

UNION

COUNTY

COLLEGE

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COLLEGE CONTACTS

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 Advising Center, the Assessment Center, and the Library have additional evening hours.

For the most current information, visit 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

CRANFORD CAMPUS

BOOKSTORE

Campus Center, (908) 709-7619

COLLEGE LIFE/ATHLETICS OFFICE

Campus Center, (908) 709-7017

PUBLIC SAFETY OFFICE

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

STUDENT GOVERNMENT

Campus Center, (908) 709-7074

STUDENT SERVICES CENTER

Student Development Building
Student Services Center, SD 103
(908) 709-7500

- Academic Testing
- Admissions/Records/Registration (E-mail: admissions@ucc.edu)
- Advising, Career, and Transfer Services (E-mail: advising@ucc.edu)
- Disability Support Services (E-mail: disabilitysvc@ucc.edu)
- Dean of Students (E-mail: deanofstudents@ucc.edu)
- Educational Opportunity Fund (E-mail: eof@ucc.edu)
- Financial Aid (E-mail: FinancialAid@ucc.edu)
- International Student Services
- Student Accounts (E-mail: StudentAccountsOffice@ucc.edu)
- Veteran Student Services

ELIZABETH CAMPUS

BOOKSTORE

Kellogg Building, 1st Floor
(908) 965-6068

INSTITUTE FOR INTENSIVE ENGLISH

Lessner Building, 4th Floor, Room 414
(908) 965-6030

PUBLIC SAFETY OFFICE

Lessner Main Lobby, (908) 965-6070
Kellogg Main Lobby, (908) 659-5159

STUDENT SERVICES CENTER

Kellogg Building, 5th Floor
40 West Jersey Avenue
Elizabeth, NJ 07202
(908) 965-6050

- Academic Testing
- Admissions/Records/Registration (E-mail: admissions@ucc.edu)
- Advising, Career, and Transfer Services (E-mail: advising@ucc.edu)
- Disability Support Services (E-mail: disabilitysvc@ucc.edu)
- Dean of Students (E-mail: deanofstudents@ucc.edu)
- Educational Opportunity Fund (E-mail: eof@ucc.edu)

- Financial Aid (E-mail: FinancialAid@ucc.edu)
- International Student Services
- Student Accounts (E-mail: StudentAccountsOffice@ucc.edu)
- Veteran Student Services

TRINITAS SCHOOL OF NURSING

Office: (908) 659-5200
Recruiting: (908) 709-7518
Admissions: (908) 659-5200

PLAINFIELD CAMPUS

BOOKSTORE

(908) 412-3560

PUBLIC SAFETY OFFICE

Main Building Help Desk
(908) 412-3595

STUDENT SERVICES CENTER

Logos Building
232 East Second Street
Plainfield, NJ 07060
(908) 412-3550

- Academic Testing
- Admissions/Records/Registration (E-mail: admissions@ucc.edu)
- Advising, Career, and Transfer Services (E-mail: advising@ucc.edu)
- Disability Support Services (E-mail: disabilitysvc@ucc.edu)
- Dean of Students (E-mail: deanofstudents@ucc.edu)
- Educational Opportunity Fund (E-mail: eof@ucc.edu)
- Financial Aid (E-mail: FinancialAid@ucc.edu)
- International Student Services
- Student Accounts (E-mail: StudentAccountsOffice@ucc.edu)
- Veteran Student Services



Welcome Students!

Union County College welcomes you.

We refer to this as a "Catalog", but you can consider this your "On-Time Graduation Guide."

Graduating on-time means earning the credits you need for a degree or certificate in less than three years. At Union County College, we are committed to helping you achieve this goal. Our faculty and staff don't just pay lip service to our "Students are Number One" motto. We live it, we believe it, and we take pride in delivering on the promise of a great community-college education.

As you will see, the Catalog provides detailed information about what you need to know to be a successful student at Union. Please pay particular attention to the Academic Policies section which outlines academic requirements such as grading.



The information inside this Catalog will pertain to you for as long as you remain continuously enrolled here. This is also your Catalog if you're a student who is returning to the College after an absence of more than one semester.

The "Programs of Study" section provides a step-by-step roadmap for your chosen program of study. You will find over 60 academic programs from which to choose as well as a semester-to-semester track to a 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 in Applied Science degree will increase your chances of entering directly into a career when you graduate.

You are about to begin what we hope will be a marvelously successful year. We promise to do whatever we can to help you get started on the right foot and then help you set a pace for yourself that suits your style and addresses your individual educational goals.

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



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 ...

✓ APPLY FOR ADMISSION

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

✓ APPLY FOR FINANCIAL AID

Complete your Free Application for Federal Student Aid (FAFSA) at www.fafsa.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.

✓ SUBMIT A TRANSCRIPT

Students with a high school diploma or GED, who graduated within five years from the time of enrollment and earned an unweighted grade point average of 3.0, took at least four years of English and three years of mathematics in high school, are not required to take the Accuplacer Test.

✓ TAKE THE PLACEMENT TEST

All students must take the Accuplacer college placement test 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. Submit your high school transcript for evaluation for college placement.

✓ NEW STUDENT ORIENTATION

New Student Orientation is required for all students who have never attended college and who intend to enroll full-time at Union County College. Part-time students are not required to attend, but are welcome to do so. Students can participate in the program at any of our campuses. At the New Student Orientation, you will learn about the campus and resources, assess your career interests, understand your degree requirements, and register for your full-time schedule.

To sign up for New Student Orientation, go to www.ucc.edu/go/orientation. If you have further questions, contact the Advising, Career, and Transfer Services at advising@ucc.edu, or at (908) 709-7500.

✓ MEET WITH AN ADVISOR

Do you know what major your career choice requires? Research the career you will study in college. This helps prevent 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!



✓ REGISTER FOR CLASSES!

Register online at 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.

✓ PAY TUITION AND FEES

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

✓ 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. 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, you may be eligible for the book allowance program.

