

90 hours of interpreting observation and hands-on experience with supervision. Students will gain experience interpreting in a variety of settings with Deaf consumers who have diverse linguistic preferences. Attendance to seminars and lab activities are required in conjunction with field experience activities. Development of paper and video portfolio are required for this course. Prerequisites: HUD 215 and HUS 201, demonstration of proficiency via examination and permission of instructor. 3 credit hours.

HUD 270-289 Selected Topics in Sign Language Interpretation

Studies of selected events, contemporary issues, topics or skill development in Sign Language Interpretation on the basis of timely concerns, community interests, students' requests, etc. These courses are of a continuation of professional skill development and of a timely or specialized nature and can be best offered not on a regularly scheduled basis, but periodically. Individual topics will be announced prior to registration; one, two or three credits will be offered depending on the nature of the course format and class hours. 1, 2 or 3 credit hours.

HUG • Gerontology

HUG 101 Multidisciplinary Perspectives on Aging

An introduction to the study of aging and older adulthood, giving an overview of the field, and developing a multidisciplinary background in theory and research along with an understanding of the needs of older adults. The course covers social, physiological, psychological, economic, and health aspects of aging. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

HUS • Human Services

HUS 101 Community Resources in Human Services

An introduction of human service needs and how various community service agencies are organized on the local, county, state and federal levels to meet these needs. The course examines how service agencies function in the areas of public health, welfare, mental health, rehabilitation, employment, correction and protection. Existing programs, and their operation in the alleviation of personal and social problems are evaluated. In addition, an overview of theory, practice and trends in human services are examined. 3 lecture hours per week. 3 credit hours.

HUS 103 Introduction to Techniques of Interviewing and Counseling

An examination of various counseling and interviewing styles and techniques and the theoretical foundation of each. Students develop skills and an understanding of developmental behavioral, nondirective, psychodynamic, transactional, and other approaches to individual and group counseling. Interviewing skills are developed through the use of student interaction, role playing, videotape, and recordings of actual student interviews. Specific attention is given to the nature, purpose, objectives, and approaches in health, welfare, social service, and rehabilitation agencies. Prerequisite: HUS 101 or permission of the instructor. It is recommended that the student has completed or is concurrently taking PSY 102. 3 lecture hours per week. 3 credit hours.

HUS 104 Understanding Social Research

The application of scientific methods to the study of human behavior. The relationship between theory and research is examined. Students develop skills in understanding and using such techniques as case studies, surveys, experiments, participant observation, testing, and basic statistical devices to analyze data. Prerequisite: HUS 101. 3 credit hours.

HUS 105 Workforce and Career Development I

This is the first course in a series that (together with work experience) helps prepare customer service workers in a variety of workforce development positions for a national Certificate in Career Development Facilitation (Human Resources Management). This is an applied theory and practice course, which focuses on labor market information and resources, helping skills, diverse populations, and technology use in career facilitation. Prerequisites: HUS 101 or present employment in the One-Stop Career Center network. 3 credit hours.

HUS 106 Workforce and Career Development II

This is the second in a 3-part series that helps prepare customer service workers in a variety of workforce development positions for a national Certificate in Career Development Facilitation (Human Resources Management). This is an applied theory and practice course, which focuses on career development models, advanced helping skills, career development assessment tools, diverse populations, ethical and legal issues, and computer applications for career development. Prerequisite: HUS 105. 3 credit hours.

HUS 107 Workforce and Career Development III

This is the final course in a series that helps prepare customer service workers in a variety of workforce development positions for a national Certificate in Career Development Facilitation (Human Resources Management). It includes an internship and seminar sessions. Topics covered in the seminar will relate the skills and knowledge acquired in the first two courses – HUS 105 and HUS 106 – to the internship experience. Prerequisite: HUS 106. 3 credit hours.

HUS 201 Externship in Human Services

A 90-hour field placement of the student as an observer-participant in two or more human service facilities/agencies. The course provides the student with an in-depth study of agencies related to their field of study and acquaints them with the services of the agencies and needs of the agencies' clients. Log reports and seminars are used in conjunction with the field activities. Prerequisite: HUS 101. 3 credit hours.

IDH • Interdisciplinary Health Studies

IDH 101 Fundamentals of Health and Disease

This course is adapted to the needs of the allied health student whose specialization will be as a part of a health care team. The general goal is to provide a survey or introduction to human disease by a method that is somewhat less intensive than the classic and general systematic pathology that is offered to medical students. It is intended to provide the student with a better understanding and appreciation of the human body in both health and disease. An examination of health problems, disease processes, and discussions of normal functions for comparisons occur. Classification, symptoms, and terminology associated with disease and wellness are discussed. An orientation to treatment, diagnosis, and prognosis is presented. 3 lecture hours per week. 3 credit hours.

IDH 103— Independent Research in Allied Health

This course is an opportunity for students to conduct an in depth exploration of some aspect of biology as it relates to the health care field. The course provides students with an opportunity to expand their knowledge in the biology of a health care area related to their future career choice. The student's mentor must approve the topic that will be researched. Students may elect to do a library research paper, fieldwork, laboratory exploration or some other project approved by the faculty mentor. Prerequisites: Completion of all remedial English courses, if required. Recommended that student will have successfully completed a college level biology course or have achieved a grade of 3 or higher on the AP Placement Exam. 3 lecture hours, 3 credit hours.

IDH 261 – Medical Terminology

This course is designed to familiarize students with the basic vocabulary used in the medical professions. Students will use a systematic, word-building approach to master the complex terminology of the medical field. Students will learn the prefixes, roots, and suffixes used to construct medical terms. A systems approach will be used to survey the basic anatomy and physiology of the human body, followed by selected terms used to define the pathology, and the diagnostic and treatment procedures associated with each system. This course will not satisfy a laboratory science requirement. Prerequisites: Completion of all remedial English courses, if required. Recommended that student will have successfully completed a college level human biology course with a laboratory component or a college level anatomy and physiology course with a laboratory component. 3 lecture hours, 3 credit hours.

IDS • Interdisciplinary Studies

IDS 128 Business Communications

This course offers the Walt Disney College Program participant the opportunity to learn the concepts inherent in business communication and apply them in the workplace. The skills taught are applicable to a wide variety of business environments. Participants will learn about the elements of communication, explore methods used to process information, identify basic listening skills, and recognize inclusive communication approaches. Other topics include meetings and group dynamics, presentations, and public communications. This course does not fulfill curriculum requirements for ENG 128 or ENG 129. Corequisite: Participation in Walt Disney College Program. 3 hours per week. 3 credit hours.

INT • Interpreting Spoken Language

INT 101 Interpreting I

Interpreting I is the first of a two-part sequence that develops the students' interpreting skills. Bilingual students in any spoken language will learn, practice, and acquire consecutive interpreting skills. These skills include: listening skills, analytical ability, note-taking, short-term memory enhancement, paraphrasing, rapid language switching, and self-monitoring of accuracy. An introduction to sight translation will also be included. 3 lecture hours per week. 3 credit hours.

INT 102 Interpreting II

Interpreting II is a continuation of Interpreting I. In this course students will continue to improve on the skills needed to do professional interpreting in spoken languages. Interpreting II will incorporate more difficult passages to interpret and will introduce simultaneous interpreting. Students will focus on the separate skills necessary for the simultaneous interpreting task, such as determining lag time, shadowing, improving comprehension by chunking, focusing on production by modulating delivery, and developing an intuitive ability in their target language. An important aspect of this course will be to teach students techniques they can use to maintain and improve their skills long after they have finished the program. 3 lecture hours per week. 3 credit hours.

INT 105 The Role of the Interpreter

The Role of the Interpreter will be a practical course on the many aspects of the profession that are not so obvious to the novice. The Interpreters Code of Ethics and Professional Conduct and its implications for impartiality will be stressed. Cultural considerations for interpreting will be discussed, especially the notion of interpreting content and style rather than grammar and vocabulary. The course will also deal with the role of professional organizations and tools that translators and interpreters use in their work. The course requires students to observe professional interpreters in a courtroom. This course is open only to students enrolled in the Certificate Program for Interpreting Spoken Languages. 3 lecture hours per week. 3 credit hours.

ITA • Italian

▲ ITA 101 Beginning Italian I

Development of the fundamentals skills of understanding, speaking, reading, and writing. Listening practice available. Media are incorporated into the classroom experience. Native Italian speakers must get approval of modern languages coordinator or the instructor. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

▲ ITA 102 Beginning Italian II

A continuation of ITA 101. Media will be incorporated into classroom experiences. Media are incorporated into the classroom experience. Native Italian speakers must get approval of modern languages coordinator or the instructor. Prerequisite: ITA 101 or two years high school Italian. 3 lecture hours per week. 3 credit hours.

▲ ITA 111 Intermediate Italian I

Review of fundamental skills of understanding, speaking, reading, and writing. Not generally open to native Italian speakers. Prerequisite: ITA 102 or 3 years of high school Italian. 3 lecture hours per week. 3 credit hours.

▲ ITA 112 Intermediate Italian II

A continuation of ITA 111. Prerequisite: ITA 111. 3 lecture hours per week. 3 credit hours.

ITA 115 Italy: Its Art and Culture (Foreign Study)

A survey of Italian art, culture, and civilization. Emphasis is on how geographical, political, social, and economic factors have shaped Italian life through the centuries. The aesthetic achievements in Italian painting, sculpture, and architecture are examined from the ancient period through Renaissance and Baroque art. This course is offered in conjunction with a trip to Italy and fulfills 3 credits in the Modern Language or Fine Arts Department. 3 credit hours.

ITA 215 History of Italian Film

A survey of the major periods in the evolution of Italian film from the silent era through neorealism to the present, with an emphasis on the major filmmakers: DeSica, Fellini, Antonioni. The place of Italian film in the social and political history of twentieth-century Italy will also be explored. Fulfills one semester Foreign Language requirement or may be taken as a free elective. Prerequisites: Eng 102 or ENG 122 or permission of instructor or Modern Languages coordinator. 3 lecture hours; 3 credit hours.

LGL • Paralegal Studies

LGL 101 Introduction to Paralegal Studies

This course introduces the student to the paralegal profession and the proper role of the paralegal in the legal system. Topics include the regulation of paralegals stressing attorney and paralegal ethics; introduction to the variety of paralegal practice environments and general career trends as well as an overview of the structure of the federal and state court systems and the role of the paralegal in the litigation process. Includes an overview of basic subject areas of law and legal terminology, and introduces the specific skills required of a paralegal in the law office. Prerequisite: ENG 089 and ENG 099. 3 lecture hours per week. 3 credit hours.

LGL 110 Legal Research

Through the use of hands-on manual research methods and computer-based Internet research techniques, students will learn to locate federal and state sources of law, including identification of primary and secondary sources of law. The digest system, key system, law reports, encyclopedic materials, and the Shepardization process will be taught to familiarize the student with the many resources available in the law library. Students will learn to analyze fact patterns, identify relevant legal issues and understand the concept of precedent. Corequisite: LGL 101. 3 lecture hours per week. 3 credit hours.

LGL 111 Legal Writing

This course is designed to familiarize students with procedures for writing correspondence, pleadings, discovery documents, memoranda of law and legal briefs. Students will learn the proper format of these documents, including acceptable forms of citations for various types of legal source materials. Emphasis will be placed on developing a legal writing style that is clear and concise. Corequisite: LGL 101. 3 lecture hours per week. 3 credit hours.

LGL 120 Contract Law

This course examines the rules governing formation of contracts and contractual disputes. The student will learn the elements of a valid contract, how to draft a contract, the enforceability of contracts and the judicial process, remedies available when a party fails to perform under a contract and third party interests. An examination of the Uniform Commercial Code and the common law will enable the students to spot the issues relevant to their case. Students will explore the roles of the paralegal in assisting an attorney in drafting the legal contract and handling a case involving a contract dispute. Corequisite: LGL 101. 3 lecture hours per week. 3 credits

LGL 140 Property Law

In this course students will study the laws governing real and personal property, types of ownership, the sale and transfer of real and personal property interests, rights in real property including easements, licenses, and encumbrances, land use regulation, landlord-tenant law, and forms of real estate ownership, such as cooperatives and condominiums. Students will become thoroughly familiar with the procedures for transferring title to real estate, and will review and prepare all documents required for closing of title, including the real estate contract of sale, deed, mortgage, affidavit of title, and closing settlement statement. Current real estate software will be used in order to prepare the student to enter the workforce with the requisite technology skills. Corequisite: LGL 101. 2 lecture hours, 2 lab hours per week. 3 credit hours.

LGL 210 Tort Law

This course introduces the student to the concept of Torts: the civil wrongs, resulting in injury or harm, perpetrated by one citizen against another. The three general categories of torts, intentional, negligent, and strict liability, will be discussed along with the numerous specific torts including trespass, assault, battery, negligence, products liability, and intentional infliction of emotional distress. This course will examine the proper role and ethical obligations of the paralegal in the field of Tort litigation, and will develop the skills paralegals use when assisting attorneys in bringing tort cases to trial. Prerequisite: LGL 101. 3 lecture hours per week. 3 credits

LGL 215 Law Office Technology

Through this course, students will become familiar with the workings of a law office or legal department, with an emphasis on the technology used to manage the law practice. Stress will be placed on organizational skills relating to docket and case management and billing procedures. Students will learn, through a hands-on approach, the various software applications including database management systems, litigation support software, telecommunications software, and legal timekeeping and billing software programs. Prerequisites: LGL 101 and CIS 100. 2 lecture hours; 2 laboratory hours; 3 credit hours.

LGL 220 Litigation I

In this course, students will examine the initial steps of the litigation process including client interviews, pre-litigation investigation and evaluation of the cause of action, drafting complaints and answers. The student will learn the details of filing a lawsuit including the jurisdiction and venue considerations and service of process. The structure of the court system and rules governing litigation are presented and students will explore the workings of a litigation practice and the role played by the paralegal. Emphasis is placed upon forms and documents used in litigation practice, and the ethical guidelines for the paralegal employed in a litigation firm. Corequisite: LGL 101, LGL 110. 3 lecture hours per week. 3 credit hours.

LGL 221 Litigation II

This course is a continuation of the examination of the litigation process begun in LGL 220, Litigation I. In this course, students will learn about the discovery and trial preparation process including the preparation of interrogatories, depositions, document production and inspection requests, and requests for admissions. Through a hands-on approach, students will learn to abstract depositions, organize case files, and prepare a trial notebook. This course will emphasize the role of the paralegal in assisting the attorney in trial preparation. Prerequisite: LGL 220. 3 lecture hours per week. 3 credits

LGL 230 Family Law

In this course, students will examine issues and procedures in matrimonial and family law matters. Topics include ethical considerations for the attorney and paralegal in family law, premarital agreements, formation and dissolution of marriage, divorce grounds and procedures, spousal and child support, division of property, separation agreements, child custody, legal status of children, adoption, and contemporary issues in the field of family law. Students will become familiar with the forms and documents used in the family law practice. Prerequisite: LGL 101. 3 lecture hours per week. 3 credit hours.

LGL 231 Criminal Law

This course will familiarize the student with the criminal law process from criminal investigations through appeal. Topics include probable cause, search and seizure, post arrest issues, evidence in criminal cases, the Miranda rule, arraignment and discovery, accessories and attempt, crimes against the person and crimes against property, crimes against the public order, trial procedure, defenses, sentencing and appeal. Emphasis is placed upon the role of the paralegal and ethical issues involved in working on a criminal case. Prerequisite: LGL 101. 3 lecture hours per week. 3 credit hours.

LGL 235 Wills, Estates & Trusts

This course examines the purpose and need for a will and the legal and procedural issues involved with the drafting, execution, and administration of a will. Students will explore the laws of testate or intestate succession, will validity requirements, modification and revocation of a will, probate administration, and types of trusts. Tax considerations in the administration of estates and ethical principles relevant to paralegals will also be discussed. Prerequisite: LGL 101. 3 lecture hours per week. 3 credits.

LGL 240 Business Organizations

In this course, the student will study different forms of business organizations and considerations in choosing a business entity. Topics include the formation and organization of sole proprietorships, partnerships, limited liability companies, and corporations and the tax considerations associated with each of these entities. Students will examine the documentation required to establish and maintain the various types of business organizations and will be instructed in the proper filing procedures. Prerequisite: LGL 101. 3 lecture hours per week. 3 credit hours.

LGL 250 Bankruptcy Law

This course is an overview of bankruptcy law and procedure to prepare paralegal students to assist attorneys representing debtors and creditors. It will cover commencement of a case, preparation of petitions and schedules, operating and liquidating procedures, adversary matters and litigation in bankruptcy court, and debtors' and creditors' rights and obligations. Forms utilized in bankruptcy court will be stressed. The course reviews the current Federal bankruptcy code including recent amendments. Prerequisite: LGL 101. 3 lecture hours; 3 credit hours.

LGL 260 Employment Law

This course is an overview of the legal framework governing employer-employee relations, employment discrimination, employment related common law torts and certain federal and state statutory schemes governing leave, unemployment, benefits and workplace injuries. Prerequisite: LGL 101. 3 lecture hours. 3 credit hours.