✓ GET A STUDENT ID CARD

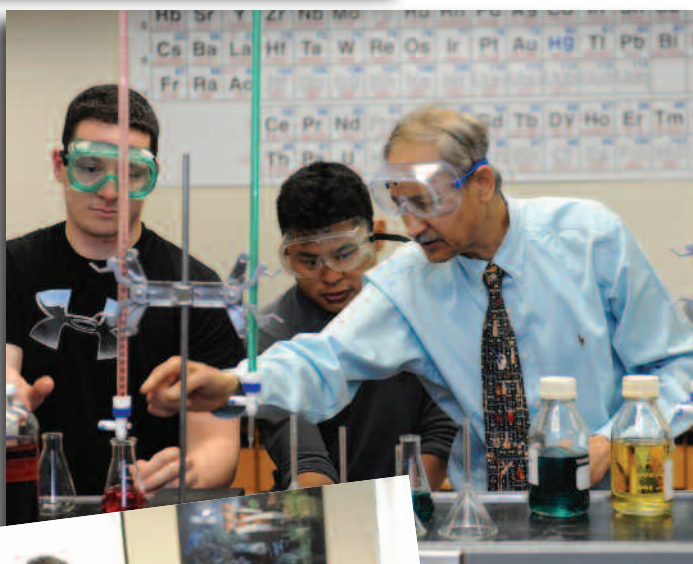
New students should have their photos taken for a Union County College Student Identification Card as soon as they register, and have paid all of their fees. Each semester students must obtain a registration sticker to renew their ID card. Students may obtain an ID Card in the Student Services Center at any of the College's three campuses.



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 60 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.





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, 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 developmental course work you need to complete your degree.

ASSOCIATE IN ARTS (A.A.)

This is a transferable degree to a four-year college or university for completing a bachelor's 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.

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 should check that four-year college's requirements.

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

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 SCIENCE (A.S.)

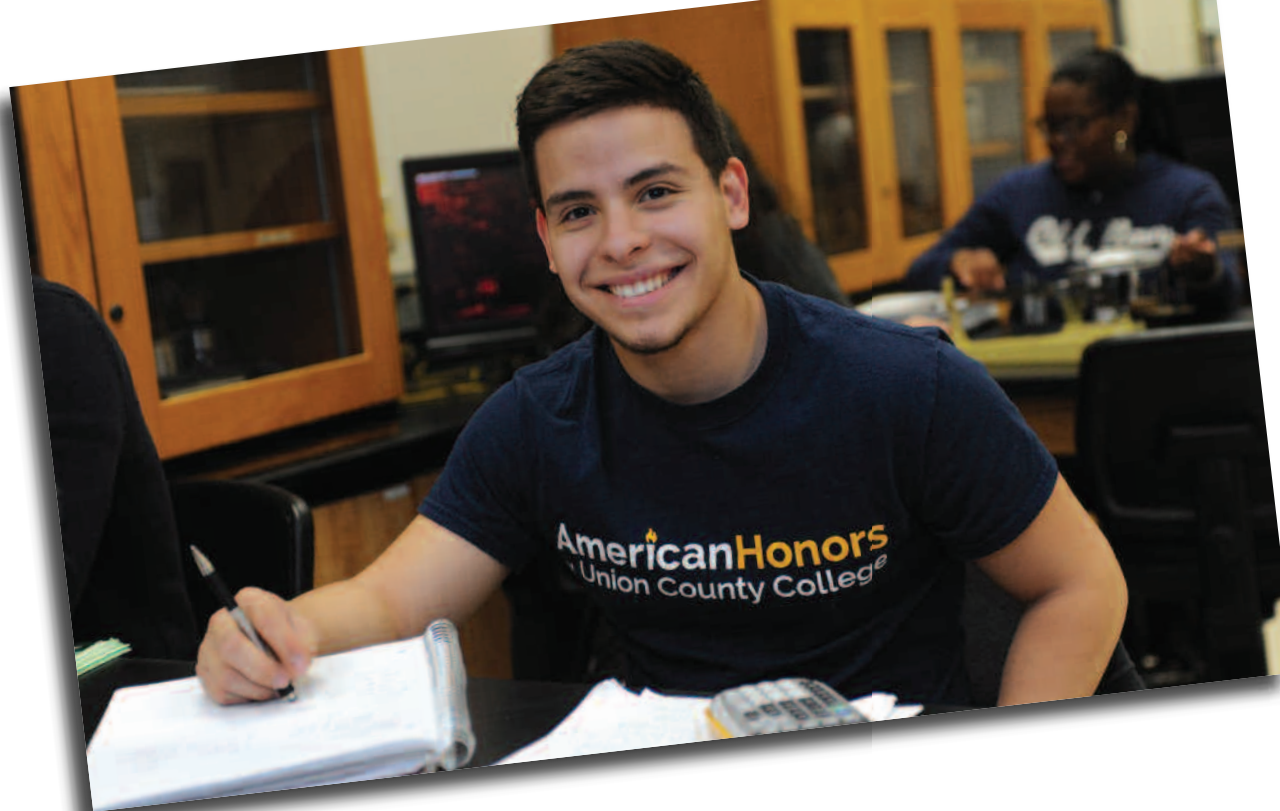
As an A.S. degree student, you'll take fewer general education classes and more career-oriented course work. The curriculum will be in technical or scientific fields; the degree is typically awarded in biological and physical sciences and requires more 200-level classes than an A.A. degree.

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 A.S.

ASSOCIATE IN APPLIED SCIENCE (A.A.S.)

A.A.S. degrees are career-oriented programs designed to give you the expertise needed for an entry level job when you complete your degree. The A.A.S. 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 more accessible and convenient.



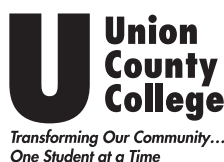
The American Honors program at Union County College helps motivated students transfer to their dream school to obtain their bachelor's degree. The Honors program cultivates in-depth learning through individual inquiry and encourages high-quality performance. Honors courses are interactive and emphasize critical thinking, analytical writing, and effective speaking.

The American Honors program is not a separate track or major; students matriculate into a Union County College degree program and take Honors courses toward fulfillment of their general education and program requirements.

Students possessing a high school diploma (or equivalent) – including new students, continuing students, international students, and transfer students – should apply directly to American Honors at Union County College. To be eligible to enter the American Honors program, students typically have a cumulative GPA of what is equivalent to a 3.25 grade point average (GPA) on a 4.0 scale and must be enrolled in a transferable degree plan.

All completed Honors courses are identified on student transcripts. Students who take these classes are exceptionally well prepared for transfer to four-year colleges and universities, for scholarships, and for success in their transfer institutions and career paths.

Contact an American Honors Admissions Officer (admissions@americanhonors.org) to learn more about joining the Honors program. For more information, visit <http://www.ucc.edu/AmericanHonors>



an American Honors college 





Taking 15 credits each semester is the way to graduate in two years with an Associate's Degree. By taking advantage of the College's "flat-rate tuition," a full-time student can take 15 credits and be on the fast track to earning their Associate's Degree at the same price as taking 12 credits a semester.

Start on the path to a bachelor's degree at Union County College. You'll complete both a two-year associate's degree and a four-year bachelor's degree in four years!

Along the way, you'll benefit from earning an associates degree, Union County College's excellent student to instructor ratio, over 60 majors to choose from, and the ability to transfer in two years with junior status to more than 500 college and universities nationwide.

Union County College offers a flat rate tuition plan, that means you can take 15 or even 18 credits for the same cost as 12. To complete an associate degree in two years, which is the equivalent of completing the first two years at a four-year institution, you'll need to take 15 or more credits each fall and spring semester. Then, you can transfer to a four-year college or university as a junior. And, you won't have used up your available financial aid – completing your associate degree in two years means additional aid should still be available for use at your four-year institution.



Finish In Time at Union County College, thanks to:

- Affordable flat rate tuition plan
- Over 60 majors
- Free on-campus peer tutoring through the Academic Learning Centers
- Excellent faculty and staff, committed to all students
- Transfer with junior level status after two years, by taking 15 credits each semester

DISTANCE EDUCATION

TAKE A CLASS ANYTIME ... ANYWHERE!



Distance learning makes the world your classroom! Earn credits from Union County College from the comfort of your own home and make progress towards your completing your degree.

Distance Education classes use technology to deliver the class content and communication between the instructor and students.

- Online courses are challenging classes that fit busy lives;
- You can study when you want and at your own pace;
- You can keep your existing job while you learn;
- You do not have to leave your family and come to a campus;
- Take a course from anywhere in the county, state or world;
- Learn through a virtual classroom;

You'll need Internet access, a well-equipped computer, and time each week to complete educational activities and scheduled assignments. You interact with faculty and classmates through e-mail and online media.

Pursue your goals without driving back and forth, or sacrificing time with your family and friends. Start today on the distance education path towards your degree.



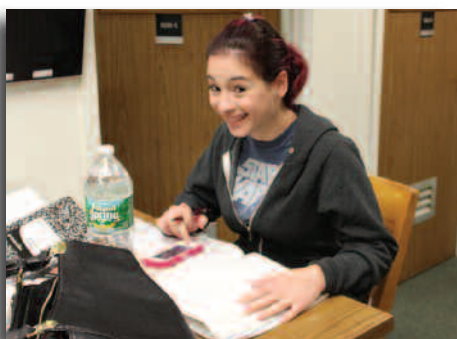
*Is Distance Education right for you?
Distance Education classes require you
to manage your time independently.
Success in these courses requires that
you be self-directed, self-motivated,
and self-confident.*



NEW STUDENT ORIENTATION

ATTEND A NEW STUDENT ORIENTATION SESSION BEFORE YOU REGISTER FOR YOUR CLASSES

New Student Orientation is required for all new students who wish to enroll full-time and have never attended college before. Students are encouraged to attend an orientation after completing the College Placement Test or providing documentation that makes them exempt from taking the test.



At Orientation you will:

- Learn about the campuses and resources available
- Register for a full-time course load
- Understand degree requirements
- Learn to navigate Web Services and Owl's Nest
- Set up a college email
- Meet your fellow students

Sign up for a session online at www.ucc.edu/go/orientation; or stop by in person at the Student Services Center at Advising, Career and Transfer in Cranford or Elizabeth.

**Questions about signing up?
Contact Advising, Career and
Transfer at advising@ucc.edu.**



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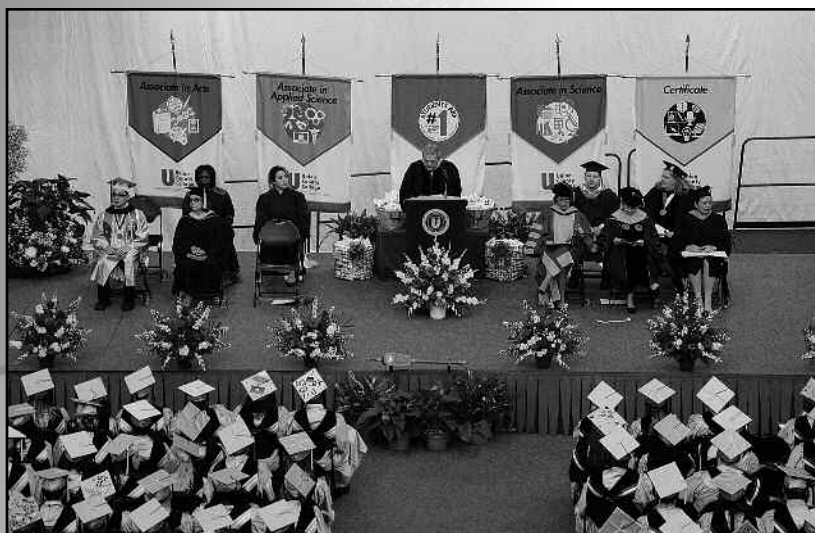
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DIRECTORIES & INDEX



This is Union



Union County College

Union County College is a public comprehensive community college. It is the oldest of New Jersey's 19 Associate Degree Colleges. The College operates major campuses in Cranford, Elizabeth, Plainfield, and Scotch Plains. It enrolls almost 30,000 credit, non-credit, and continuing education students and is accredited by the Middle States Commission on Higher Education.