LGL 270 Immigration Law

This course is an overview of immigration law and procedure in the United States. Topics include worker and student visas, family visa petitions, issues in illegal immigration, refugee and asylum law, immigration court practice, and appeals. The course also covers citizenship and the requirements for an immigrant to become a citizen. The preparation of forms utilized in immigration practice will be stressed. Prerequisite: LGL 101. 3 lecture hours; 3 credit hours.

LGL 290 Paralegal Internship

Students gain hands-on work experience in a legal environment while working at least a total of 150 hours during the semester. The goal of the experience is to bridge the gap between classroom learning and the realities of the working world. Participants may be placed in private law offices, corporate legal departments, public agencies, legal services agencies, or other organizations. Students meet with the Coordinator of Paralegal Studies at the beginning of the semester for an orientation meeting and regularly thereafter to discuss internship goals and their progress. This course is an elective in the Paralegal Studies curriculum. Prerequisites: LGL 110, 111, and approval of the Paralegal Coordinator. 3 credit hours.

LIS • Library Science

LIS 105 Methods in Library Research

A systematic approach to Library resources in the new technological environment, designed to meet the needs of the student. The course covers the primary tools of a modern academic library: the catalog, the reference collection, online databases, and Internet searching, while developing the conceptual knowledge necessary for effective searching, evaluation, selection and use of information. Methods of research strategy are taught in conjunction with other course-assigned projects. A technology enriched class with many components online. 1 lecture hour per week. 1 credit hour.

THE MATHEMATICS DEPARTMENT

... offers courses designed to serve the various degree programs in the areas of Biology, Engineering, Engineering Technology, Liberal Arts, Business, and Allied Health fields. In order to meet the degree requirements, students must select courses according to the following guidelines.

College policy requires permission of the Department before you may register for a third attempt at a particular course. No third attempts will be allowed for any mathematics course unless the student involved has successfully completed the prerequisite of that course immediately before the third attempt. This applies to F's and W's. Absolutely no fourth attempts will be permitted.

All online students are required to take a proctored midterm and final exam and present a proper photo ID which can be a valid driver's license, passport, or state ID.

A.A. & A.S. PROGRAMS:

Engineering Programs:

Sequence:

MAT 143, MAT 144, MAT 171, MAT 172, MAT 271, MAT 272. Through testing students are placed into MAT 143, MAT 144, MAT 155, or directly into MAT 171. Students requiring additional developmental work may be placed into MAT 011, MAT 015 or MAT 022.

Biology Program:

Sequence:

MAT 143, MAT 144 or MAT 171, MAT 172. Through testing students are placed into MAT 143, MAT 144, MAT 155 or directly into MAT 171. Students requiring additional developmental work may be placed into MAT 011, MAT 015, or MAT 022.

Business Programs:

Sequence:

See advisor for first semester placement. For their second semester of mathematics students may take MAT 146 or MAT 171. MAT 246 may be substituted for MAT 146. Through testing students are placed into MAT 143, MAT 146, or MAT 171. Students requiring additional developmental work may be placed into MAT 011, MAT 015 or MAT 022.

NOTE 1: Students taking MAT 143 in the first semester may substitute MAT 144 for MAT 146 or MAT 246.

NOTE 2: MAT 146 (or MAT 171) is strongly recommended for all Business students planning to continue their studies in four-year institutions.

Liberal Arts Programs:

A) Students with backgrounds limited to Algebra I and Geometry.

Sequence:

MAT 011, MAT 015, MAT 016, MAT 117 (or MAT 119), or MAT 011, MAT 022, MAT 117 (or MAT 119); in options requiring a full year of credit mathematics the sequence may be completed with one of the following: MAT 125 (Liberal Arts or Education), MAT 127. Through testing, students are placed into MAT 011, MAT 015, MAT 022 or directly into MAT 117 (or MAT 119).

NOTE 1: Students with an algebra deficiency must qualify to take MAT 022 in place of MAT 015, MAT 016.

NOTE 2: Students planning to continue their studies at four-year institutions should consult a counselor to determine if MAT 117 or MAT 119 is more appropriate.

B) Students whose background includes the equivalent of Algebra II or higher may take the sequence in (A) above, but it is recommended that they take one of the sequences shown under the Biology or Business programs.

A.A.S. PROGRAMS:

Students in programs leading to an A.A.S. in Business (Accounting/Data Processing, Business Management, Computer Science/ Data Processing, Marketing, Office Administration), Engineering Technology (Civil/Construction, Electromechanical, Electronics, Electronics/Laser, Manufacturing, Mechanical), or Health Careers must satisfactorily complete those courses specified in their program outline.

CERTIFICATE PROGRAMS:

Students in a program leading to a certificate or certificate of achievement must satisfactorily complete those mathematics courses, if any, specified in their program outline. Students are expected to complete developmental requirements before admission to most diploma or certificate programs. Consult with your program coordinator for more information.

Students are urged to consult with their advisor whenever in doubt or when their interests lie in programs other than those listed above.

MAT • Mathematics

MAT 003 A Brief Review of Computational Skills

The course reviews the basic skills required as a prerequisite for Elementary Algebra. Topics covered include decimals, fractions, whole numbers, and operations involving them. Basic problems involving proportions, percent, and negative integers are emphasized. This course is limited to students who have achieved an appropriate score on the computation portion of the College Basic Skills Placement Test and who are invited by the Department. 1 institutional credit hour.

MAT 004 Basic Skills Review in Elementary Algebra

The course is a brief review of the basic skills necessary to pass the elementary algebra portion of the College Basic Skills Placement Test. The topics covered include polynomials, signed numbers, exponents, factoring, equations, and systems of equations. This course is limited to students who have achieved an appropriate score on the Computation and Elementary Algebra portions of the College Basic Skills Placement Test and who are invited by the Department. 1 institutional credit hour.

MAT 011 Pre-Algebra

This course is for students whose College Basic Skills Test scores indicate the need for preparatory work in arithmetic. It is a comprehensive study of arithmetic and allied processes with the purpose of preparing students for algebra. Emphasis is on the purpose and techniques of mathematics. Topics include arithmetic operations, fractions, decimals, percents, factors, proportions, signed numbers, and elementary equations. NOTE: Students may not register for courses numbered MAT015 or higher unless they have either passed the computation portion of the College Basic Skills Placement Test or MAT011. Students registered for MAT011 may not register concurrently for a mathematics course numbered MAT015 or higher. 4 lecture hours per week. 4 institutional credit hours.

What are Institutional Credits?

These are credits for developmental courses that provide the skills and confidence to succeed in college-level courses. Developmental courses are numbered 099 and below, they do not meet graduation requirements and will not transfer to four-year colleges.

MAT 015 Intro to Algebra – Part I

This course is designed for students with little or no previous experience with algebra. The course will cover signed numbers; basic exponents; the solution of equations; solving basic linear equations and inequalities; rational expressions; graphing of linear equations; systems of linear equations and verbal problems. Prerequisite: A grade of "C" or better in MAT 011 or satisfactory performance on the College Basic Skills Placement Test. 4 lecture hours per week. 4 institutional credit hours.

MAT 016 Intro to Algebra – Part II

This course is designed for students who have successfully completed Intro to Algebra (part 1) (MAT 015). This course will cover exponents, scientific notation, polynomials, factoring of trinomials, radicals, rational expressions, quadratics and the applications. Prerequisite: A grade of "C" or better in MAT 015. NOTE: Completing the MAT 015 – MAT 016 sequence is equivalent to completing MAT 022. 4 lecture hours per week. 4 institutional credit hours.

MAT 022 Introduction to Algebra

A course for students whose College Basic Skills Test scores indicate the need for preparatory work in algebra. The course includes solving equations, polynomials, factoring, rational equations, radical equations, systems of linear equations, graphing linear equations and quadratic equations. Prerequisite: A grade of "C" or better in MAT 011 or required score on Computation Placement Test AND required score on Algebra Placement Test. 4 lecture hours per week, 4 institutional credit hours.

▲ MAT 113 Math Applications

A course in the essentials of mathematics. Topics covered include algebra, linear equations, ratios, proportions, percents, word problems, critical thinking skills, sales taxes, property taxes, weekly wages, payroll deductions, depreciation, checking accounts, trade and cash discounts, markups, markdowns, and simple interest. This course is intended for students in the Associate in Applied Science degree programs. Prerequisites: A grade of "C" or better in MAT 015, or satisfactory performance on the College Basic Skills Placement Test. 3 lecture hours per week. 3 credit hours. NOTE: This course fulfills a general education requirement for AAS degree candidates only.

MAT 117 An Introduction to Mathematical Ideas

A course for students enrolled in Liberal Arts and General Education Programs. The course is not recommended for students who have completed Algebra II or higher. Prerequisites: A grade of "C" or better in MAT 016 or MAT 022, ENG 089, and ENG 099, or satisfactory performance on the College Basic Skills Placement Test. 3 lecture hours per week. 3 credit hours.

▲ MAT 119 Algebra

A course for students who have mastered basic algebra and need a deeper understanding of algebra before progressing to other credit mathematics courses. Topics include solving linear and quadratic equations and inequalities, absolute value equations and inequalities, graphs of linear and quadratic equations, equations of lines, systems of equations, introduction to functions, quadratic functions, polynomials functions, rational functions, radical functions, rational exponents and applications. Prerequisites: A grade of "C" or higher in MAT 016 or MAT 022, and ENG089, or satisfactory performance on the College Basic Skills Placement Test for Algebra. 4 lecture hours per week. 4 credit hours.

▲ MAT 125 Survey of Special Topics in Mathematics

This course is designed for liberal arts majors. Its objective is to give students an appreciation of the beauty and utility of mathematics, and to give them a better idea of what mathematics is and where it can be applied. Topics include Set Theory, Logic, Geometry, Operations Research & Game Theory, and Voting & Social Choice. To promote information literacy, all students in this course will be expected to complete a research project, which will demonstrate the connection between mathematics and the student's discipline or other interests. Course structure combines a mixture of projects, written assignments, group work, and class discussion. Prerequisites: A satisfactory score on the Mathematics portion of the College Basic Skills Test, or grade of "C" or better in MAT016 or MAT022, or successful completion of MAT117 or MAT119, or equivalent, or special permission by the department based on demonstrated proficiency. 4 lecture hours per week. 4 credit hours.

MAT 126 Mathematics for Management & Social Sciences

An introduction to linear systems with applications in business and management. Systems of linear equations, matrices, linear programming, the simplex method, and the transportation problem are covered. Prerequisites: ENG 089; a satisfactory score on the mathematics portion of the College Basic Skills Test, or grade of "C" or better in MAT 016 or MAT 022, or successful completion of MAT 117 or MAT 119 or equivalent. 3 lecture hours per week. 3 credit hours.

▲ MAT 127 Elementary Statistics

An elementary course in descriptive statistics and statistical inference. Measures of central tendencies, standard deviation, sampling, and probability distributions, including binomial, normal, and others. Practical problems involving correlation, linear regression, and hypothesis testing are included. Prerequisites: ENG 089; a satisfactory score on the mathematics portion of the College Basic Skills Test, or grade of "C" or better in MAT 016 or MAT 022, or successful completion of MAT 117 or MAT 119, or equivalent. 4 lecture hours per week. 4 credit hours.

▲ MAT 143 Elementary Mathematical Analysis I

An introduction to the concepts and techniques needed to proceed to more advanced mathematics and science courses, such as calculus. Topics include the solution of non-linear equations and inequalities; complex numbers, functions and their properties, circles; parabolas; polynomials functions and their graphs; rational functions and their graphs; inverse functions; synthetic division; the factor and remainder theorems; the Fundamental Theorem of Algebra; exponential and logarithmic functions; compound interest; logistic growth and decay models; exponential growth and decay; Newton's Law of Cooling. Prerequisites: ENG 089 and a grade of "C" or better in MAT 119 or satisfactory performance on the "College Level Mathematics Test". 4 lecture hours per week, 4 credit hours.

▲ MAT 144 Elementary Mathematical Analysis II

A continuation of Elementary Mathematical Analysis I, specifically intended for students continuing on to Calculus or studying Engineering Technology. Topics include right triangles and their applications; Linear and angular velocity; graphing trigonometric functions; inverse trigonometric functions; the sum, difference, double and half angle formulas; trigonometric equations; Law of Sines and Cosines; simple harmonic motion; polar coordinates; polar equations and graphs; DeMoivre's Theorem; vectors and conics. Prerequisites: ENG 089 and a grade of "C" or better in MAT 143 or a satisfactory score on the Mathematics Department's "College Level Mathematics Test". 4 lecture hours per week. 4 credit hours.

▲ MAT 146 Brief Calculus with Applications

An elementary course in the application of the fundamentals of calculus to the management, social, and life sciences. Topics include limits, continuity, differentiation, maxima, minima, integration of elementary functions, and applications. Prerequisites: A grade of "C" or better in ENG 089 and MAT 143 or equivalent. 3 lecture hours per week. 3 credit hours.

MAT 155 Elementary Mathematical Analysis

This course is a one semester Pre-Calculus course designed for students with sufficient mathematics background but need a review of material prior to taking Calculus. This course covers the advanced mathematics needed for Physics, Engineering and the sciences. Topics include the solution of non-linear equations and inequalities; complex numbers, functions and their properties, circles; parabolas; polynomials functions and their graphs; rational functions and their graphs; inverse functions; synthetic division; the factor and remainder theorems; the Fundamental Theorem of Algebra; exponential and logarithmic functions; compound interest; logarithms scales; exponential growth and decay; right triangles and their applications; Linear and angular velocity; graphing trigonometric functions; inverse trigonometric functions; the sum, difference, double and half angle formulas; trigonometric equations; Law of Sines and Cosines; simple harmonic motion; polar coordinates; polar equations and graphs; DeMoivre's Theorem; vectors and conics. Prerequisites: ENG 089 and satisfactory score on the College Level Math exam and permission of the Chair of the Mathematics department. 5 lecture hours per week and 5 credit hours.

▲ MAT 171 Unified Calculus I

Analytic geometry; limits and continuity; differentiation and integration of algebraic and transcendental functions; extrema; definite and indefinite integrals; applications to geometric and physical problems. Prerequisites: ENG 089 and a grade of "C" or better in MAT 144 or MAT 155 or permission of the Mathematics Department. 4 lecture hours per week. 4 credit hours.

▲ MAT 172 Unified Calculus II

A continuation of MAT 171. Techniques of integration, infinite series, conic sections, parametric equations, and polar coordinates. Prerequisites: ENG 089 and a grade of "C" or better in MAT 171. 4 lecture hours per week. 4 credit hours.

MAT 230 Women in Mathematics and Science

This course will focus on the contributions of women to the disciplines of mathematics and science, with both historical and contemporary references, building on students' knowledge base from other Women's/Gender Studies and General Education courses - especially Mathematics and Science. Discussions will emphasize the obstacles encountered in entering these fields as a result of gender issues, as well as the impact these women have had upon their fields and society as a whole. Current trends in education and employment for women in the fields of mathematics and science will be explored. Course structure will combine a mix of lectures, discussion, group work, films, and guest speakers. Prerequisite: A grade of "C" or better in MAT 119 or higher (advisement required). 3 lecture hours per week. 3 credits hours.

▲ MAT 246 Business Statistical Analysis

Application of statistical methods to business. An introduction to descriptive statistics, probability theory, sampling, estimation, hypothesis testing, analysis of frequencies, linear regression and correlation, time-series analysis and computer applications. Recommended as the foundation course in quantitative analysis as generally prescribed by AACSB member colleges for business administration students. Prerequisites: ENG 089, ENG 099, and a grade of "C" or better in MAT 143 or permission of the instructor. 4 lecture hours per week. 4 credit hours.

▲ MAT 265 Linear Algebra

Linear algebra over the real number system. Vector spaces, linear transformations, matrices, systems of linear equations, determinants, the Gram-Schmidt Orthogonalization Process, eigenvalues and eigenvectors. Prerequisites: ENG 089 and a grade of "C" or better in MAT 172 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

MAT 266 Survey of Modern Mathematics

This course provides a transition to higher mathematics and introduces the basic methods of proofs. Topics include number theory, elementary symbolic logic, set theory, basic methods of mathematical proofs, relations and functions, as well as the theory of mathematical thinking and writing. Prerequisite: Grade of "C" or better in MAT 171 or permission of the department chair. Corequisite: MAT 172. 3 lecture hours per week. 3 credit hours.

▲ MAT 267 Discrete Mathematics

Topics include sets, numbers, algorithms, logic, computer arithmetic, applied modern algebra, combinations, recursion principles, graph theory, trees, and digraphs. Prerequisites: ENG-089, and a grade of "C" or better in MAT 143 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

▲ MAT 271 Unified Calculus III

Additional topics in calculus and analytic geometry, including indeterminate forms, vector functions and calculus, functions of several variables, multiple integrals, partial derivatives, directional derivatives, divergence, curl, line integrals, and Green's Theorem. Prerequisites: ENG 089 and a grade of "C" or better in MAT 172 or permission of the instructor. 4 lecture hours per week. 4 credit hours.