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. Other 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools, Plainfield, N.J.



MACKAY
LIBRARY



History

Union County College has a remarkable history as New Jersey's first community college. The College has lived three separate lives since its birth in 1933 as a one-room night school in a Union County high school. Over the past eight decades, the College that was known by such names as Union County Junior College, Union Junior College, and Union College is now Union County College, a comprehensive community college serving 12,000 credit and 10,000 non-credit students at three campuses in Union County, New Jersey.

U.S. President Franklin D. Roosevelt founded Union County Junior College as an "emergency junior college" through the federal Works Project Administration. The College's original mission was to provide jobs for unemployed teachers and professors.

By 1936, the College became Union Junior College as an independent, non-profit, degree-offering institution governed by a Board of Trustees. The College's mission was to prepare students for transfer to earn bachelor's degrees.

In 1982, the County-funded Union County Technical Institute merged with what was now a 50-year-old junior college (going by the name of Union College) to become the Union County College we know today. The merger included the establishment of a Board of Trustees to oversee College operations as well as a separate Board of Governors to play an advisory role and to assist in the appointment of Trustees.

With the merger of the Technical Institute with the extant junior college, Union County College adopted the multi-tiered mission of an open-access, comprehensive community college. As such, the College has over 60 associate degree and certificate programs, as well as noncredit opportunities for continuing education and workforce development. The College is committed to its "open door" mission as evidenced by its providing developmental education for academically underprepared students. Since Fall 2014, the College has also attracted the County's brightest students to participate in its American Honors Program, a cohort-based degree program that provides honors students with seamless transfer to the nation's top universities.

Union County College has campuses in Cranford, Elizabeth, Plainfield, and Scotch Plains. An increasing number of students are also taking classes online, as the College offers more than 150 classes through its distance-education program.

More than half of the College's students are enrolled on the Cranford Campus's 47-acre suburban setting. The Elizabeth Campus is located in the heart of New Jersey's fourth largest city, and more than 40 percent of the College's students take at least one class in either the Lessner or Kellogg buildings in Elizabeth. The Plainfield Campus, which had been confined to a single City block since opening in 1992, doubled its footprint as a result of the 2013 purchase of property that was once an automotive parts facility.

After more than 20 years, the Cranford campus is once again under expansion, thanks to the Union County Improvement Authority. A new two-story, 40,000-square-foot facility, an extensive renovation of the historic Nomahegan building, will become the hub of the College's Cranford campus where a wide range of student services will be housed.

The new Student Services Building will provide students with a "One-Stop Enrollment Center" on the first floor that will include: Registration Services; Bursar and Payment Services; Financial Services; Disability Services; Educational Opportunity Fund Services; Advising, Career and Transfer Services and Meeting Rooms. The second floor will house an array of computer and multi-use classrooms, math faculty and departmental offices, and support facilities.

In fall 2015, the Plainfield campus opened the newly renovated building for the Health Sciences programs. Students in the Practical Nursing, Emergency Health Science, and Paramedic Programs are studying in newly built, state-of-the-art labs.

Mission

**Union County College – Transforming Our Community...
One Student at a Time.**

Our Mission is guided by our commitment to empower students to achieve their goals by providing access to high quality and affordable higher education to the residents of Union County. As a comprehensive community college with a diverse student population, we provide career programs, transfer programs, developmental education, and life-long-learning opportunities, with a focus on excellence in all that we do.

Philosophy

Union County College is committed to serving Union County in an environment dedicated to student success. The College has an open admission policy and is focused on educational excellence and the achievement of equity among the various populations served.

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.

Vision

Union County College, with its focus on student success, will be recognized as a national leader within the higher education community in providing quality education.

Values

Union County College embraces these basic institutional values that guide the fulfillment of our Mission:

Student Success – Helping every student to achieve success is our highest priority. We are committed to promoting a climate of student success and to providing an environment conducive to teaching and learning; creating and expanding educational opportunities and support services is paramount to our Mission.

Excellence – We are committed to the highest standards of excellence in all we do; we exemplify this value by providing programs and services that ensure excellence in teaching and learning, student services, and organizational efficiency.

Student Engagement – We are committed to enhancing and promoting student engagement by fully engaging our students as active learners and by providing a broad range of educational experiences both inside and outside the classroom.

Collaboration – We are committed to productive exchanges with all members of the College community and collegial relationships among our various stakeholders.

Integrity – We seek to uphold the highest standard of ethics.

Stewardship – We value and honor the trust placed in us by making wise and efficient use of resources.

Community Engagement – We are committed to encouraging civic engagement and supporting economic development in the region.

Diversity – We are committed to a diverse environment that supports an equitable education for all of our students and emphasizes respect for various cultures and individual differences.

Globalization – We seek to establish connections and relationships locally, nationally, and globally.

Goals

In an effort to achieve the College's Mission, we strive to fulfill the following goals and to assess them on a regular basis to ensure the quality of our programs and services.

General Education – Provide a relevant and coherent general education for all students. Assess student learning outcomes in scientific/critical thinking and quantitative reasoning; oral and written communication; and information literacy.

Transfer Programs – Provide transfer programs for students planning to continue their education at a 4-year institution. Assess student learning outcomes at the course and program level. Regularly evaluate and update courses, curricula, and programs.

Career Programs – Provide career programs to prepare students to enter the workforce and meet workforce needs. Assess student learning outcomes at the course and program level. Regularly evaluate and update courses, curricula, and programs.

Developmental Education – Provide developmental education for underprepared students. Continue to implement approaches that facilitate the progress of students through the developmental sequence. Assess students' success in college level courses.