▲ MAT 272 Differential Equations

Fundamental theorems on existence and uniqueness for solutions of ordinary differential equations; solution and applications of equations of the first order and first degree; linear equations of higher order; Laplace transforms; solution by series. Prerequisites: ENG 089 and a grade of "C" or better in MAT 271. 4 lecture hours per week. 4 credit hours.

MAT 280-299 Projects in Mathematics

Particular topics in mathematics are explored. Topics covered change from semester to semester. Examples are: Mathematics in Art and Music, The Development of Mathematics, Design of Experiments, Non-Euclidean Geometries, game theory, and Basic concepts of Modern Algebra. Prerequisite: Permission of the instructor. 3 lecture hours per week. 3 credit hours.

MET • Mechanical Engineering Technology

MET 104 Engineering Drawings

A study of the major elements of the engineering drawing. Topics include multiview (2-dimensional) sections and pictorial views, dimensioning practices, ANSI standard limits and fits, surface finishes and fasteners. Measuring instruments will be used to confirm sizes and tolerances. Geometric dimensioning and tolerances (GD&T) are covered with attention to tolerances of form, orientation, location, runout and position. Also included are applications of symbols, datums, material condition modifiers, bonus tolerances, and virtual conditions. Prerequisite: MET109 or permission of the coordinator. 3 lecture hours and 1 laboratory hour per week. 3 credit hours.

MET 106 Engineering Materials and Processes

A study of the basic materials used in engineering: their properties, manufacture, selection, and uses. Some materials will be studied and evaluated in laboratory experiments and demonstrations. Materials working machines and techniques (e.g., lathes, welding) are covered. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

MET 109 Computer-Aided Drafting

A project based introduction to 2-dimensional, computer-aided drafting using AutoCAD software. Topics include drawing entities, display control, editing techniques, layers and linetypes, hatching, dimensioning, scaling, library blocks, and attributes. Project drawings such as detailed machine parts, surveyed plot plans, and architectural floor plans will require application of model and paper space, templates, viewports and external references. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

MET 112 Mechanics-Statics

A study of the basic principles of static equilibrium of forces, including the use of free-body diagrams, the location of centroids, and the calculation of moment of inertia. Practical problems involving simple machines, trusses, and frames are analyzed. Calculations use units from both the English Gravitational System and the International System (Metric). Prerequisite: MAT 143. 3 lecture hours per week. 3 credit hours.

MET 213 3-D Solid Modeling

This course is a fundamental study of the engineering drawing using computer-aided engineering software, (Autodesk Inventor), to construct solid and parametric modeling drawings. Topics covered include 3-D solid modeling, 2-D multi-view drawings, parametric dimensioning, section views, auxiliary views, and assembly modeling. CAD projects include 3-D solid model drawings and 2-D orthographic drawings, which address topics such as geometric constraints, feature interactions, parametric dimensions, and associative functionality. 1 lecture hour and 3 laboratory hours per week. 2 credit hours.

MET 219 CAD/CAM

This course introduces Computer-Aided Manufacturing using Mastercam software. The basics of Numerical Control (NC) programming are covered including G and M codes, absolute and incremental positioning and canned cycles. Part geometry is created and edited using Mastercam software. Job setups are prepared, tool path is specified and a tool library is created. Part machining is verified graphically and NC code is post processed and downloaded to CNC machine tools to produce actual parts. Prerequisites: MET 106 and MET 109. 2 lecture hours and 3 laboratory hours per week. 3 credit hours.

MET 285 Special Topics in Mechanical Engineering Technology

A topic of current interest in Mechanical Engineering Technology, which meets the needs and interests of the student, arranged in advance with program coordinator approval. Student will submit a proposal conforming to Union County College syllabus format outlining course content, objectives and learning outcomes. Prerequisite: Permission of the Coordinator. Credit by arrangement.

MET 295 Independent Study

A special research or development project or a course not currently offered in the Mechanical Engineering Technology program. Reserved for the advanced student with individual needs. Credit by arrangement.

MTR • Meteorology

MTR 101 Introduction to Meteorology

This course provides a survey of the fundamentals of meteorology, including the history, basic physical laws, local and global processes, instrumentation used, and general forecasting technology. Current or recent significant weather events will be included in lectures and labs. Through these elements, students will develop a greater understanding and appreciation of the behavior of the atmosphere. Prerequisites: ENG088 and MAT011. 3 lecture and 3 laboratory hours per week. 4 credits.

NMTM • Nuclear Medicine

NMTM 101 Introduction to Nuclear Medicine for Radiographers

Introduces radiographers to nuclear medicine instrumentation, procedures, and radiopharmacy; radiation protection and regulations specific to nuclear medicine; reviews biomedical ethics and law and health care safety; discusses the basics of effective communication; covers the basic processes involved in human pathology. 20 lecture and laboratory contact hours during first 3 weeks of first semester. ARRT Registration or equivalent license required. Corequisite: CLPN 901. 1 lecture hour per week. 1 credit hour.

NMTM 102 Introduction to Nuclear Medicine for Non-Radiographers

Introduces non-radiographers to nuclear medicine instrumentation, procedures and radiopharmacy; teaches biomedical ethics and law and health care safety; discusses the basics of effective communication; teaches patient care as it applies to nuclear medicine; covers the basic processes involved in human pathology. Corequisite: CLPN 901. 3 lecture hours per week. 3 credit hours.

NMTM 110 Nuclear Medicine Physics

Covers the nature of radiation, radioactive decay, interactions of radiation with matter, and production of radionuclides. Corequisite: PHY 125 or PHY 101 3 lecture hours per week. 3 credit hours.

NMTM 120 Nuclear Medicine Procedures I

Includes a review of the anatomy and physiology of systems associated with the procedures covered. Teaches pathology and the nuclear medicine procedures used to evaluate a body system or disease state. Laboratory sessions are required with this course. Corequisite: CLPN 901. 4 lecture hours per week. 4 credit hours.

NMTM 121 Nuclear Medicine Procedures II

Includes a review of the anatomy and physiology of systems associated with the procedures covered. Teaches pathology, and the nuclear medicine procedures used to evaluate a body system or disease state. Prerequisite: NMTM 120. Corequisite: CLPN 902. 4 lecture hours per week. 4 credit hours.

NMTM 130 Nuclear Medicine Instrumentation I

Covers the components, function, operation, and quality assurance procedures for nuclear medicine imaging equipment, including planar, SPECT, and multicrystal cameras, and 511 keV imaging units. Also includes nuclear medicine computers and image recording devices. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

NMTM 131 Nuclear Medicine Instrumentation II

Covers the components, function, operation, and quality assurance procedures for non-imaging nuclear medicine equipment, including survey meters, dose calibrators, well counters, and uptake probes. Prerequisite: NMTM 130. 3 lecture hours per week. 3 credit hours.

NMTM 135 Radiation Biology and Radiation Protection

Teaches radiation biology, radiation protection and regulations specific to nuclear medicine. 3 lecture hours per week. 3 credit hours.

NMTM 140 Radiochemistry and Radiopharmacy

Covers all aspects of radiopharmacy including kit and dose preparation, biorouting, quality control, interfering agents, chemical composition, and radiation safety. Prerequisite: CHE 105 or CHE 111. 3 lecture hours per week, 2 lab hours per week. 4 credit hours.

NMTM 201 Health Care Today

This course is designed to create a broad overview of the health care industry today. It will introduce the student to delivery of healthcare, economics, insurance programs, administrative roles, leadership, management, budget and planning, internal politics, capital allocation, operating budgets, government roles and employee relations. Web-enhanced course. 2 credit hours.

NMTM 202 Electrophysiology

Teaches preparation of patient for ECG and interpretation of normal and abnormal ECG's. 2 lecture hours per week for 1 lecture hour per week 1 credit hour.

NMTM 222 Nuclear Medicine Procedures III

Includes a review of the anatomy and physiology of systems covered. Teaches pathology, and the nuclear medicine procedures used to evaluate a body system or disease state. Prerequisite: NMTM 121 Corequisite CLPN 903. 2 lecture hours per week. 2 credit hours.

NMTM 240 Nuclear Medicine Seminar I

Includes studies in interpersonal communications, problem solving, biomedical ethics and medical law. Only offered third semester. Prerequisites: NMTM 120, NMTM 121, NMTM 130, NMTM 131, NMTM 140. 1 lecture hour per week. 1 credit hour.

NMTM 241 Nuclear Medicine Seminar II

Includes clinical correlations of studies with various disease states, case study presentations, and reviews of research and technical literature. Prerequisite: NMTM 240. 2 lecture hours per week. 2 credit hours.

NURE • Nursing, Trinitas

NURE 130 Nursing Trends and Concepts

This course introduces the student to the profession of nursing, its evolution, and current trends and issues. The role of the nurse within the health care delivery system is incorporated throughout the course. Elements of normal nutrition are introduced. Nursing process is presented as the method of formulating decisions and providing care in nurse-client interactions. The relationship of critical thinking to clinical judgment is explored. An overview of nursing theories and health assessment is presented. A review of basic math principles is conducted with later emphasis on dosage calculation for medication administration. Self-study chapters of medical terminology are also introduced throughout the course. The theory base provided in NURE 130 will be built upon and applied in subsequent nursing courses. 4 hours theory per week; 4 credits; 15 week course. Prerequisites: Completion of all developmental courses, and GPA of 2.5. ADM 110 also required as of January 2014. Co-requisites BIO 105, CHE 105 or CHE 113, ENG 101.

NURE 131 Nursing I

Nursing 131 is an introductory course designed to establish the foundations of knowledge, attitudes and psychomotor skills necessary for beginning practice. The role of the nurse in the multi-cultural health care delivery system will focus on nursing care for selected health problems. Commonly seen health deviations within the adult population will be introduced. Basic health assessment skills will be introduced. Students participate in clinical experiences in the Learning/Simulation Center and acute and long-term care settings for the application of fundamental nursing principles. 4 hours theory, 12 hours clinical per week; 8 credits; 15 week course; GPA 2.5. Prerequisites: NURE 130, BIO 105, ENG 101, CHE 105 (or CHE 113); Co-requisites: BIO 106, PSY 101.

NURE 132 Nursing II

Nursing 132 builds upon the foundation of Nursing 130/131. It explores the roles of the professional nurse as a member of the health care team utilizing critical thinking and problem solving skills with expansion of health assessment techniques while caring for adults experiencing acute/chronic disruptions of existing patterns of normalcy. The student will be utilizing the nursing process, developing and refining clinical skills as well as establishing priorities in predictable health care situations. Learning experiences are provided in the classroom, Learning/Simulation Center and in multi-cultural adult medical/surgical facilities and the community. 4 hours theory, 12 hours clinical per week. 8 credits; 15 week course. Prerequisites: NURE 131, BIO 106, PSY 101; GPA 2.5; Co-requisites BIO 108, and PSY 204 or PSY 205.

NURE 211 Bridge-to-Professional Nursing Core Concepts

This transition course introduces the LPN-to-RN student to the framework and concepts of the Trinitas School of Nursing program. Role socialization, communication principles, nursing process, concept care mapping, teaching/learning principles, critical thinking, legal-ethical standards/issues and the role of cultural competence in contemporary nursing will be explored. Pharmacological concepts will be discussed and a review of medication administration with emphasis on drug/IV calculations will be conducted and regularly reinforced throughout the course. 3 theory hours/week; 3 credits; 15 week course. Prerequisites: Proof of current LPN license; all buy-back credits; BIO 105, 106, 108; CHE 105 or 113/114; ENG 101,102; PSY 101, 204 ; SOC 101; Humanities 6 credits, PSY 204 or PSY 205. ADM 110 also required as of September 2014. GPA 2.5; Co-requisite NURE 212.

NURE 212 Health And Physical Assessment

This course builds upon the foundation of LPN education and introduces the student to holistic health assessment and physical examination. The course aims to develop the student's abilities in gathering data to determine client's health status, practices and goals as influenced by his/her own culture. Starting with assessment of normal health parameters, the student will learn to differentiate between what is within and out of acceptable limits. Within the context of care of the perioperative or gerontological client, the student will learn and use physical assessment techniques of inspection, palpation, percussion and auscultation as well as other forms of data collection, such as, client interview, chart review, and analysis of laboratory and diagnostic results. The roles of the RN and the LPN in physical assessment/data collection will be discussed. The student will practice physical assessment skills and participate in laboratory experiences using scenarios involving a patient simulator in the Learning/ Simulation Center and in the application of concepts in acute health care settings. Students will also review and perform basic clinical nursing skills. 2 theory hours, 6 clinical hours per week; 4 credits; 15 week course. Prerequisites: Same as NURE 211; Co-requisite NURE 211.

NURE 231 Nursing III

Nursing 231 builds upon the foundation of NURE 130, 131, and 132. It explores the nurse's role in caring for the pediatric client and childbearing family. In addition, it explores the clients' situations with acute and chronic disruptions of health, as well as complex health deviations which may be life threatening. Clinical experiences are provided in a variety of structured multi cultural health care settings with a parent-child focus. Other learning experiences occur in the classroom with assigned activities in the Learning Simulation Center and the computer lab. 4 hours theory, 12 hours clinical per week. 8 credits. Prerequisites: NURE 132, BIO 108, PSY 204 or PSY 205; GPA 2.5. Co-requisites: ENG 102, SOC 101.

NURE 232 Nursing IV

NURE 232 builds upon the foundation of NURE 130, 131, 132, & 231. It explores the nurses's role in caring for adult clients experiencing complex medical-surgical health alterations that are potentially life threatening and adult clients experiencing acute and chronic psychiatric mental health alterations. Learning experiences are provided in the classroom, Learning Simulation Center and in multicultural adult medical/surgical and psychiatric/mental health facilities. 5 hours theory, 15 hours clinical per week. 10 credits. Prerequisites: NURE 231, SOC 101, ENG 102, CHE 114 if CHE 113 was taken, GPA 2.5. All buy-back credits. Co-requisites: (2) Humanities Electives.

NURE 250 Nursing Care of the Client with a Medical Surgical Health Deviation

This course builds upon the foundation of NURE 211, and NURE 212. Within the context of the nursing process, the student will be refining and developing clinical skills while caring for clients experiencing acute/chronic disruptions in normalcy with emphasis on critical thinking, physical assessment and teaching/learning principles. Clinical experiences are provided in a variety of structured, multi cultural acute/chronic health care settings. Other learning experiences will occur in the classroom with assigned activities in the computer lab and Learning/Simulation Center. 3 hours theory, 9 clinical hours per week. 6 credits; 15 week course. Prerequisites: NURE 211/212; GPA 2.5.

NURE 260 Nursing Care of Children and their Families

This course builds upon the foundation of NURE 250 and LPN education. It explores the role of the professional registered nurse in caring for the pediatric client. Emphasis is placed on pediatric normalcy in a child experiencing an acute or chronic health deviation from infancy through adolescence. A significant aspect of this course is an understanding of the concepts of atraumatic care, family advocacy, and an interdisciplinary approach to health care. The student will continue to utilize and modify the nursing process and teaching/learning strategies while refining critical thinking and clinical skills. Clinical experiences are provided in a variety of structured, multi cultural pediatric health care settings. Other learning experiences will occur in the classroom, the Learning/Simulation Center, and assigned computer assisted instruction. 3 hours theory, 9 hours clinical per week; 3 credits; 7 week course. Prerequisites: NURE 250; GPA. 2.5.

NURE 270 Nursing Care of Women and the Childbearing Family

This course builds upon the foundation of NURE 250 and LPN education. It explores the role of the professional registered nurse as a member of a multi disciplinary team in caring for women and the childbearing family. Emphasis is placed on health education and community resources in relation to women's health and the childbearing cycle. Deviations from the normal physiologic and psychosocial development are explored. The student will continue to utilize and modify the nursing process and teaching/learning strategies while refining critical thinking and clinical skills. Clinical experiences are provided in a variety of structured, multi cultural health care settings. Other learning experiences will occur in the classroom, with assigned activities in the Learning/ Simulation Center and the computer lab. 3 theory hours, 9 clinical hours per week. 3 credits. 7 week course. Prerequisites: NURE 250; GPA 2.5.

NURE 280 Nursing Care of the Client with Mental Illness

This course builds upon the foundation of NURE 250 and LPN education. It explores the role of the Professional Registered Nurse as a member of a multidisciplinary health care team in caring for clients with mental illness. Emphasis is placed on mental health education and community resources available to the client and their families. The student will continue to utilize and modify the nursing process and teaching/learning strategies, while refining critical thinking and clinical skills. Clinical experiences are provided in a variety of structured, multicultural, psychiatric/mental health care settings. Other learning experiences will occur in the classroom, with assigned activities in the Learning/ Simulation Center, and the computer laboratory. 3 hours theory, 9 hours clinical per week; 3 credits; 7 week course. Prerequisites: Completion of NURE 260, 270; GPA 2.5.

NURE 290 Nursing Care Of The Client With Complex Multi-System Medical/Surgical Health Deviation

NURE 290 builds upon the foundations of NURE 260, NURE 270, NURE 280 and LPN education. It explores the role of the professional registered nurse as a member of a multi-disciplinary team in caring for clients with complex multi-system medical/surgical health deviations. Emphasis is placed on organizing, prioritizing, and evaluating nursing care for clients by assisting them with self-care deficits. The student will continue to utilize and modify the nursing process and teaching/learning strategies while refining critical thinking in clinical health care settings. Other learning experiences will occur in the classroom, with assigned activities in the Learning/Simulation Center, and the computer lab. 3hours theory, 9 hours clinical per week; 3 credits. 7 week course. Prerequisites: NURE 280; Co-requisite NURE 291; GPA 2.5.

NURE 291 Leadership and Management Seminar

NURE 291 builds upon the foundation of NURE 211, 212, 250, 260, 270, 280, and LPN education. It is an introduction to the theory and practice of nursing leadership and management. Emphasis is placed on thinking critically, communicating effectively, handling conflict, delegating successfully, building teams, controlling resources, and improving quality to act in the role of a highly successful nurse. The role transition from a licensed practical nurse to a registered nurse will also be explored. 2 hours theory per week; 1 credit; 7 week course. Prerequisites: NURE 280; Co-requisite NURE 290; GPA 2.5.

NURM • Nursing, Muhlenberg

NURM 100 Mathematics for Pharmacology

This course is primarily designed to prepare students with the definitive mathematical concepts necessary to ensure safe administration of medications. The metric and household systems are reviewed and applied. In addition to mathematical concepts, correlation of pharmacological theory to nursing practice will be emphasized. Blended on line course with 4 classroom meetings. Corequisites: BIO 105, CHE 105, ENG 101, NURM 119 1 credit hour.

NURM 119 Introduction to Nursing

(To be taken in the semester immediately prior to NURM 121) This course is designed to provide the student nurse with the knowledge necessary for registered nurse practice. The role of the accountable, responsible registered nurse is explored through such topics as the profession of nursing, its historical perspectives and Orem's Self Care Theory. Emphasis is placed on the nursing process, evidence-based practice and the critical thinking necessary for practice. Integrated throughout the course are concepts and issues that relate to nursing practice: the nurse patient relationship, effective communication, self care and wellness, culture, teaching and learning, nutrition and current ethical and legal considerations. The theory base provided for in this course will be built upon and applied in subsequent nursing courses. Corequisites: BIO 105, CHE 105, ENG 101, NURM 100 3 credit hours

NURM 120 LPN Transition Course

NURM 120 serves as a bridge course designed to facilitate the transition of the student from the role of the LPN to the role of a student preparing for RN practice. The course will introduce the student to the philosophy, objectives, and conceptual framework of the JFK Muhlenberg Harold B. and Dorothy A. Snyder School of Nursing program. The nursing process will be introduced as it relates to evidence-based decision making when planning care for adults with selected basic care need/self-care deficits. Nursing theory, nutrition, pharmacology, psychosocial, ethical and legal concepts related to nursing practice will be examined. The role of the registered nurse as a member of the nursing and health teams will be explored. Laboratory experiences will be provided in adult medical-surgical clinical and classroom facilities. Note: Course is normally offered in a 3-week format. Prerequisites: BIO 106, BIO 108, PSY 101, PSY 205, ENG 102, CHE 105 or CHE 113, and SOC 101. 2 lecture and 2 laboratory hours per week. 4 credit hours.

NURM 121 Nursing I

This course is designed to establish the foundation of knowledge, attitude and perceptual motor skills necessary for registered nurse practice. The role of the accountable, responsible registered nurse as it relates to the delivery of evidence-based care to patients experiencing actual/potential, commonly occurring simple basic need/health deviations is explored. Within the context of the nursing process, the assessment phase is stressed. The student nurse gains experiences in the systematic data collection through the use of the nursing history and physical examination. Emphasis is placed on the application of beginning effective communication, self care and wellness, current legal, ethical and social problems and teaching and learning principles. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical units, nursing homes and any other clinical sites to meet the course objectives. Prerequisites: BIO 105, CHE 105, ENG 101, NURM 100, NURM 119. Corequisites: BIO 106, PSY 101. 4 lecture hours and 12 laboratory hours per week. 8 credit hours.

NURM 122 Nursing II

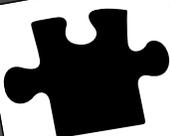
This course explores the role of the accountable, responsible registered nurse as it relates to the delivery of evidence-based care to the childbearing and child-rearing family and patients experiencing actual/potential, commonly occurring, increasing to the complex health deviations. Within the context of the nursing process, the diagnostic phase is stressed. The student nurse gains experiences in analyzing and interpreting patient data for an accurate nursing diagnosis in the clinical setting. Emphasis is placed on the application of effective communication, self care and wellness, current legal, ethical and social problems and teaching/learning principles. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical, obstetrical, pediatric units, community agencies and any other clinical sites to meet the course objectives. Prerequisites: NURM 121 and its corequisites. Corequisites: BIO 108, PSY 205. 4 lecture hours and 12 laboratory hours per week. 8 credit hours

NURM 141 Accelerated Nursing – Spring

Nursing M 141 is a comprehensive course designed to establish a sound foundation of knowledge, attitudes and perceptual motor skills necessary for accountable, registered nurse practice. The role of the accountable, responsible registered nurse as it relates to the delivery of evidence-based care to patients experiencing actual/potential, commonly occurring simple basic need/health deviation is explored. Theoretical nursing concepts and related skills with emphasis on self-care, developmental requisites and basic needs of Man form the organizational framework of the course. The nursing process, ethical/legal/historical constructs, communication techniques, teaching-learning principles and nutritional, pathophysiological, pharmacological and psycho-social concepts are applied to meeting the nursing needs of patients experiencing commonly occurring health problems. Prerequisites: BIO 106, BIO 108, CHE 105, NURM 100, PSY 101 and PSY 205, ENG 102, SOC 101, 2 Humanities electives. 6.5 lecture hours and 19.5 laboratory hours per week. 13 credit hours.

NURM 221 Nursing III

This course explores the role of the accountable, responsible registered nurse as it relates to the delivery of evidence-based care to patients experiencing actual/potential, commonly occurring, complex health deviations. Within the context of the nursing process, the planning phase is stressed. The student nurse gains experiences in setting realistic patient outcomes and personalizing nursing interventions for two patients in the clinical setting. Emphasis is placed on developing therapeutic communication skills, beginning management skills, current legal, ethical and social problems and teaching-learning principles which assist the patient in overcoming self-care deficits. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical units, psychiatric facilities, community agencies, and other clinical sites to meet the course objectives. Prerequisites: NURM 122 and its corequisites. Corequisites: SOC 101, ENG 102. 4.5 lecture hours and 13.5 laboratory hours per week. 9 credit hours

 **Is a 4-year degree in your future?**
An Associate of Arts (A.A.) or Associate of Science (A.S.) degree from Union County College is fully transferable as the first two years of a baccalaureate degree program at any New Jersey public four-year institution under the Comprehensive State-Wide Transfer Agreement.

NURM 222 Nursing IV

This course emphasizes the role of the accountable, responsible registered nurse as it relates to the delivery of evidence-based care to patients experiencing actual/potential, commonly occurring multiple complex deviations. Within the context of the nursing process, the evaluation phase is stressed. The student nurse gains experience in organizing, prioritizing and evaluating care for a small group of patients in the clinical setting. Emphasis is placed on the application of increasing therapeutic communication skills, management and leadership skills, current legal, ethical and social problems and teaching/learning principles which assist the patient in overcoming self-care deficits. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical and critical care units, community agencies and any other clinical sites to meet the course objectives. Prerequisites: NURM 221 and its corequisites. Corequisites: 2 Humanities electives. 4.5 lecture hours and 13.5 laboratory hours per week. 9 credit hours.

NURM 241 Accelerated Nursing – Summer

Nursing M 241 explores the role of the accountable, registered nurse as it relates to the delivery of evidence-based care to the childbearing and childrearing family and patients experiencing commonly occurring psychological and psycho-social deviations. Ethical/legal, nutritional, pharmacological, developmental, psychological and sociological concepts related to meeting the nursing needs of patients are integrated. Emphasis is placed on teaching/learning principles and the development of therapeutic communication techniques within the nurse-patient relationship. Laboratory experiences are provided in parent/child inpatient and community settings and also at behavioral and adult health care facilities. This is a condensed summer course. Prerequisites: NURM 141. 6.8 lecture hours and 20.6 laboratory hours per week. 11 credit hours

NURM 242 Accelerated Nursing – Fall

Nursing 242 explores the role of the accountable, responsible registered nurse as it relates to the delivery of evidence-based care to patients experiencing actual/potential, commonly occurring, multiple complex health deviations. Within the context of the nursing process, the nursing student gains experience in organizing, prioritizing and evaluating care for small groups of patients by assisting them to overcome those deficits which interfere with self-care. Nutritional, pharmacological, psychological and sociological needs of the patient as well as ethical/legal issues related to the care of chronically ill patients are discussed. Emphasis is also placed on increasing communication skills and implementing teaching-learning principles. Experiences are provided in a variety of structured health care settings such as the acute care units and medical-surgical units. Prerequisite: NURM 241. 6.5 lecture hours and 19.5 laboratory hours per week. 13 credit hours.

OCE • Oceanography

OCE 101 Introduction to Marine Sciences

A field-oriented lower division undergraduate course covering the principal disciplines in the marine sciences. The course is designed to help the student evaluate his/her interest in the marine science. No prerequisites. 4 credit hours.

OCE 103 Introduction to Marine Biology

A field and laboratory-oriented undergraduate course covering the biology and characteristics of marine plants and animals. The course is designed to provide the student with instruction and experience in collecting and identifying examples of local marine flora and fauna. No prerequisites. 4 credit hours.

OCE 201 Oceanography

A study of the physical and chemical properties of sea water, oceanic circulation, waves and tides, and estuarine and shoreline processes. Prerequisite: Advanced standing in the physical or biological sciences or permission of the instructor. 4 credit hours.

PED • Physical Education

PED 101 Concepts of Adult Fitness

Through a series of lectures and practicums, various aspects of health and physical fitness are explored. In addition to mastering selected concepts concerning health and physical fitness, each student develops, through self-testing practicums, his/her own physical fitness profile and program. 2 lecture hours per week. 2 credit hours.

PED 107 Decisions for Wellness

BIO 107 without the laboratory component. This course will not fulfill a college laboratory science requirement. Permission of Department Chair required for registration. 3 lecture hours per week. 3 credit hours.

PED 110 Beginning Golf

Beginning golf covers the basic techniques of the game of golf. Also covered in the course are the history of the game, the rules and etiquette of golf, and basic golf equipment. 1 lecture hour and 1 laboratory/demonstration hour per week. 1 credit hour.

PED 290-299 Independent Study in Fitness and Wellness

One-semester courses designed to cover an approved in-depth exploration of some aspects of health, fitness, and/or wellness. The course is intended to provide the students with an opportunity to expand his or her knowledge in one area beyond that which is presently offered in current health, fitness, and/or wellness courses. This course will not fulfill a science requirement and requires the recommendation and permission of the Department Chair and instructor as a prerequisite for registration. It is recommended that the student have at least one semester of college Biology, PED 101, or a college-level health course. May be taken for 1, 2, 3 or 4 credit hours.

PED 296 Independent Study/Advanced Golf

This independent studies course will give the student who has completed PED 110 an opportunity to continue the study of golf and to become knowledgeable about the rules and playing strategies of golf. Two books dealing with the fundamentals and psychology of the sport of golf will be read and discussed. Students will be expected to play a minimum of five rounds of golf and to provide written critiques of each round. Prerequisite: PED 110 or permission of instructor. 3 credit hours.

PHI • Philosophy

▲ PHI 105 Introduction to Logical Thinking

The understanding and development of the fundamental principles of disciplined thinking, language and thought, patterns of argument and fallacies, reasoning and human life. Prerequisites: ENG 088, ENG 098 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ PHI 205 Introduction to Philosophy

This course is an introduction to philosophy: what philosophy is, what its objectives are and what its major areas of focus and its methods are. The course is organized around a study of major problems and pertinent questions in philosophy, including the nature of being, of the world, of the person, of knowing, and of human conduct. These philosophical problems and related issues are explored through selected readings in philosophy that introduce the student to major philosophers within the Western philosophical tradition. Corequisite: ENG 101 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ PHI 206 History of Ancient and Medieval Philosophy

A study of the major figures and movements in Western thought from the early Greeks to the end of the Middle Ages. The central part of the course is devoted to Plato, Aristotle, Augustine, and Thomas Aquinas. Selected works are read and analyzed. Prerequisites: ENG 089, ENG 099, HIS 101-102 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ PHI 207 History of Modern Philosophy

A study of the major figures and movements in Western thought from 1600 to the present. The course focuses on the philosophies of Hobbes, Descartes, Hume, and Kant. Selected works are read and analyzed. Prerequisites: ENG 089, ENG 099, HIS 101-102 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

PHI 209 Social Justice

An analysis of some of the major theories of social justice, focusing on philosophical assumptions and practical applications. Special consideration is given to problems, such as political obligation and individual autonomy, the distribution of social goods, sovereignty and political disobedience, the nature of law, and justifications of punishment. Prerequisites: ENG 089, ENG 099 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ PHI 210 Ethics

A focus on both ethical theory and applied ethics as classical and contemporary ethical theories are examined and a variety of ethical issues and dilemmas are considered. This course can serve as either a general elective or a Humanities elective. Prerequisite: ENG 101 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

▲ PHI 212 Logic and Critical Thinking

An exploration of the elements of sound reasoning, including the nature of arguments, both deductive and inductive, an examination of informal and formal fallacies, and of the nature of various forms of reasoning. Examples of fallacious reasoning will be drawn from politics, advertising, business, morality, and religion. This course is designed to enhance students' critical thinking and promote success in academic inquiry across the disciplines. Prerequisite: ENG 101 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

PHY • Physics

▲ PHY 101 General Physics I

Basic concepts of measurement; composition and resolution of forces; force systems; kinematics of a particle; dynamics of a particle; systems of forces; rotational motion; work, energy and power; momentum; elastic properties of solids and liquids; mechanics of fluids. Prerequisites: ENG 088, MAT 143. Corequisite: PHYL 101. 3 lecture hours per week. 3 credit hours.

▲ PHYL 101 General Physics I Laboratory

Physics laboratory to accompany PHY 101. Corequisite: PHY 101. 3 laboratory hours per week. 1 credit hour.

▲ PHY 102 General Physics II

Basic concepts of Temperature and heat; thermal expansion; heat transfer; ideal gas laws; thermodynamics; wave motion; stationary waves; sound waves; acoustics; light and illumination; reflection; refraction; thin lenses; optical instruments; physical optics; electrostatics; induced E.M.F.; inductance; alternating current series circuits. Prerequisite: PHY101. Corequisite: PHYL 102. 3 lecture hours per week. 3 credit hours.

▲ PHYL 102 General Physics II Laboratory

Physics laboratory to accompany PHY 102. Corequisite: PHY 102. 3 laboratory hours per week. 1 credit hour.

▲ PHY 111 Mechanics

Study of classical mechanics for engineering students, including kinematics, projectile and circular motion, Newton's laws of motion, friction, work and energy, impulse and momentum, conservation of energy and momentum, static equilibrium, and rotational dynamics. Prerequisites: EGG 105, and MAT 171. Corequisite: PHYL 111. 3 lecture hours per week. 3 credit hours.

▲ PHYL 111 Mechanics Laboratory

Physics laboratory to accompany PHY 111. Corequisite: PHY 111. 3 laboratory hours per week. 1 credit hour.

▲ PHY 125 Elements of Physics

Fundamental ideas and concepts of physics for students in health programs: measurements and units, motion of bodies, forces, work and energy, momentum, temperature and heat, waves, optics, electricity and magnetism, radiation, atomic and nuclear physics. Prerequisites: ENG 088, MAT 119. Corequisite: PHYL 125. 3 lecture hours per week. 3 credit hours.

▲ PHYL 125 Elements of Physics Laboratory

Physics laboratory to accompany PHY 125. Corequisite: PHY 125. 2 laboratory hours per week. 1 credit hour.

▲ PHY 201 Electricity and Magnetism

A study of electrostatics, electric and magnetic fields, electromagnetism, electric and magnetic circuits, induced electromotive forces, fundamental electrical measurements, circuits containing inductance and capacitance, basic electronics. Prerequisite: PHY 111. Corequisites: MAT 271 and PHYL 201. 3 lecture hours per week. 3 credit hours.

▲ PHYL 201 Electricity and Magnetism Laboratory

Physics laboratory to accompany PHY 201. Corequisite: PHY 201. 3 laboratory hours per week. 1 credit hour.

PHY 202 Optics and Modern Physics

A study of geometrical and physical optics, the ideas of modern physics, radiant energy, relativistic mass-energy, electrons, photons, their interactions, atomic structure, nuclear structure, and reactions. Prerequisite: PHY 201. Co-requisite: PHYL 202. 3 lecture hours per week. 3 credit hours.

PHYL 202 Optics and Modern Physics Laboratory

Physics laboratory to accompany PHY 202. Co-requisite: PHY 202. 3 laboratory hours per week. 1 credit hour.