Lifelong Learning – Provide courses and programs that encourage lifelong learning and are responsive to the needs of business and industry. Evaluate and update courses and programs, in response to identified needs.

Innovative Pedagogy – Develop, encourage, and support effective and creative approaches to teaching and learning. Regularly assess student learning outcomes.

Student Support Services – Provide appropriate support services for all students that ensure success throughout the students' college career. Evaluate and update key programs and services in response to student needs.

Resources – Provide the necessary resources, both public and private, to support the institutional Mission. Also, continue to partner with the Union County College Foundation to identify and generate additional resources. Regularly assess the linkage between budgeting and planning.

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. 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, 2002, 2007, and again in 2012 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 – Joint Review Committee on Education in Radiologic Technology, conducted jointly with JFK Medical Center 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 Rutgers School of Health Related Professions (SHRP);

Professional Nursing – Accreditation Commission for Education in Nursing, conducted jointly with JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools and Trinitas School of Nursing;

Practical Nursing – New Jersey Board of Nursing and also accredited by the National League for Nursing Accrediting Commission, now known as the Accreditation Commission for Education in Nursing;

Dental Assisting – Commission on Dental Accreditation of the American Dental Association, conducted jointly with SHRP;

Dental Hygiene – Commission on Dental Accreditation of the American Dental Association, conducted jointly with SHRP;

Nuclear Medicine Technology – Joint Review Committee on Educational Programs in Nuclear Medicine Technology, conducted jointly with JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools;

Paralegal Studies – Approved by the American Bar Association;

Emergency Health Sciences Paramedic – New Jersey Department of Health and Senior Services, Commission on Accreditation of Allied Health Educational Programs; seeking accreditation from the Commission on Accreditation of Educational Programs for the Emergency Medical Services Professions; and

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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools.

These organizations are specialized accrediting agencies recognized by the U.S. Secretary of Education.

Campus Locations

Union County College is a public comprehensive community college. It is the oldest of New Jersey's associate degree colleges, founded in 1933. The College operates major campuses in Cranford, Elizabeth, Plainfield, and Scotch Plains. Union enrolls almost 30,000 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. Union has had the largest non-credit enrollment among the nineteen New Jersey County Colleges.

The Cranford Campus of Union County College is situated on 48 acres on the border between the suburban communities of Cranford and Westfield on Springfield Avenue, opposite Union County's 200-acre Nomahegan Park. The campus is convenient to the Garden State Parkway, Routes 28, 27, and 1; is served by three bus routes of New Jersey Transit and is within a mile of the Cranford Station of New Jersey Transit's Raritan Valley Railroad line. The campus has on-site parking sufficient for 1,497 vehicles.

The Elizabeth Campus is situated on two sites, both within the major business district of Elizabeth, New Jersey. The first, in the Sidney F. Lessner Building, is located at 12 West Jersey Street, on a one-acre site a half block from the city's major thoroughfare. The second, in the Elizabeth I. Kellogg Building, is located at 40 West Jersey Street on 1.4 acres approximately one block west of the Lessner Building.

Both buildings on the Elizabeth Campus are within steps of the Elizabeth rail station of NJ Transit's Northeast Corridor Railroad line, and are served by multiple bus routes serving Elizabeth, which is the county seat of Union County. The College leases 600 parking spaces under a long term arrangement with the city of Elizabeth in the J. Christian Bollwage garage, which is adjacent to the Lessner Building.

The Plainfield Campus is situated on two sites across Roosevelt Avenue from each other. The first is located at 232 East Second Street on most of a city block between East Second and East Third Streets and Church Street and Roosevelt Avenue in Plainfield, New Jersey. It consists of three buildings and two parking lots that accommodate 189 vehicles. The second is located at 225 Roosevelt Avenue at the corner of Roosevelt and East Third Street. The Campus is convenient to Routes 22 and 28; is served by three bus routes, and is two blocks from the Plainfield Station of New Jersey Transit's Raritan Valley Railroad Line.

The Scotch Plains Campus is situated on 40 acres at 1776 Raritan Road, Scotch Plains, New Jersey. It consists of two buildings. The Campus is not served by any form of mass transportation but is convenient to Route 22 and major State routes.

Cranford Campus

There are eight major buildings on the Cranford Campus at 1033 Springfield Avenue, Cranford: Kenneth Campbell MacKay Library, 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, advising and faculty offices, lounges, cafeteria and faculty dining room; the Campus Center with the Roy W. Smith Theater, gymnasium, fitness center, Executive Education (teleconferencing) Center, other facilities for student activities, and bookstore; the Victor M. Richel Commons, a student life/student lounge facility, featuring an atrium and multilevel floor providing a variety of lounge and meeting spaces; James R. MacDonald Hall, which contains administrative offices; and the William Miller Sperry Observatory, which houses 24-inch reflector and 10-inch refractor telescopes, a lecture room, optical shop, and computer center.



Elizabeth Campus

The Elizabeth Campus is housed in the seven-story Sidney F. Lessner Building at 12 West Jersey Street and the five-story Elizabeth I. Kellogg Building at 40 West Jersey Street, Elizabeth. The buildings, including their lower levels, provide classrooms, a theater, lecture halls, seminar and conference rooms, allied health, computer and science laboratories, Kellogg Library and Academic Learning Center, faculty and administrative offices, faculty and student lounges, dining room, bookstore and a Student Services Center and a Career Services Center. Trinitas School of Nursing is also located on Union's Elizabeth Campus.



Plainfield Campus

The Plainfield Campus is comprised of almost a city block between East Second and East Third Streets and Church Street and across Roosevelt Avenue. The three-story Logos building contains classrooms, lecture hall, the Physical Therapy program, a state-of-the-art laboratory for American Sign Language and Deaf Studies, a student lounge, faculty and administrative offices, computing, testing facilities, seminar and conference rooms. The Annex building contains the Library, Academic Learning Center, offices, bookstore, and cafeteria. The Health Sciences Building across Roosevelt Avenue contains instructional space for Practical Nursing, Emergency Medical Technician/Paramedic Training, Allied Health labs, student lounge, and faculty offices.



Scotch Plains Campus

The College shares a 40-acre campus in Scotch Plains at 1776 Raritan Road, Scotch Plains with the Union County Vocational Technical Schools and the John H. Stamler Police Academy. Union County College and Rutgers University jointly operate the Regional Health Education Center in the College's 65,000 sq. ft. Health Technologies Building, and it has also been designated as the fifth campus of Rutgers University. It provides classrooms, lecture hall, seminar and conference rooms, allied health and science laboratories, library, faculty and administrative offices, dining room and Campus Center.



Supporting Organizations

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 former student with 30 credits or more may join the Union County College Alumni Association. For dues of only \$15 for three years, or for a Lifetime Membership for \$125, you will become a member of a dedicated group who value the education they received at Union. Benefits of membership in the Alumni Association include:

- Membership in the state-of-the-art Union County College Fitness Center at the unbelievable price of only \$25 per semester.
- Free library privileges at all three campuses.
- Opportunities to participate in trips, events, and other projects of the Alumni Association throughout the year

For more information, call (908) 709-7505 or visit the Foundation House at 995 Springfield Ave., Cranford.

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, graduation awards, 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, visit the Foundation website at uccfoundation.org, or visit the Foundation's Facebook page at: facebook.com/unioncountycollegefoundation. The Foundation's Annual Report is available upon request.



Student Services Center

Welcome

Welcome to the Union County College Student Services Center, where we offer a wide variety of services for new, returning, or continuing students. Our qualified staff can assist students with all of the resources to enroll and be successful in one convenient location on each campus including:

- Applying for Admission
- Academic Advisement
- Registration for Classes
- Financial Aid and Scholarship Assistance
- College Placement Testing
- Disability Support Services
- Student Accounts and Billing
- Educational Opportunity Fund (EOF)
- Veteran's Benefits
- International Student Visas

Your journey begins here and the friendly and helpful staff in the Student Services Center are available to guide you every step of the way. No appointments are necessary.

Admissions Policy

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 Procedures

Applicants must complete the Union County College Application for Admission. The application for credit admission can be obtained from any of the Student Services Centers One Stop Student Development Center at the Cranford, Elizabeth, and Plainfield campuses or through the College website, www.ucc.edu.

Degree Programs

Students are required to submit the following upon applying for admission to the College:

1. Official high school diploma/G.E.D.
2. Official college transcript, if applicable.
3. Scholastic Aptitude Test, if available.

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).

4. Immunization Records. 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 Student Services Center located on the Cranford, Elizabeth, or Plainfield campus.

5. Candidates for programs leading to an associate degree are advised to complete 19 units of high school credit distributed as follows:

a. English	4 units
b. Lab Science***	2 units
c. Mathematics*	3 units
d. History	3 units
e. Foreign Language**	2 units
f. Electives****	5 units

* Candidates for STEM (Science, Technology, Engineering, Mathematics) programs are expected to have taken elementary and intermediate algebra, plane geometry, and pre-calculus.

** 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.

6. Allied Health and Nursing program applicants must apply within the required program deadline date.

7. JFK Medical Center Muhlenberg Harold B. & Dorothy A. Snyder School applicants should apply directly to the JFK Medical Center Muhlenberg Harold B. & Dorothy A. Snyder Schools; all academic processing will be handled through the Schools. The Trinitas School of Nursing application for admission must be submitted directly to the Student Services Center at any of the three campuses.

8. After submission of the Union County College applicant and before enrolling in courses, placement testing in English and Math are required, unless a student meets the exemption criteria. The results of the test will not affect admission to the College (see Testing and Placement).

9. Applicants with a disability are urged to seek an interview with the Coordinator of Services for Students with Disabilities. The Coordinator is located in the Student Services Center at the Cranford Campus and may be available upon appointment at Plainfield and Elizabeth campuses.

Admission to Health Sciences Programs

1. Admission to these programs requires additional criteria for selection and include Practical Nursing, Physical Therapist Assistant, Paramedic, JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools, Trinitas School of Nursing, and Cooperative Programs with Rutgers – The State University of New Jersey.

2. Students in the Health Sciences programs are required to attend an orientation session.

3. Distinct grading policies may exist in the nursing and allied health programs which differ from other College courses and programs. Specific information may be found in the course syllabi and/or handouts.

4. Health Sciences policies may supercede College policies.
5. Clinical agencies require that students complete criminal background checks, which must be completed before entrance into the clinical portion of the nursing and allied health programs. These background checks are completed by an outside vendor and the results will be shared with the school and the clinical agencies. It is the sole discretion of clinical agency personnel to determine if students are able to provide patient care, based upon the results of the criminal background check. Students who are denied clinical placements will be dismissed from the Health Sciences program.
6. Clinical agencies also require that students have medical clearance. Students will be informed regarding the specifics of the physical examination, laboratory testing, and vaccinations that are to be completed by a physician or nurse practitioner.
7. CPR for the Health Care Provider and individual malpractice insurance coverage may be required for clinical patient care experiences. Further information will be provided during program orientations.

Special Admissions Programs:

- American Science Language and Deaf Studies, A.A. Degree
- American Sign Language and Deaf Studies, Certificate
- Dental Assisting, Certificate
- Educational Interpreter Program, Certificate of Achievement
- Cooperative Programs in Professional Nursing, A.S. Degree
- School of Nursing, A.S. Degree
- Trinitas School of Nursing, A.S. Degree
- Paralegal Studies, Certificate of Achievement
- Practical Nursing, Certificate
- Psychosocial Rehabilitation and Treatment, A.S. Degree
- Radiography, A.S. Degree
- Respiratory Care Program, A.S. Degree
- Diagnostic Medical Sonography, A.S. Degree

Testing and Placement

The College 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-wide identification number acquired by applying for admission and photo identification to enter the Academic Testing Center for testing.