PMD • Paramedic

PMD 106 Paramedic I

This course will focus on an introduction to New Jersey EMS structure. Students will gain knowledge in the roles, responsibilities and regulation governing this profession. There will be a review of human structure and function. An extensive review of the Cardiac, Respiratory, Neurological and Renal systems will offer a foundation for assessment skills, differential diagnosis skills and understanding action potential of pharmaceutical agents. Students will understand pharmacology, drug dosaging, calculation and administration. Students will learn effective techniques for patient assessment and clinical decision making skills. Prerequisites: Please refer to certificate program requirements and MAT 022. Corequisite: PMD 107. 7 lecture hours per week. 7 credit hours.

PMD 107 Paramedic Procedures I

This course is intended to provide students with the ability to master the necessary clinical skills mandated by the U.S. DOT paramedic curriculum through hands-on learning and demonstration. The structure of this course will be through skills station rotations where students are in groups of four or less to each instructor. An overview of the skill and specific techniques for successful completion will be taught or reviewed. Students will be encouraged to decide treatment based upon clinical scenarios given by the instructor. Prerequisites: Please refer to certificate program requirements and MAT 022. Corequisite: PMD 106. 6 lecture hours per week. 6 credit hours.

PMD 108 Paramedic II

Students will gain intense knowledge on electrocardiology interpretation (EKG) and treatments. Upon completion of this course students will correctly treat, document and relay a detailed report to medical control. Students will describe the indications, contraindications and side effects of all MICU regulated procedures and 55 pharmaceutical agents carried by paramedics. Students will understand NJ State Standing Orders for adult and pediatric patients. Students will be able to identify patterns in assessments based upon specific medical emergencies. This course will prepare students for a safe approach to special situations involving harmful agents. Students will gain understanding in age specific education including geriatric and pediatrics. At the conclusion of this course, students will successfully complete both a written and practical final evaluation. Prerequisites: PMD 106 and PMD 107 with a grade of "C" or better. Corequisite: PMD 109. 7 lecture hours per week for 22 weeks. 10 credit hours.

PMD 109 Paramedic Procedures II

This course is intended to provide students with the ability to master the necessary clinical skills mandated by the U.S. DOT paramedic curriculum. The structure of this course will be through skill station rotations where students are in groups of four or less to each instructor. Students will be encouraged to decide treatment based upon clinical scenarios given by the instructor. Paramedic Procedures II reinforces the lecture material pertaining to clinical skills and clinical decision-making. This course will utilize assessment tools of skill proficiency set forth by the U.S. DOT national curriculum. Prerequisites: PMD 106 and PMD 107 with a grade of "C" or better. Corequisite: PMD 108. 6 lecture hours per week for 22 weeks. 9 credit hours.

PMD 201 Paramedic Clinical I

This course will provide the educational clinical experience required to prepare the student to achieve licensure as a Paramedic. The clinical rotations are meant to apply learned theory and patient care skills while under the direct observation and guidance of a preceptor. Clinical rotations will adhere to the NJ Administrative Code 8:40A; in hospital category I and category II criteria. The majority of the course hours will be completed at a hospital clinical site. In addition this course adheres to the Department of Transportation National Education Standards for Paramedic. Prerequisites: Acceptance in the Paramedic Program, Paramedic Program Director approval and successful completion of PMD 106 and PMD 107. Clinical Hours 24 per week, 20 lecture hours near the conclusion of the course. 9 credit hours.

PMD 205 Paramedic Field Internship

This course will provide the educational field internship experience required to prepare the student to achieve licensure as a Paramedic. The field internship allows the paramedic student to apply learned theory and clinical skills while under the direct observation and guidance of a preceptor. The majority of the course hours will be completed at a New Jersey state licensed paramedic unit. Objectives of this course will adhere to the NJ Administrative Code 8:40A; Field Internship category III. In addition this course adheres to the Department of Transportation National Education Standards for Paramedic. Students will have a terminal competency assessment conducted by the Program Director and Medical Director at the conclusion of this course. 9 credit hours. Prerequisites: Acceptance in the PMDC program, Paramedic Program Director approval and successful completion of PMD 106 and PMD 107, PMD 201. Clinical Hours 24 per week, 20 lecture hours near the conclusion of the course.

PNU • Practical Nursing

PNU 190 Nursing Concepts

This course introduces the Practical Nursing student to the profession of nursing and the role of the LPN. Trends in nursing practice and the health care delivery system will be discussed. The integration of self-care and critical thinking principles into the nursing process will be a key focus. Fundamental nursing concepts and practices for health promotion, including communication, client teaching, assessment, nutritional support, and general pharmacological and safety principles, will be presented. Students will practice and demonstrate beginning proficiency in selected skills, including the calculation of drug dosages, measurement of vital signs, hygienic care, application of standard precautions, and the use of medical terminology. Prerequisites: All Developmental Course Work, GPA 2.5. Co-requisites: ENG 101 or ENG 112, BIO 102 or BIO 106, PSY 101. 60 lecture hours and 45 clinical lab hours. 5 credit hours (4 theory, 1 clinical lab).

PNU 191 Adult Health I

In this course, the student will continue to use the nursing process, within the self-care framework, to assist adult clients in meeting their physiological and psychosocial self-care requisites in the long term and acute care setting. Emphasis will be placed on client assessment and an understanding of the commonly occurring and chronic conditions that alter an individual's state of wellness. Care of clients pre- and postoperatively, and those experiencing fluid and electrolyte imbalances, infectious diseases, and selected cardiovascular, respiratory, musculoskeletal, and endocrine deviations will be discussed. Principles of critical thinking and therapeutic communication will be integrated throughout the course. Content that is presented in the classroom will be reinforced with clinical experiences in the skills laboratory and client care settings where students will apply basic nursing principles and techniques. Prerequisites: PNU 190, ENG 101 or ENG 112, BIO 102, PSY 101, GPA 2.5. Co-requisite: Elective. 105 lecture hours and 135 clinical lab hours. 10 credit hours (7 theory, 3 clinical lab).

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PNU 210 Maternal/Child, Pediatric, and Mental Health Nursing

The focus of this course is the role of the Practical Nurse as a member of a multi-disciplinary health team caring for clients and their families in obstetrical, pediatric, and mental health settings. Knowledge and skills are developed that will assist clients to attain self-care requisites, including therapeutic communication, application of growth and development principles, and incorporation of legal and ethical guidelines. Health promotion, maintenance, and restoration are emphasized in clinical experiences with clients and their families. Economic and sociocultural issues that influence the client and family will be discussed. The student will continue to use the nursing process within the self-care framework in providing care to clients during clinical experiences in inpatient and/or ambulatory obstetric, pediatric, and mental health settings. Prerequisites: PNU 191, Elective, GPA 2.5. Co-requisite: PSY 205. 90 lecture hours and 135 clinical lab hours. 9 credit hours (6 theory, 3 clinical lab).

PNU 211 Adult Health II & Role Transition

In this course the student focuses on meeting the holistic self-care needs of the adult client in the acute care setting. In collaboration with the clinical instructor and RN health team member, the student will be given the opportunity to demonstrate use of critical thinking skills in collecting subjective and objective information, prioritizing care, intervening in meeting client basic care needs, evaluating outcomes of care, and reporting and recording care. Concepts introduced in previous nursing courses are expanded and integrated into clinical and theory experiences. Emphasis in theory will be placed on more complex acute medical-surgical health deviations, the assessment of signs and symptoms and recognition of medical and nursing interventions, including medication and nutrition therapies. Critical thinking skills will continue to be an avenue for student success in test-taking and clinical performance. Concepts of role transition and accountability will be discussed, as well as skills required for obtaining employment in a health care agency. Content reviews, focused testing, and a clinical practicum will assist the student to prepare for the NCLEX – PN Licensure Examination and the assumption of a position as a Licensed Practical Nurse. Prerequisites: PNU 210, PSY 205, GPA 2.5. 120 lecture hours, 180 clinical lab hours. 12 credit hours (8 theory, 4 clinical lab).

PSRT • Psychosocial Rehabilitation – UMDNJ

PSRT 1019 Clinical Practicum in Psychosocial Rehabilitation I

Students will observe and identify common interventions for working with the individual with serious mental illness. Clinical experiences (16 hours weekly, for a minimum of 240 hours) will emphasize participation under supervision in group activities, program tasks, skills training and skills practice. Classroom lectures and seminars will provide students with opportunities to integrate theory with practical experience. Prerequisites: UPR 101, PSRT 1102, PSRT 1103, PSRT 1204. 3 lecture hours and 16 clinical hours per week. 6 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdny.edu/>

PSRT 1102 Communication Techniques in Interviewing and Counseling

Introduces students to the principles and skills necessary for the effective use of therapeutic communication. The student will learn about values and attitudes impacting on professional interpersonal relationships. Classroom lectures and practice sessions expose students to interviewing, and helping principles through active participation in a faculty supervised clinical practice. Prerequisite: UPR 101 or permission of Department Chair. 2 lecture hours and 2 laboratory hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdny.edu/>

PSRT 1103 Introduction to Group Dynamics

Introduces the student to the principles, and skills necessary for the effective use of groups to engage people, and achieve goals. Classroom lectures and practice sessions demonstrate group dynamics, and group process. Students also participate in faculty supervised group experiences. Prerequisite: UPR 101 or permission of Department Chair. 2 lecture hours and 2 laboratory hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdny.edu/>

PSRT 1204 Clinical Principles in Psychosocial Rehabilitation and Treatment

Introduces students to an understanding of psychopathology as it is addressed through psychosocial rehabilitation intervention efforts. Students will be able to define and differentiate between mental health and mental illness. The use of common psychotropic drugs and their side effects will also be covered. Current psychiatric practices will be discussed. Prerequisite: UPR 101. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdny.edu/>

PSRT 2019 Clinical Practicum in Psychosocial Rehabilitation II

Enables students to continue to develop intervention skills and strategies. Faculty supervised field experience (16 hours weekly, for a minimum of 240 hours) provides students with opportunities to develop appropriate clinical judgment, as well as initial participation in service planning and choice of interventions. Students will begin to lead activities under supervision and be introduced to documentation requirements. Prerequisite: PSRT 1019. 3 lecture hours and 16 clinical hours per week. 6 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdny.edu/>

PSRT 2121 Community Resource Management and the Individual with Severe Mental Illness

Introduces students to the principles and practices of systems utilization for the improved functioning of people with psychiatric disabilities. Needs evaluation and goal formulation will be the basis of case coordination and resource linking within a systems framework. Lectures and course activities provide students with opportunities to explore the relationship of services to the individual's needs. Web based course. Prerequisites: UPR 101, PSRT 1102, PSRT 1103, PSRT 1204. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdny.edu/>

PSRT 2231 Emerging Topics in Psychosocial Rehabilitation and Treatment

Acquaints the students with emerging developments in the field of psychosocial rehabilitation and treatment, focusing on current issues and trends. The purpose of the course is to help the student conceptualize psychosocial rehabilitation as a diverse and evolving field. Web based course. Prerequisite: PSRT 1019, PSRT 2121. 3 lecture hours per week. 3 credit hours. This course is only available to a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

PSY • Psychology

▲ PSY 101 General Psychology

Introduction to the scientific study of behavior and mental processes. Includes topics such as research methods, the neurological bases of behavior, consciousness, sensation and perception, learning, memory, thinking and intelligence, personality, motivation and emotion, development, psychological disorders and social psychology. Prerequisites: ENG 088 and ENG 099 or permission of instructor. 3 lecture hours per week. 3 credit hours.

PSY 102 Psychology of Personality

Personality dynamics in light of the major theories of personality, including Freudian, behavioral, trait, cognitive, socio-cultural, humanist and other perspectives. Includes an introduction to theory construction, personality assessment, and theories of deviance. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 105 Group Dynamics

An investigation of the roles and behavior of people in small group settings. Topics include roles and norms, leadership, decision processes, interpersonal communication, membership, attraction, and group theory. Participation in small group projects emphasized. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 204: Human Life Span

Human Life Span provides the context to understand the significant and practical and theoretical developments over the course of human life. Life Span development begins with infancy, early and middle childhood, adolescents and, the major adult stages, i.e., early, middle, late, and issues related to the end of life. Focus is on the physical, cognitive, social and emotional domains of each stage. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

▲ PSY 205 Child Psychology

Study of childhood development and psychology. Particular focus will be on physical, cognitive, and socio-emotional development from the prenatal period to preadolescence. Prerequisite: PSY 101. PSY 102 recommended. 3 lecture hours per week. 3 credit hours.

▲ PSY 206 Adolescent Psychology

The study of biological, social, emotional and cognitive development during adolescence. The course will focus on the transitions occurring within these major domain areas and on developmentally relevant segments such as peer, family, authority, identity autonomy, sexuality, general and academic achievement, and issues of adjustment. Prerequisite: PSY 101. PSY 102 recommended. 3 lecture hours per week. 3 credit hours.

PSY 207 Social Psychology

The course will focus on the ways in which human behavior influences and is influenced or determined by the social situations in which it occurs. Topics include: social persuasion and perception, attitudes, prejudice, interpersonal attraction, aggression, conformity, and group dynamics. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 208 Abnormal Psychology

A study of anxiety disorders, depression, schizophrenia, and other maladaptive behavior patterns, with emphasis on current concepts of their origin and treatment. Prerequisite: PSY 102 or permission of the instructor. 3 lecture hours per week. 3 credit hours.

PSY 210 Human Sexuality

The fundamentals of human sexuality: psychobiological mechanisms, psychosocial development, and cultural influences. Topics include the origins and development of sexuality, development of gender identities and sex roles, sexual behaviors and attitudes, and contemporary cultural issues. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 211 Current Issues in Psychology

Presentation and exploration of current social and psychological issues. Material could include but not be limited to dating, parenting, depression, drug use, behavioral disorders, eating disorders, sexually transmitted diseases and adolescent suicide. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

▲ PSY 212 Psychology of Adulthood and Aging

An investigation of the theory and research involved in the study of the psychology of adulthood and aging. Particular attention is focused on role and identity changes, personality changes, intelligence, sexuality, the psychosocial aspects of work and retirement, and death and dying. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 213 (SOC 213) Social Research Methods

This course explores the application of scientific methods to the study of human behavior and social interaction. The relationship between theory and research is examined. Students develop skills in understanding and using such techniques as case studies, surveys, experiments, participant observation, testing, and basic statistical devices to analyze data. Required prerequisite: PSY 101 or SOC 101. 3 lecture hours per week. 3 credit hours.

PSY 215 Field Work in Psychology

With permission of the department, any student who has successfully completed either PSY 101 or SOC 101, and is enrolled in a psychology, sociology, or education course, or students with exceptional qualifications may elect to engage in field work. The student must attend periodic seminars and/or prepare reports or other projects as required by the department staff. Credit will be based on a minimum of 30 hours in an approved institution for each hour of college credit per semester. This course may be repeated once. 1-3 credit hours per semester.

PSY 216 Field Work in Psychology

This course is a repeat of PSY 215 and may be taken once. 1 – 3 credit hours per semester.

▲ PSY 218 (WMS 218) Psychology of Women

This course is designed to provide the student with up-to-date information on the Psychology of Women, the history of the field, and a view of the major theories of psychology from a gender-focused perspective. Instruction in research methods and critical thinking skills will enable the student to take a fresh look at issues such as women and the media, women and health (physical and mental), women and relationships and the diverse experiences of women from different backgrounds, all from a psychological viewpoint. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

PSY 219 Child Abnormal Psychology

This course will introduce the student to maladaptive behavior in children and adolescents. Areas of discussion include mental retardation, attention deficit disorder, conduct disorders, mood disorders, learning disabilities and pervasive developmental disorders. Students will learn theoretical explanations for the development of the disorders and learn about diagnostic classification. Prerequisites: PSY 101, PSY 205, or permission of instructor. 3 lecture hours per week. 3 credit hours.

PSY 270 Topics in Psychology

Studies of selected events, issues, or topics in psychology chosen on the basis of timely concerns, community interests, students' requests, etc. These courses are of a timely or specialized nature and can be best offered not on a regularly scheduled basis, but rather periodically. Individual topics will be announced prior to registration; one, two, or three credits will be offered depending on hours and course format. 1, 2, or 3 credit hours.

PTA • Physical Therapist Assistant

PTA 115 Functional Anatomy

Study of neuro-musculo-skeletal structures with an emphasis on the function of normal human movement. Review of basic kinesiological principles and how they affect human posture and movement. Introduction to manual muscle testing and goniometry. Prerequisites: (All with a grade of "C" or better) BIO 105, ENG 101, MAT 119, PSY 101. Corequisites: PTA 130, PTA 251. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

PTA 130 Physical Therapy Procedures I

This course teaches the student to implement basic physical therapy treatment programs. Didactic and laboratory practice are included for heat, light, and hydrotherapy modalities, ambulation, massage, bed positioning, wheelchair maneuverability, and transfers. Lab practice for selected nursing procedures is also included. An initial clinical experience of 8 hrs/week will allow the student an opportunity to utilize these skills under direct supervision. Prerequisite: (All with a grade of "C" or better) BIO 105, ENG 101, MAT 119, PSY 101. Corequisites: PTA 115, PTA 251. 3 lecture, 9 laboratory hours and 4 clinical hours per week. 7 credit hours.

PTA 140 Physical Therapy Procedure II

A review of the pathological process, evaluation, and appropriate physical therapy procedures for selected orthopedic conditions commonly seen in physical therapy. A problem solving approach will be utilized to provide the student the opportunity to identify patients' needs and determine treatment modifications. Prerequisites: PTA 115, PTA 130, PTA 251 all with a minimum grade of "C+". 1 lecture hour and 6 laboratory hours per week. 3 credit hours.

PTA 217 Clinical Seminar and Practice I

This course is designed to integrate the students' clinical and didactic experiences by developing problem solving and interpersonal skills. Topics studied will include the health delivery system, legal and ethical issues relating to Physical Therapy intervention, documentation skills, and an introduction to The Guide to Physical Therapy Practice. The course will also explore the elements of effective interaction between a PTA and other professionals as well as the PTA and the patient. Areas including verbal and non-verbal communication, personal and cultural bias and social versus therapeutic helping relationships will be discussed. The students will participate in two days of supervised PTA clinical experience per week. Students must provide their own transportation. Prerequisites: All previous professional coursework with a minimum grade of "C+". Corequisites: PTA 220, PTA 221, ENG 102 and BIO 106. 3 lecture hours and 4 clinical hours per week. 7 credit hours.

PTA 220 Physical Therapy Procedures III

A review of the pathophysiological process, medical treatment, and appropriate physical therapy procedures for selected neurological conditions commonly seen in physical therapy. Physical therapy treatments will include an introduction to evaluate and to advanced therapeutic exercise, as well as thorough coverage of ADL, basic therapeutic exercise and modalities as they relate to each neurological condition. The components and principles of orthotics is included. The physics, physiology and procedures of electrotherapy will be covered. Prerequisites: All previous professional course work passed with a minimum grade of "C+", ENG 102, BIO 106. Corequisites: PTA 217, PTA 221. 4 lecture hours and 6 laboratory hours per week. 6 credit hours.

PTA 221 Physical Therapy Procedures IV

A review of the pathophysiological process, medical treatment, and appropriate physical therapy procedures for selected medical and pediatric conditions commonly seen in physical therapy. Physical therapy treatments will include an introduction to evaluation and to advanced therapeutic exercise, as well as a thorough coverage of ADL, basic therapeutic exercises and assistive devices as they relate to each pediatric and medical condition. Prerequisites: All previous professional course work passed with a minimum grade of "C+", ENG 102, BIO 106. Corequisites: PTA 217, PTA 220. 3 lecture hours and 3 laboratory hours per week. 4 credit hours.

PTA 223 Clinical Seminar

Advanced therapeutic exercise, psychosocial aspects of disability and dying, continuation of total treatment programs for selected conditions, and entry level preparation. Prerequisites: ENG 102, PTA 217, PTA 220, PTA 221 all passed with a grade of "C+" or better. Corequisite: PTA 224. 3 lecture hours per week. 3 credit hours.

PTA 224 Clinical Practice II

Full time, supervised PTA clinical experience, own transportation required. Prerequisites: PTA 217, PTA 220, PTA 221. All previous professional course work passed with a minimum grade "C+." Corequisite: PTA 223 or permission of instructor. 36 clinical hours per week. 9 credit hours.

PTA 251 Independent Living for the Disabled

An overview of selected barriers to illustrate the impact that a disability may have on a patient's lifestyle. The course offers the student an opportunity for investigation into problem solving for a given disability and the implied functional limitations. Prerequisites: All passed with a grade of "C" or better: BIO 106, ENG 102, MAT 119, PSY 101. 2 lecture hours per week. 2 credit hours.

RADM • Radiology

RADM 102 Radiation Mathematics

To introduce the student to practical mathematics applications related to their field of study. The course will evolve through basic mathematics into formulas that apply to radiation exposure, dose, conversions, decay, attenuation, HVL, shielding, radio-pharmaceutical and physics applications for all radiography, nuclear medicine technology and radiation therapy students. Prerequisite: MAT 119. 2 lecture hours per week. 2 credit hours.

RADM 110 Principles of Radiographic Exposure I

The first of a 2-semester series, this course provides the student a foundation of radiation exposure theory. Factors governing and influencing radiographic image production are presented. Student presentations are used to reinforce key concepts. Creating an image, selecting optimal technical factors, density, contrast and resolution, body habitus analysis, disease and structural processes evaluation are included. Prerequisite: RNTM 103, MAT 119. 3 lecture hours per week. 3 credit hours.

RADM 120 Radiologic Procedures I

In this first course in a series, the student will be introduced to the concepts and terminology of movement in relation to body parts. X-ray beam direction, body positions, projections and views will be explained. Anatomy, limited pathology and radiographic positioning of the chest, abdomen, upper extremity and shoulder girdle are included. A critical thinking module as related to film evaluation and clinical situations will be introduced. Clinical education based on competency evaluation parallels the course content and are an integral part of this course. Prerequisite: RNTM 101, BIO 105. 3 lecture hours per week. 3 credit hours.

RADM 121 Radiologic Procedures II

Part II in this series is a continuation of the concepts, techniques and critical thinking skills initiated in part I. Anatomy, limited pathology and radiographic positioning of the lower extremity, pelvis, bony thorax and spinal column are included. Clinical education based on competency evaluation parallels the course content and are an integral part of this course. Corequisite: CLPR 902. Prerequisite: RADM 120. 3 lecture hours per week. 3 credit hours.

RADM 122 Radiologic Procedures III

This course includes a review of the skull anatomy. Bones, topographic landmarks and positioning lines will be identified. Positioning skills for routine skull radiography, facial bones and paranasal sinuses are included. A critical thinking module as related to film evaluation and clinical situations will be used. Clinical education based on competency evaluation parallels the course content and are an integral part of this course. Prerequisite: RADM 120, BIO 105. 2 lecture hours per week. 2 credit hours.

RADM 135 Radiation Biology

An overview of the biological effects of radiation exposure examines the interaction of radiation with matter, macromolecules, cells, tissue and whole body radiation. Included is the clinical impact of genetic and somatic responses to radiation. Radiation safety is introduced through topics such as the biological consequences of irradiation, regulatory limitations of exposure and methods for exposure minimization in all modalities including CT and digital systems. Prerequisite: RNTM 103. 2 lecture hours per week. 2 credit hours.

RADM 201 Radiographic Pathology

This web enhanced course offers a survey of disease status on organ and organ systems. Emphasis is placed on the effect of pathology on medical images and the technical adjustments required to produce diagnostic images. Prerequisites: RADM 122, RADM 223, BIO 106. 3 lecture hours per week. 3 credit hours.

RADM 211 Principles of Radiographic Exposure II

A continuation of RADM 110, this course continues to focus on the production of quality radiographic images and includes rationale for the selection of appropriate technical factors, image resolution and contrast, grids, image receptor technology and sensitometry. Digital image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within a digital system are presented with a comparison to film-based systems. Prerequisite: RADM 110. 3 lecture hours per week. 3 credit hours.

RADM 212 Radiographic Physics

This course will provide the student with the knowledge of basic physics as it relates to ionizing radiation and the principles of electromagnetism. Voltage, current, power and transformer law formulas are presented. The course includes investigation of the construction of the x-ray tube and circuit and the tests required to insure equipment and patient safety. Prerequisites: MAT 119, PHY 125, RADM 110. Corequisite: RADM 211. 3 lecture hours per week. 3 credit hours.

RADM 213 Radiographic Equipment

This course is designed to assist the student in the development of a knowledge base in routine radiographic and fluoroscopic equipment, mammographic and tomographic equipment including, computed tomographic and radiographic (CT and CR) units, mobile units and digital imaging equipment and systems. Quality Assurance and Quality Control requirements will also be discussed. Corequisite: RADM 224. Prerequisites: RADM 212, 3 lecture hours per week. 3 credit hours.

RADM 223 Radiologic Procedures IV

This course is a continuation of the concepts, techniques, procedures and critical thinking skills learned in previous radiographic procedures courses. Anatomy and limited pathology related to the mouth, salivary glands, anterior neck, abdomen, urinary and digestive systems including the accessory organs of digestion with related positioning and procedures are included. Students will be introduced to the contrast agents needed to investigate these systems and to the concept of fluoroscopy and tomography as it applies. A critical thinking module as related to film evaluation and clinical situations will be used. Clinical education based on competency evaluation parallels the course content is an integral part of this course. Prerequisites: RADM 121, BIO 106. 3 lecture hours per week. 3 credit hours.

RADM 224 Radiologic Procedures V

This course is a continuation of the concepts, techniques, procedures and critical thinking skills learned in previous radiographic procedures courses. Students will be given an overview of various imaging modalities including: Nuclear Medicine, Radiation Therapy, Sonography, Computed Tomography and Magnetic Resonance Imaging. Additionally the cardiovascular and central nervous systems, long bone measurement, foreign body localization, female reproductive radiography, pediatric radiography, geriatric radiography, arthrography and trauma radiography will be discussed. A critical thinking module as related to film evaluation and clinical situations will be used. Clinical education based on competency evaluation parallels the course content and is an integral part of this course. Prerequisite: RADM 223. 3 lecture hours per week. 3 credit hours.

RNTM/RNTL • Radiology Imaging

RNTM 101 Medical Terminology

This Web-enhanced course is designed to introduce the student to the language of the Medical profession. It includes terminology relating to body systems and organs and provides a comprehensive study appropriate for all allied health modalities. Offered only online. 1 credit hour.

RNTM 102 Health Care Today

This Web-enhanced course is designed to create a broad overview of today's health-care industry. It will introduce the student to delivery of healthcare, economics, insurance programs administrative roles, leadership, management, budget and planning, internal politics, capital allocation, operating budgets, government roles, and employee relations. RADIOGRAPHY - Prerequisites: RNTM 101, RNTM 103, RADM 120. Corequisites: RADM 121, RADM 110. NUCLEAR MEDICINE - Pre Requisites: RNTM 101, NMTM 121 Corequisites: NMTM 222. Offered only online. 2 credit hours.

RNTM 103 Introduction to Medical Imaging

This course is specific to hospital imaging departments, Medical radiology offices and clinic providing medical imaging services. It addresses both patient care skills and radiation protection. Special consideration is focused on the basic emotional, physical and diverse cultural needs of patients, infection control, safety, medicolegal and ethical issues, surgical asepsis, pharmacology, vital signs and identification of emergency situations. The radiographers role in patient, public, and personnel radiation protection is emphasized. The concepts of ALARA and Dose Equivalent Limit are compared and regulatory agencies are identified. The agencies involvement in radiation protection are discussed. Corequisites: RNTM 101, RADM 120. 4 lecture hours per week. 4 credit hours.

RNTM 201 Fundamentals of Computed Tomography

This course is designed to provide a basic overview of the fundamentals of Computed Tomography (CT) technology. Equipment, instrumentation, image processing, reconstruction, patient safety, cross sectional anatomy and patient positioning will be discussed. CT involves the use of rotating x-ray equipment, combined with a digital computer, to obtain cross sectional images of the body. This course is offered to both radiographers and non-radiographers. Co-requisite: RNTM 201. 3 lecture hours per week. 3 credit hours.

RNTL 201 Fundamentals of Clinical Competency

This course is offered to licensed/registered technologists who are eligible to perform Computed Tomography procedures at accredited institutions. In addition to the topics covered in RNTM 201, RNTL 201 requires 15 clinical experience hours in CT. Clinical proficiency in several procedures included in the American Registry of Radiologic Technologists (ARRT) certification must be demonstrated. In addition, students observe and assist CT technologists in the clinical setting and evaluate the quality of CT images. Co-requisite: RNTM 201. 1 clinical hour per week. 1 credit hour.

RSTN • Respiratory Care – UMDNJ-SHRP

RSTN 2000 Core Concepts in Respiratory Care

An orientation to general patient assessment and examination, to include: infection control, patient safety, interviewing and communication, record keeping, and clinical laboratory studies. Didactic and practical demonstrations will provide the basis for proficiency practices in the laboratory and then performed during clinical practice. Corequisite: RSTN 2231. 2 lecture hours and 1 laboratory hour per week. 2 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2100 Fundamentals of Respiratory Care

An introduction to the basic therapeutic modalities used in respiratory care, to include: medical gas delivery, humidity and aerosol therapy, respiratory pharmacology, bronchial hygiene therapy, lung expansion therapy and emergency life support. Lectures, lab demonstrations and experimentation are integrated with clinical practice. Corequisites: RSTN2000, RSTN 2231 and RSTN 2189. 3 lecture hours and 4 laboratory hours per week. 4 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2189 Clinical Practice I

An orientation to the hospital environment and to the basic respiratory care procedures covered in both Core Concepts in Respiratory Care and Fundamentals of Respiratory Care. Clinical instruction and supervised practice are provided in the areas of basic patient assessment, infection control, vital signs, charting, oxygen administration, aerosol/humidity therapy, hyperinflation therapy and bronchial hygiene. Corequisites: RSTN 2100, RSTN 2100 and RSTN 2231. 7 clinical hours per week. 1 credit hour. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2200 Cardiopulmonary Pharmacology

An overview of drugs affecting the cardiopulmonary system, including bronchodilators, steroids, antibiotics, skeletal muscle relaxants, central nervous system depressants, respiratory stimulants, diuretics and cardiovascular agents. Prerequisites: To enroll in RSTN 2200 you must have completed the first semester in the UMDNJ-SHRP Respiratory Care Program. Corequisites: RSTN 2230 and RSTN 2232. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2230 Cardiopulmonary Evaluation

A lecture and laboratory course on invasive and noninvasive diagnostic and monitoring procedures including roentgenography, electrocardiography, pulmonary function testing, hemodynamic monitoring, arterial blood gas analysis, patient interviewing and physical assessment. Prerequisites: RSTN 2000 and RSTN 2231. Corequisites: RSTN 2200 and RSTN 2232. 3 lecture hours and 1 laboratory hour per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2231 Applied Cardiopulmonary Pathophysiology I

A study of the anatomy and physiology of the cardiopulmonary system as it relates to respiratory care. Includes basic anatomy of the pulmonary and cardiac system, physiology or circulation, gas exchange, control of respiration and an overview of the pathophysiology and treatment of common disorders of the cardiopulmonary system. Prerequisites: BIO 105 and BIO 106. Corequisites: RSTN 2000. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2232 Applied Cardiopulmonary Pathophysiology II

A case-based study of the pathophysiology of common disorders affecting the cardiopulmonary system, that emphasizes diagnosis and treatment in the clinical setting. Prerequisites: BIO 105, BIO106, RSTN 2000 and RSTN 2231. Corequisites: RSTN 2200 and RSTN 2230. 2 lecture hours per week. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2250 Principles of Ventilatory

Support Lectures, demonstrations, and lab exercises covering the physiologic principles and clinical procedures used to provide both invasive and noninvasive artificial ventilatory support to adults, children and infants. Topics include: respiratory failure, airway management, physics and physiology of ventilatory support, initiating and adjusting ventilatory support, managing and monitoring the patient in respiratory failure, and discontinuing ventilatory support. Prerequisites: Completion of the first semester in the UMDNJ-SHRP Respiratory Care Program or have equivalent educational preparation. Corequisites: RSTN 2200, RSTN 2230, RSTN 2232 and RSTN 2289. 3 lecture hours and 6 laboratory hours per week. 5 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu>

RSTN 2289 Clinical Practice II

This clinical is designed to build on the skills which the student has developed during Clinical Practice I. The student will develop proficiency in skills relating to Fundamentals of Respiratory Care, Core Concepts procedures and Critical Care Rotation. Prerequisites: Completion of the first semester in the UMDNJ-SHRP Respiratory Care Program or have equivalent educational preparation. Corequisites: RSTN 2200, RSTN 2232 and RSTN 2250. 6 clinical hours per week. 2 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2340 Patient Management Critical Care

An in-depth study of the clinical management of the cardiopulmonary patient in the critical care setting, emphasizing specialized respiratory assessment, advanced ventilatory management techniques, basic interpretation of the chest film, hemodynamic monitoring, electrocardiograph interpretation, and the effects of cardiopulmonary disorders on the other major body systems. Prerequisites: Completion of the first and second semesters in the UMDNJ-SHRP Respiratory Care Program or have equivalent educational preparation. Corequisites: RSTN 2355, RSTN 2370 and RSTN 2389. 3 lecture hours per week, 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2355 Pediatric/Neonatal Respiratory Care

The course provides an in-depth analysis of pediatric and neonatal disorders requiring respiratory care intervention, including assessment techniques and applicable therapies and protocols. Prerequisites: Completion of the first and second semesters in the UMDNJ-SHRP Respiratory Care Program or have equivalent educational preparation. Corequisites: RSTN 2340, RSTN 2370 and RSTN 2389. 2 lecture hours and 3 laboratory hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2370 Long Term, Home and Rehabilitative Care

An analysis of the goals and methods underlying provision of respiratory care in non-acute settings. Includes standards and regulations governing non-acute respiratory care, team planning, patient selection, program design and provision and documentation of various clinical services in the home and in long-term care and rehabilitation facilities. Includes cost, reimbursement and ethical issues. Prerequisites: RSTN 2000, RSTN 2231, RSTN 2200, RSTN 2230 and RSTN 2289. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

RSTN 2389 Clinical Practice III

The course provides supervised experience in both acute care and alternative settings, with an emphasis on developing the skills necessary to function independently. Experiences include cardiopulmonary diagnostics, critical care of the adult, infant and child; and longterm, home and rehabilitative care. Prerequisites: Completion of the first and second semesters in the UMDNJ-SHRP Respiratory Care Program or have equivalent educational preparation. Corequisites: RSTN 2340, RSTN 2355 and RSTN 2370. 18 clinical hours per week. 3 credit hours. This course is only available to students who have been accepted into a UMDNJ program. For the most current course description visit <http://coursecatalog.umdj.edu/>

SLR • Service Learning

SLR 102 Service Learning

Course Description: This course is designed to provide students with an opportunity to serve the community and to meet general education goals and objectives by reflecting upon their service experience. The course requires 32 hours of community service with an agency chosen by the student and approved by the instructor, monthly seminars guided by a faculty instructor and assigned written and oral reflective work, including journals, class discussion, and a final presentation. 2 lecture hours per month. 2 credit hours.