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

Union County College requires that the following students take the College Placement 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 courses that would result in the accumulation of 12 or more credits;
- (C) All transfer students must demonstrate proficiency in basic skills math through prior 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 proof of math proficiency, 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;
- (D) The College employs additional measures in order to exempt students from developmental coursework:
 - A student who presents SAT (Scholastic Achievement Test from the College Board) scores of at least 540 in the College Reading and 530 in Math will be exempt from the College Placement Test.
 - A student who graduated with a 3.0 from high school within the last five years and fulfilled the appropriate academic requirements will be exempt from the College Placement Test.
 - A student with a previously received bachelor's degree from an accredited US College will be exempt from the College Placement Test.
 - A student who will receive transfer credit from another College for one semester of freshman English and/or freshman Mathematics will be exempt from the appropriate section of the College Placement Test.
 - A student who has satisfactorily completed developmental courses in English and/or Elementary Algebra at another College will be exempt from the appropriate section of the College Placement Test.
 - A student who has taken the Accuplacer with qualifying test scores at another College in New Jersey within the past year will be exempt from the College Placement Test.
 - A student who has demonstrated proficiency in English and/or Math through previous placement test scores will be exempt from the appropriate section of the College Placement Test.
- (E) 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.

International Students Applicants

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 also must provide:

- a) Official transcripts from all colleges or universities attended.
- b) An International Student Advisor Report 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.

Effective fall 2016, Union County College will implement an English Proficiency Requirement for applying for the Form I-20, Certificate of Eligibility for F-1 Nonimmigrant Student Status. For prospective students applying from abroad who do not have English as their first language, a satisfactory performance on the Test of English as Foreign Language (TOEFL) is required for applying for the Form I-20.

A minimum TOEFL score of 30 on the Internet Based Test is required, or a minimum score of 380 on the Paper Based Test or 3.5 on the IELTS exam is required. Prospective students applying from abroad must submit an official TOEFL score report to the College. The test must have been taken within one year immediately preceding the requested semester of admission. To obtain information on taking the test, visit the following website <http://www.toefl.org>. The Designated Institution code for Union County College is 00264300.

Applicants currently in the United States may take Union County College's free ESL placement test administered on campus. All admitted students who have achieved the required TOEFL score may be required to complete the College's ESL placement test after arriving on campus and before they enroll in their first semester at Union County College.

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 may require an appointment during times of heavy registration. All transfer students must have an official transcript at the time of their review.

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. Students may not matriculate in the same program for which they currently hold an approved degree.

Veterans Applicants

Union County College celebrates Veterans and encourages admissions and enrollment. Union County College participates with the VA provisions of the Federal Laws which entitle veterans 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 all campuses before registering for classes to ensure all requirements are met.

Bridge Program – Dual Enrollment

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 advisor 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 Recruitment and Admissions, Records, and Registration Offices on any campus. Students will be required to submit a Union County College application for admission with the completed Bridge form. Acceptance will be based on the results from the placement test or SAT scores and submission 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, see Dual Admissions Agreements, page 46.

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 two consecutive semesters and seeks reinstatement need only to complete an application form. Students who withdraw and intend to re-register for the following semester need only 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.



Registration

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

New freshmen and current students who enroll have access to a member of the advising staff to assist in the scheduling and completion of the registration form. The advisor will assist the student with identifying 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. Online registration is available to most students and we recommend students take advantage of Web Services. It is the student's responsibility to be aware of the registration, withdrawal refund policy, etc. 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 see an academic advisor for approval. Students registering for over 21 credits must obtain approval from the appropriate Division Dean.

Candidates may register at 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 days, evenings, and weekends.

A current student who wishes to change his/her curriculum must complete a program change form with an advisor and meet all requirements. New students wanting to matriculate (declare a major), and who have not done so at time of application submission are encouraged to see an academic advisor.

Students who, after having registered, decide not to attend before the beginning of the ensuing semester may drop or add courses through Web Services, or meet with an advisor to complete a drop/add form. All forms must be submitted to the Student Services Center on any of the campuses 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, if applicable.

JFK Medical Center Muhlenberg Snyder 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 Medical Center Muhlenberg Snyder Schools registration office. Practical Nursing and Allied Health students will receive specific information on the policies and procedures for registration, class schedule changes, and withdrawals. Union County College/Rutgers SHRP students must meet with an admissions officer or advisor to discuss pre-requisite courses required for the program. Acceptance is based on approval by the Rutgers SHRP 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.

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. Full and part-time students who have selected their program of study as undecided must change their program to a college program after completing no more than twelve degree credits or will have their program changed by the College to Liberal Studies.

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.

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

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.

Program Change Requests

The Program Change Process is coordinated by the Advising, Career, and Transfer Services department. 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 Program Change form with an advisor. Students requesting a change in their major to an allied health program may be required to complete a new College application.

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 a scheduled class(es) within the published registration dates posted on Web Services.

Students who are in the Educational Opportunity Fund Program (EOF), Health Programs, JFK Medical Center Muhlenberg Snyder Schools, Trinitas School of Nursing, and Rutgers SHRP will meet with and do all registrations through the program advisor.



Financial Information

Welcome

Union County College is committed to providing a quality education at an affordable price. The Office of Student Accounts is here to help you understand the costs associated with your educational experience and to assist you in being successful. Through the College's Web Services Financial Information Links, you can easily view your charges, payment history, refunds, any related holds on your account, and pay your bill by credit card or by e-check. In addition to our online services, we are here, onsite, to answer any questions you may have about your tuition and fees, including managing payment plan options. Come visit us during our office hours on the College's Cranford, Elizabeth, or Plainfield campuses.

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/tuitionFeesBooks.aspx

Please visit the Office of Student Accounts on the College's Cranford, Elizabeth, or Plainfield campus, call (908) 709-7063 or email StudentAccountsOffice@ucc.edu for more information. For privacy reasons, please use your Owl's Nest email account.

Payment Policies

- Student who do not make payment or have sufficient financial aid by the posted payment deadline for the semester could be de-registered from their courses.
- Students who register after the deadline are expected to make payment or have sufficient financial aid at the time of registration or they could be de-registered.
- Students who register less than a week before the start of a semester are not subject to de-registration and are responsible for all charges on their account.