SOC • Sociology

▲ SOC 101 Principles of Sociology

Introduction to foundations of the scientific study of Human social life, to theories and methods of Sociology, and to such basic concepts as culture, society, social organization, social stratification, and social change. Prerequisites: ENG 088 and ENG 099 or permission of instructor. 3 lecture hours per week. 3 credit hours.

▲ SOC 102 Social Problems

Analysis of basic social problems, their causes and effects on society at large, deviant behavior and social disorganization as exemplified by mental disorders, crime, drug abuse, sexual deviance, and suicide. Policies to deal with social problems are discussed. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

▲ SOC 103 (WMS 101) Gender, Culture and Society

Gender, Culture and Society is for students who are interested in the ways that biology and society's expectations of males and females influence how people act. This course examines how popular culture, biology, history, the media, social institutions, and other factors such as race and class influence the way we experience gender. Prerequisites: ENG 088 and ENG 099. 3 lecture hours per week. 3 credit hours.

▲ SOC 203 International Social Problems

This is an intermediate course designed to follow the introductory course in Sociology and to enable the student to view from a theoretical and practical perspective social phenomena which international communities view as deviant or problematic. This course will examine a number of socially relevant topics including, approaches to criminal justice, the educational system, social welfare, and social policy on drugs, alcohol, and health care. Students will examine these and other social problems as they are manifested in international societies compared to how these problems are addressed in the United States. A short fieldwork/travel experience to a country outside of the United States is required for completion of this course. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

▲ SOC 204 Women and Social Change

Students will learn about women's roles and lives in different times and cultures; the history of women's movements and activism; and terminology and controversial issues concerning research in the field of women's studies. Women and Social Change is a course either for students who are majoring in Women's Studies, or for those who want a general overview of the academic study of women's issues. Prerequisites: SOC 101 or SOC 103/WMS 101. 3 lecture hours per week. 3 credit hours.

▲ SOC 206 Minorities in American Life

A sociological investigation of the history and present status of minority-majority relations in American society, focusing upon ethnic, racial, and religious minorities. Special attention is given to such issues as the origin of prejudice and discrimination and the tensions and conflicts inherent in inter-group relations. Possible resolutions are discussed. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

▲ SOC 207 Social Inequality

Social Inequality is an intermediate course in Sociology, which will examine the concepts of race, gender and social class and how they are manifested in social life. A number of socially relevant topics will be discussed including, social class and power, racism, sexism and discrimination. In addition, class-based and gender-based social policy will also be examined. Possible resolutions to these and other issues are also explored. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SOC 209 Introduction to Social Policy and Welfare

Introduction to Social Policy and Welfare is an intermediate course in Sociology, which will provide an overview of the development of and social policies for social welfare and assistance in the United States and abroad. A number of socially relevant topics will be discussed including types of social welfare systems, public attitudes about social welfare policies, intersections of race, class and gender in social policy. In addition, there is discussion about the social work profession and private and non-profit sector social agencies. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SOC 213 (PSY 213) Social Research Methods

This course explores the application of scientific methods to the study of human behavior and social interaction. The relationship between theory and research is examined. Students develop skills in understanding and using such techniques as case studies, surveys, experiments, participant observation, testing, and basic statistical devices to analyze data. Prerequisites: PSY 101 or SOC 101. 3 lecture hours per week. 3 credit hours.

SOC 215 Field Work in Sociology

With permission of the department, any student who has successfully completed either PSY 101 or SOC 101, and is enrolled in a psychology, sociology, or education course, or students with exceptional qualifications may elect to engage in field work. The student must attend periodic seminars and/or prepare reports or other projects as required by the department staff. Credit will be based on a minimum of 30 hours in an approved institution for each hour of college credit per semester. This course may be repeated once. 1-3 credits per semester.

▲ SOC 219 Gender and Work

This course explores how gender, race/ethnicity, and social class shape work. It offers students a guide to occupational development and helps students think critically about work in the past, the present, and the future. This course is taken as a diversity elective and an elective for the Psychology, Sociology and Social Services programs. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SOC 270 Topics in Sociology

Studies of selected events, issues, or topics in sociology chosen on the basis of timely concerns, community interests, student requests, etc. These courses are of a time or specialized nature and can best be offered not on a regularly scheduled basis, but rather periodically. Individual topics will be announced prior to registration; one, two, or three credits will be offered depending on hours and course format. 1, 2, or 3 credit hours.

SOC 273 Marriage and Family

This course will use sociological perspectives to examine the diversity of families and explore the changing marriage patterns in contemporary society. The goal of the course is to help students develop a sound base for successful marriage and healthy family. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SPA • Spanish**▲ SPA 101 Beginning Spanish I**

Development of the fundamentals skills of understanding, speaking, reading, and writing. Listening practice available. Media are incorporated into the classroom experience and web-based materials are a required part of the course. Not open to native Spanish speakers. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

▲ SPA 102 Beginning Spanish II

A continuation of SPA 101. Media will be incorporated into classroom experiences. Media are incorporated into the classroom experience and web-based materials are a required part of the course. Not open to native Spanish speakers. Prerequisite: SPA 101 or two years high school Spanish. 3 lecture hours per week. 3 credit hours.

SPA 105 Conversational Spanish I

Development of ability to communicate orally in Spanish. Students who wish to take SPA 105 must have completed two years of high school Spanish or SPA 102, or must have the permission of the instructor. Fulfills one semester of the foreign language requirement. Not open to native Spanish speakers. Prerequisite: ENG 088. 3 lecture hours per week. 3 credit hours.

SPA 106 Conversational Spanish II

A continuation of SPA 105. Not open to native Spanish speakers. 3 lecture hours per week. 3 credit hours.

▲ SPA 109 Spanish Grammar and Composition for Hispanics

Study of peculiar grammatical and syntactical problems that confront native Spanish speakers. Topics include spelling, accentuation, theme writing. Those who take this course are normally required to complete the language requirement (if any) by taking SPA 112 course or higher. This course fulfills one semester of the foreign language requirement or can be taken for elective credit. 3 lecture hours per week. 3 credit hours.

▲ SPA 111 Intermediate Spanish I

Review of fundamental skills of understanding, speaking, reading, and writing. Media are incorporated into the classroom experience and web-based materials are a required part of the course. Not generally open to native Spanish speakers. Prerequisite: SPA 101, SPA 102 or 3 years high school Spanish. 3 lecture hours per week. 3 credit hours.

▲ SPA 112 Intermediate Spanish II

A continuation of SPA 111 or 3 years of high school Spanish; not generally open to native Spanish speakers. Media are incorporated into the classroom experience and web-based materials are a required part of the course. 3 lecture hours per week. 3 credit hours.

SPA 113 Intermediate Spanish for Healthcare Personnel

Introduces essential medical vocabulary and intermediate conversational skills in Spanish. Via a communicative approach it will recreate everyday situations encountered in work settings such as doctor's offices, hospitals and emergency rooms. Multimedia and Web-based content will be used to develop and reinforce the ability to read, write, speak and listen in Spanish. Prerequisite: SPA 102, three years high school Spanish or native ability in Spanish. 3 lecture hours per week. 3 credit hours.

SPA 115 Spain: Its Culture and its People (Foreign Study)

A comprehensive survey of Spanish culture and civilization including geographical, historical, social, and economic factors. This course is offered in conjunction with a trip to Spain and fulfills one semester of the Spanish Modern Language requirement or may be taken as a free elective. 3 credit hours.



SPA 116 Civilization of Latin American Countries (Foreign Study)

An introduction to Hispanic life and civilization. This course is offered in conjunction with a trip to Latin America and fulfills one semester of the Spanish Modern Language requirement or may be taken as a free elective. 3 credit hours.

▲ SPA 121 Advanced Spanish I

Further development of skills in reading, composition and conversation. Prerequisite: SPA 112, or its equivalent. 3 lecture hours per week. 3 credit hours.

▲ SPA 122 Advanced Spanish II

A continuation of SPA 121. Prerequisite: SPA 121. 3 lecture hours per week. 3 credit hours.

TRN • Translating

TRN 101 Introduction to Translating

A general, introductory course that covers the theoretical and practical aspects of translating written text from one written language into another. Students learn what skills and knowledge are needed to become professional translators. They perform translations on a variety of documents. The emphasis is on translation into written English from any other written language although practice and feedback are given in the opposite direction as well. Prerequisites: Completion of all developmental English and ESL requirements of the College. This is an online course. 3 lecture hours per week. 3 credit hours.

UCC • UCC101: College Success

UCC 101 College Success

This course is designed to help students adjust to college by giving them the information, support and strategies they need to feel secure in their college classes. It will help students clarify their goals, become familiar with the academic environment, and sharpen their ability to learn and think critically. Permission of program coordinator required for online sections. Prerequisite: ENG 087 and ESL 065 if required.. 2 lecture hours per week. 2 credit hours.

UPR • Psychosocial Rehabilitation

UPR 101 Introduction to the Principles of Psychosocial Rehabilitation

Enables students to identify the methods by which individuals with severe mental illness are helped in psychosocial rehabilitation and treatment settings. Classroom lectures and seminars provide students with opportunities to explore concepts unique to psychosocial rehabilitation, including history, philosophy and values of psychosocial rehabilitation. 3 lecture hours per week. 3 credit hours.

URS • Urban Studies

▲ URS 101 Introduction to Urban Studies

The course examines the variety of issues faced by the nation's cities. It explores the historical development of the city, the city-suburban relationship, regional patterns, and recent developments which impact on the cities, as well as those institutions and processes which particularly affect the nation's cities. Prerequisites: ENG 088, ENG 098 or permission of instructor or Department Chair. 3 lecture hours per week. 3 credit hours.

URS 201 Seminar and Field Work in Urban Affairs

The core requirement of this course is that the student undertake a first-hand study and analysis of an urban (or suburban) problem, applying the theory and knowledge gleaned from preceding courses in this discipline. Selection of the problem and establishment of the necessary community relationships are to be made by the student with the guidance of the instructor. Format for the course is tutorial, concerning the student's independent research and seminar, his periodic reports and sharing of experiences with the members of the class. The expertise of all departments of the College is to be made available to the student as needed. Prerequisites: ENG 089, ENG 099, URS 101 or permission of instructor or Department Chair. 3 class hours per week and 45 hours of field work during the semester. 4 credit hours.

WDW • Walt Disney World

WDW 297 Internship I

This course provides an internship at Walt Disney World (WDW) in Orlando, Florida or Disneyland in California for one semester. Students must submit weekly journals and a final paper electronically to the WDW instructor/coordinator at Union County College. At the time of the required interview with Disney representatives, students must have a minimum GPA of 2.0. The student is responsible for transportation to and from Florida or California. Students receive an hourly wage. They are housed on Disney property; housing costs are deducted from their weekly paycheck. Students must register for this course prior to the internship. Students may not register for Internship I and any UCC co-op experience class or Internship II during the same semester. Prerequisite: 2.0 GPA. 3 credit hours.

WDW 299 Internship II

This course provides an internship at Walt Disney World (WDW) in Orlando, Florida or Disneyland in California for one semester. Students must submit weekly journals and a final paper electronically to the WDW instructor/coordinator at Union County College. Students must also participate in a minimum of two Disney workshops. At the time of the required interview with Disney representatives, students must have a minimum GPA of 2.0. The student is responsible for transportation to and from Florida or California. Students receive an hourly wage. They are housed on Disney property; housing costs are deducted from their weekly paycheck. Students must register for this course prior to the internship. Students may not register for internship and any UCC co-op experience class or Internship I during the same semester. Prerequisite: 2.0 GPA. 6 credit hours.

WMS • Women's Studies

▲ WMS 101 (SOC 103) Gender, Culture and Society

Gender, Culture and Society is for students who are interested in the ways that biology and society's expectations of males and females influence how people act. This course examines how popular culture, biology, history, the media, social institutions, and other factors such as race and class influence the way we experience gender. Prerequisites: ENG 088 and ENG 099. 3 lecture hours per week. 3 credit hours.

▲ WMS 218 (PSY 218) Psychology of Women

This course is designed to provide the student with up-to-date information on the Psychology of Women, the history of the field, and a view of the major theories of psychology from a gender-focused perspective. Instruction in research methods and critical thinking skills will enable the student to take a fresh look at issues such as women and the media, women and health (physical and mental), women and relationships and the diverse experiences of women from different backgrounds, all from a psychological viewpoint. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

 **Puzzled by Prerequisites?**

Prerequisites are courses that must be successfully completed before you can enroll in the next level course or a more advanced course. You **MUST** take and pass all prerequisites.

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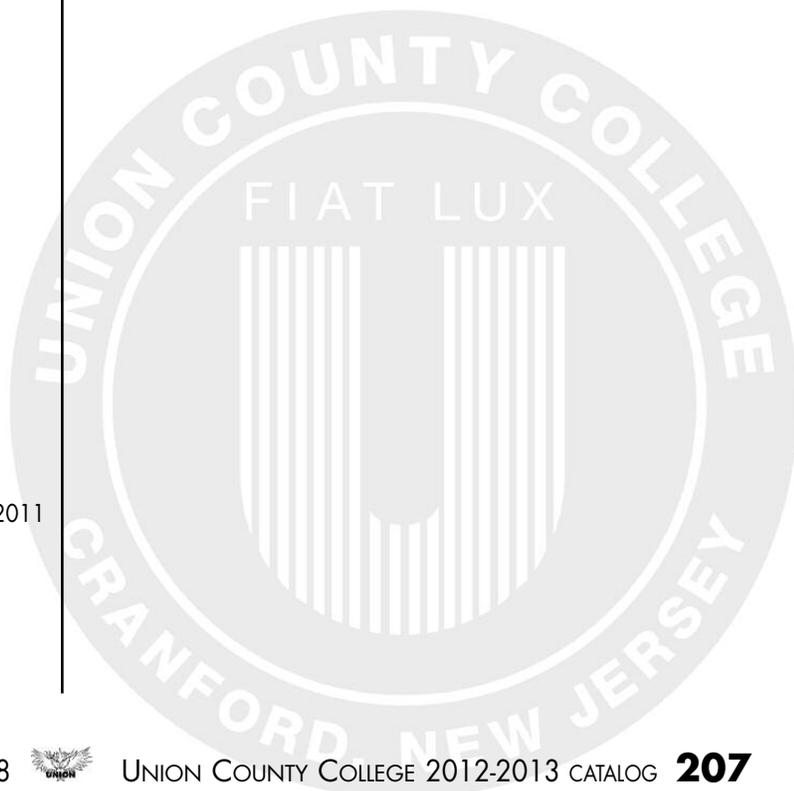
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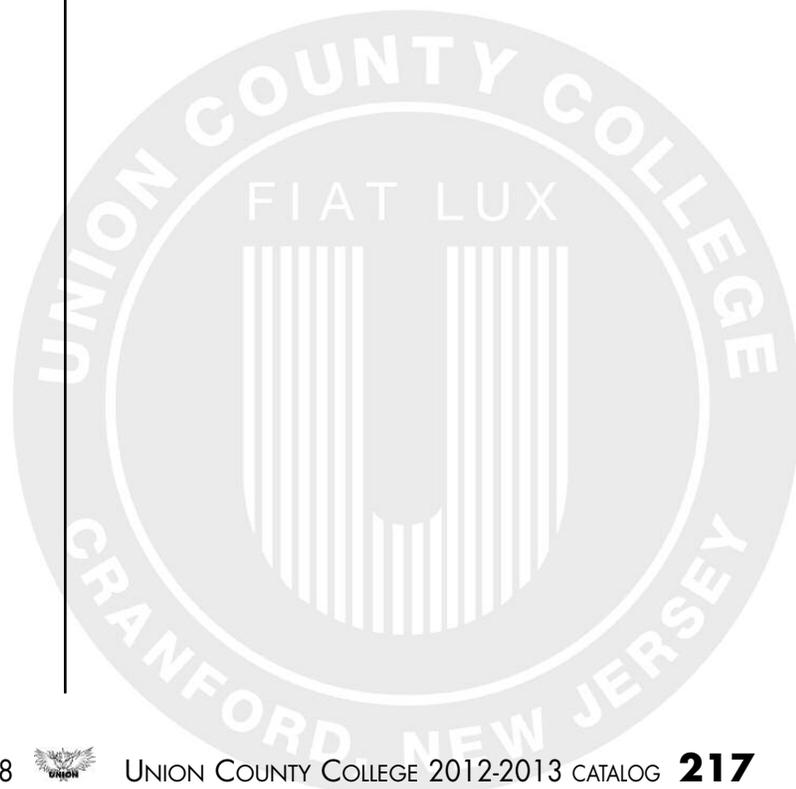
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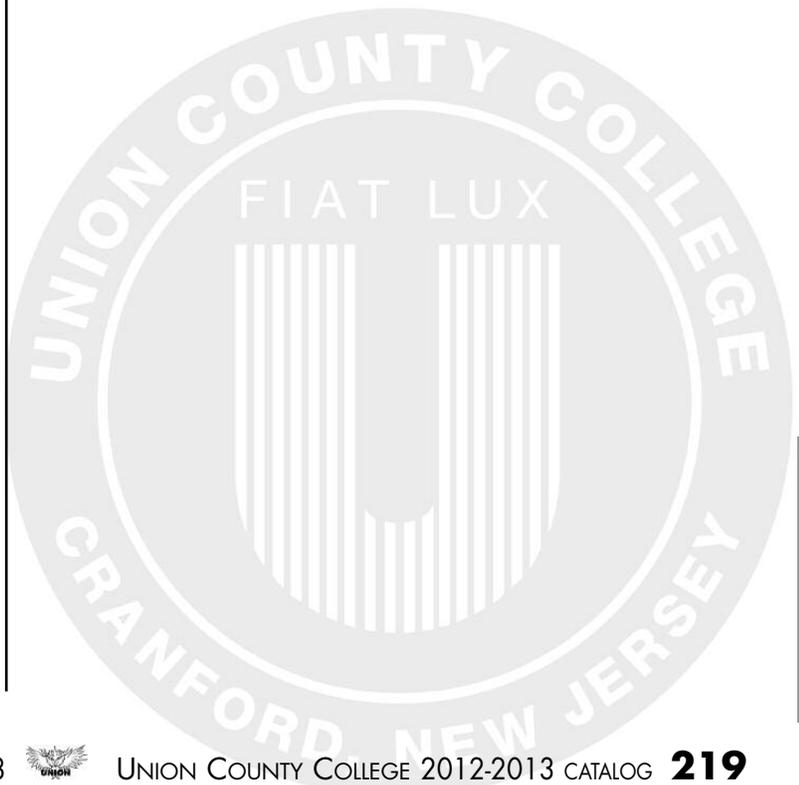
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The Union County College catalog is published annually and presents the announcement of general information, general academic regulations and the College's academic program as it exists at the time of publication. The College reserves the right to change the regulations, tuition, fees, and other information, and delete any courses described in this catalog for any reason without prior notice, although such changes will be announced. The College cannot guarantee enrollment into specific sections of desired courses contained in this publication at any time. Failure to read this publication does not excuse students from the requirements and regulations described herein.

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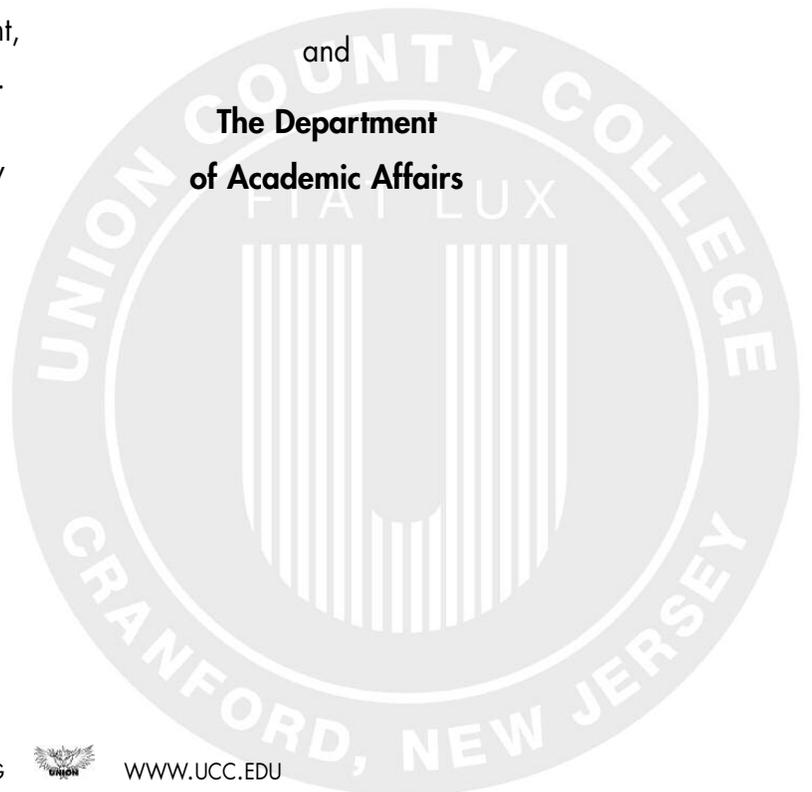
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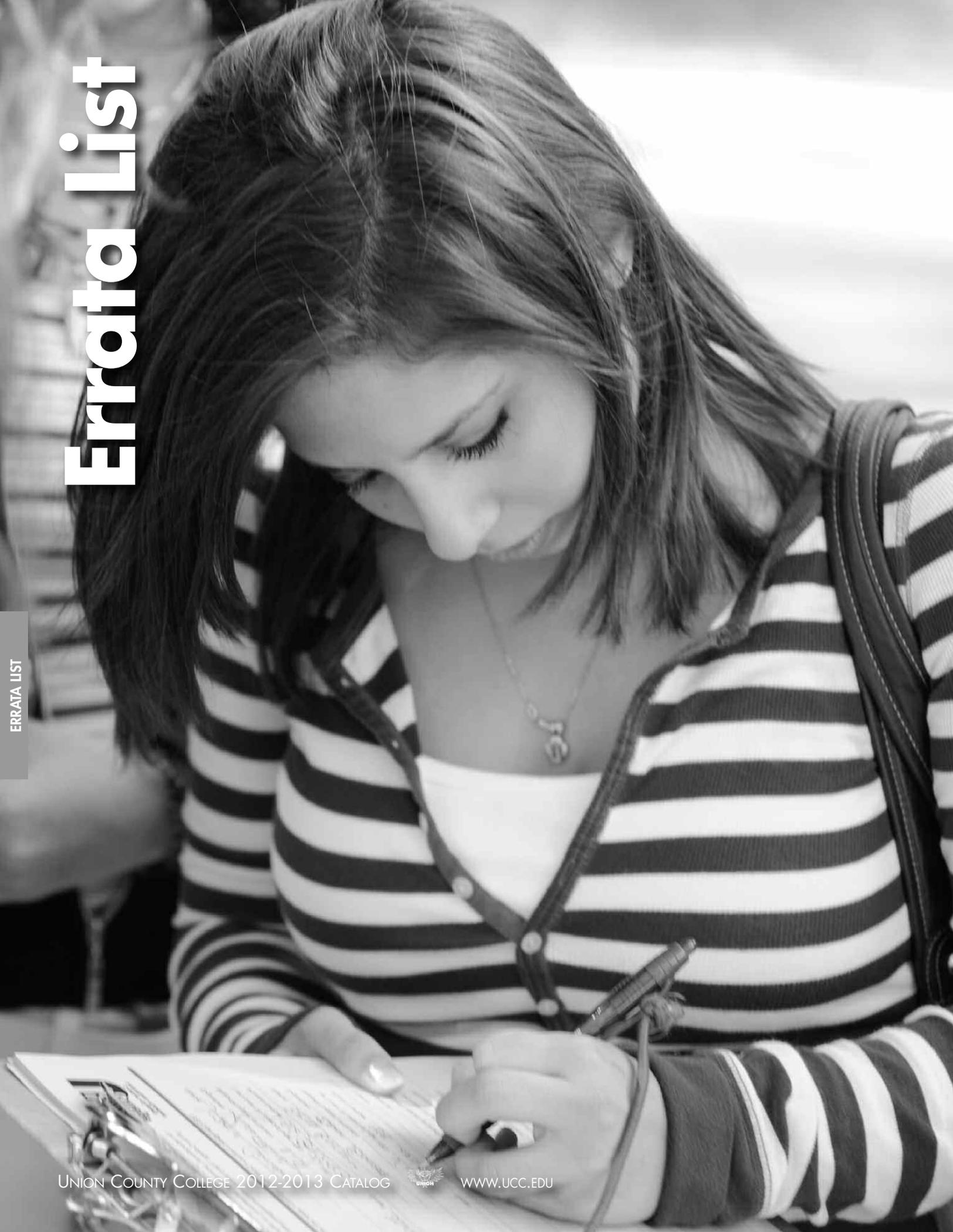
- ... **Academic Information** should be directed to the office of the Vice President for Academic Affairs.
- ... **Tuition and Fees** should be directed to the office of the Vice President for Financial Affairs.
- ... **Student Services**, including admissions, registration, placement testing, and office hours should be directed to the office of the Vice President for Student Services.

**This catalog has been published
by the Office of
College Relations**

and
**The Department
of Academic Affairs**



Errata List



ERRATA LIST



MAKE NOTE OF THESE CORRECTIONS

Every effort is made to ensure the accuracy of information included in this catalog. When errors are found, the information will be corrected and noted on this page. The ONLINE version of this catalog is the OFFICIAL version for purposes of declaring a major/program of study and the requirements for the specified degree.

pg 171

The credit hours for EMT 102 are corrected to six. The remainder of the course description does not change:

EMT 102 Emergency Medical Training

This course meets the requirements of the National Highway and Transportation Safety Administration's Emergency Medical Technician National Educational Standards. The course is designed to instruct a student to the level of Emergency Medical Technician. The EMT serves as a vital link in the chain of the healthcare team. The student will learn all skills necessary to provide emergency medical care at a basic life support (BLS) level with an ambulance or other specialized service.

Upon successful completion of this course, the student will be eligible to take the state certification exam, which is required to obtain an EMT provider card issued by the NJ Department of Health and Senior Services - OEMS. Prerequisite: EMT 100 or proof of current CPR/AED certification at the healthcare/professional level by the American Heart Association, American Red Cross, ASHI, or National Safety Council. 8 lecture hours and 6 clinical skill hours per week. 6 credit hours.

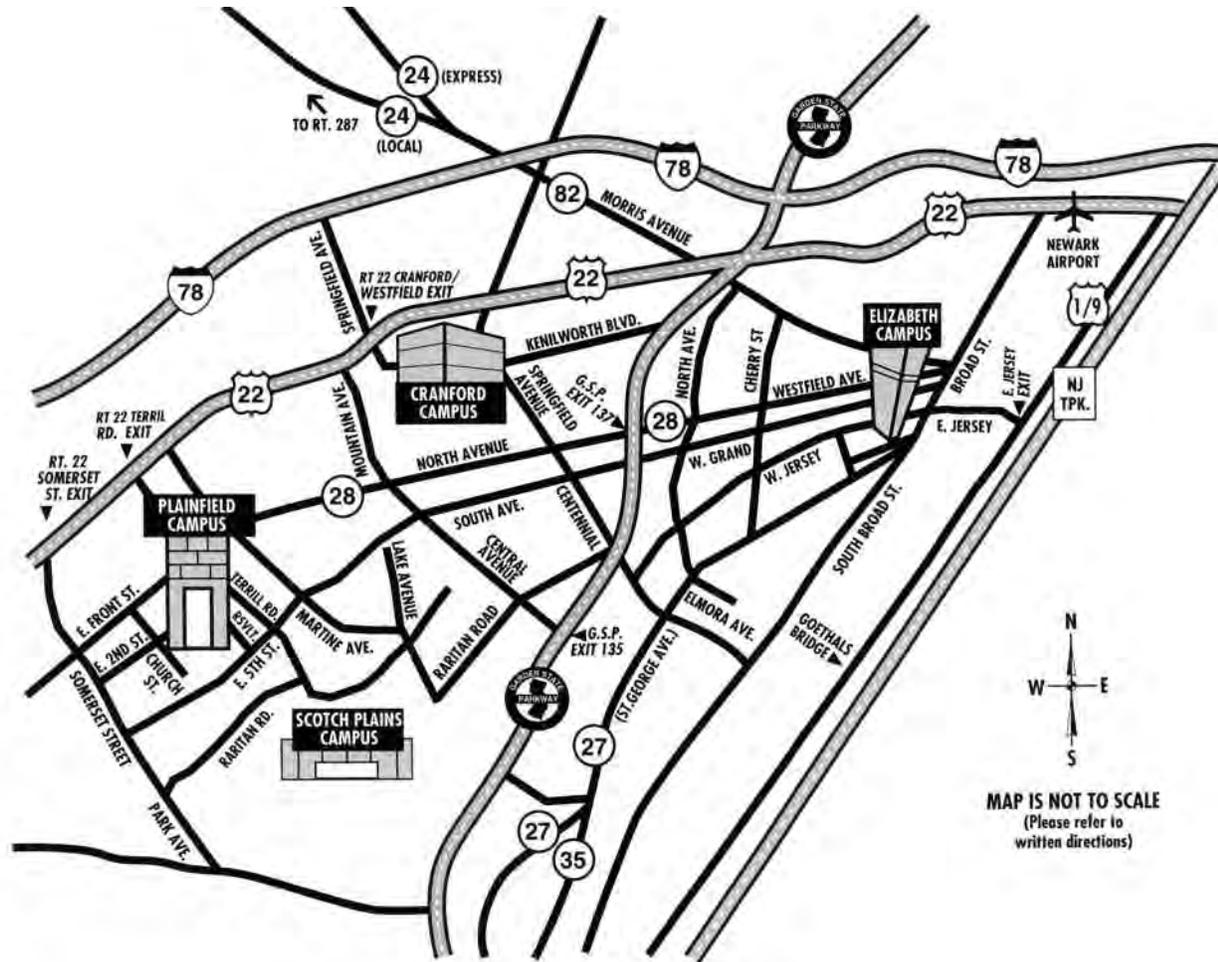


What's Errata mean...?

er-ra-ta: [ih-rah-tuh, ih-rey-, ih-rat-uh] noun

1. plural of erratum.
2. a list of errors and their corrections inserted, usually on a separate page or slip of paper, in a book or other publication

CAMPUS OVERVIEW MAP & DIRECTIONS



C Cranford Campus

1033 Springfield Avenue, Cranford, NJ 07016-1599
(908) 709-7000

- **From the Garden State Parkway:** Exit 137 to Westfield Ave. (Rt. 28). Turn right and take North Ave. (West) to Springfield Ave. (just past the 2nd light) and turn right. The College is 3/4 of a mile on the left.
- **From Rt. 22 (East or West):** Exit at Cranford/ Westfield (Springfield Ave.) and proceed towards Cranford. At the fourth light, turn right, continue on Springfield Ave. for two blocks. The College is on the right.

Elizabeth Campus

40 West Jersey Street, Elizabeth, NJ 07202-2314
(908) 965-6000

- **From the Garden State Parkway:** Exit 137 to Westfield Ave. (Rt. 28) east to Elmora Ave. Make a right onto Elmora Ave. and go three blocks and make a left onto West Jersey St. The College is four blocks on the right.
- **From the NJ Turnpike:** Exit at 13A. Take Route 1&9 South to East Jersey Street. Make a right on East Jersey Street. Cross Broad Street. The College is one block ahead on the left.

Plainfield Campus

232 East Second Street, Plainfield, NJ 07060-1308
(908) 412-3599

- **From the Garden State Parkway, NJ Turnpike and Rt. 22:** Take Rt. 22 to the Somerset St. Exit in North Plainfield. Take Somerset Street towards Plainfield where it becomes Park Ave. Take Park Ave., and turn left onto Second St. The College is on the right, three blocks from Park Ave. OR Exit Route 22 at the Terrill Road exit in Scotch Plains. Proceed two lights south of Rt. 22. to 2nd Street, turn right and follow 2nd Street to the College.

Scotch Plains Campus*

1700 Raritan Road, Scotch Plains, NJ 07076
(908) 709-7000

- **From the Garden State Parkway:** Exit 135 onto Central Avenue towards Westfield. At the first light, make a left onto Raritan Road and go to Lake Ave. Make a right onto Lake Ave. and go to the second light and make a left onto "another" Raritan Road. The College is 1/2 mile on the left. *(See note below)
- **From Rt. 22:** Exit at Terrill Road. Continue for about 3 miles, where it will turn into Raritan Road. Stay on Raritan Road 1/2 mile. The College is on the right.

* Please enter Scotch Plains Campus complex from driveway entrance to the Union County Vocational and Technical School. The Police Academy is located in the back of the complex and to the right. The Magnet School is to the left immediately after entering the complex.



CRANFORD



ELIZABETH



PLAINFIELD



SCOTCH PLAINS



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