Payment/Drop Procedures:

When you register, you are agreeing to purchase a seat in each class you select, and 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.

You can view your account balances online at any time by going to the Financial Information link in the Web Services section of Owl's Nest.

Payment Options:

The College accepts Visa, MasterCard, American Express, and Discover in addition to cash, checks, and money orders.

- Payment of a prior semester balance must be in cash, certified check, money order, or by credit card.
- To pay using someone else's credit card, you must have the written permission of the cardholder.

- 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.
- The College reserves the right to require payment in cash when circumstances so warrant.
- Credit card and personal check (E-check) payments should be made online through Web Services.

Tuition Payment Plan

To ease the financial burden of attending, the College offers a Tuition Payment Plan for Fall and Spring semesters.

- Students must be registered for three or more credit/hours.
- There is a non-refundable fee to participate. The fee will be waived for students who sign up by the semester payment deadline.
- Payments are due in monthly amounts. The initial payment plus the fee (if applicable) is required upon sign up.
- The number of available monthly payments (up to a maximum of four) and the required down payment percentage depends on when the plan is established. Check with the Office of Student Accounts for specific dates and amounts for each semester.
- Students must visit the Office of Student Accounts to make the initial payment and to sign a promissory note to participate in the Plan. Subsequent payments can be made online.
- Students who fail to make payment by the date(s) specified on the promissory note will be subject to late fees. Once a late fee has been added to an account, the student will not be eligible to participate in the Plan in future semesters.
- Students who make registration changes after a payment plan has been set-up must report to the Office of Student Accounts to recalculate their plan.

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 fees, court costs, and legal fees. The cost of collection can add as much as 40% to the account 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 the debt is settled.
- In the case of those academically eligible to graduate, issuance of the diploma will be withheld until the balance is paid in full.
- The student is liable for the full retail-price replacement of any materials, which cannot be returned because of loss or damage.

Penalty Fees

- **Return Check Fee** – A Return Check Fee will be assessed if the bank does not honor a check. Students will be required to pay all current and future balances in cash, certified check, money order, or credit card 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 Tuition Payment Plan will not be eligible for future Plan participation.

Refund Policy

- Refunds can take up to four weeks to be processed and for checks to be drawn. Checks will be mailed to students at their address of record. 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.
- Courses officially dropped prior to the first scheduled day of a semester will result in a 100% credit of tuition and course fees.
- Courses Dropped After the Start of a Semester

Fall and Spring Regular Semesters – 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 course fees. After the fifth day of the semester, no reduction in charges will be made for dropped courses.

Late Start, Summer, Winter, and Seven-Week Semesters – Courses officially dropped on the first scheduled day of the semester will result in a 50% credit of tuition and course fees. After the first day of the semester, no reduction in charges will be made for dropping courses.

Residency

Tuition charges will be computed based on a student's residency on record on the first day of a semester:

- **Union County Residents:** Students with an address in Union County for a period of 12 months prior to the first scheduled day of class for a semester.
- **Out-of-County:** Students who for a period of 12 months prior to the first scheduled day of class for a semester have an address outside of Union County, but within the United States.
- **International:** Students who for a period of 12 months prior to the first scheduled day of class for a semester have not resided in the United States.

Book Allowances

- Students who have Financial Aid awards (excluding college work study or federal work study) that are greater than their tuition and fee charges for the semester, may be eligible for a Book Allowance.
- Available for the first three weeks of Fall/Spring semesters, and for the first two weeks of Summer semesters.
- The Program is offered as an aid to assist students with the cost of textbooks and essential course related supplies.
- Book Allowance purchases are charged against the student's anticipated 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.

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 the following forms to qualify:

- Certification of Inability to Admit which must be completed by the Registrar or Admissions Officer of your home county college.
- Certification of Residency which 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 submit the 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 documents.



Financial Aid

Welcome

Financial Aid services administer a number of state and federal financial aid programs to help Union County College students meet their college expenses. Financial aid awards include grants, scholarships, loans, federal work study, or any combination of these. All communication to students concerning financial aid is sent to their Union County College email, and students are responsible for checking their email regularly. Although the financial aid staff makes every effort to inform students of financial aid guidelines, the ultimate responsibility for complying with federal aid regulations is that of the student. Financial aid awards are based on need. Students are encouraged to apply for financial aid before April 15 to be considered for the maximum eligibility.

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 and State Application

Your first step is to complete the FAFSA (Free Application for Federal Student Aid) at www.fafsa.gov. Remember to enter the school code of 002643 for Union County College so we receive your FAFSA electronically. You will need to apply for a Personal Federal Student Aid ID (FSA-ID). If you are a dependent student both you and one parent will need to apply for separate FSA-IDS and you will use the FSA-IDS to electronically sign your FAFSA. You and/or your parents must complete their federal tax return. While completing the FAFSA on-line, you will import your and/or your parents' federal tax information from the IRS using a secure data retrieval tool (DRT).

Once you reach the Web confirmation page, locate the link entitled "Optional Feature – Start your State Application." Respond to the questions for you and/or your parents and submit the additional information to the State of New Jersey.

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 hundreds of institutional scholarships to our students. If you are interested in applying for the Scholarship, please log into your Owl's Nest portal (need to login), and click on the Scholarship application link on the left hand side.

Step 3: Review your Student Aid Report

Once you have submitted your FAFSA, the U.S. 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.

Verification: The U.S. Department of Education randomly selects FAFSA submissions (FAFSA) for further review. Students selected are notified by the U.S. Department of Education and by email from the Union County College Financial Aid Services account. If selected for Verification, students must submit documentation (i.e.,

tax return, transcript, verification worksheet, etc.), and a review is conducted by Financial Aid Services. If errors are found, the financial aid staff must submit corrections to the U.S. Department of Education. This may decrease the estimated award, and the student will be liable for the balance. Verification must be completed prior to receiving payment of any federal grant, loan, or state awards. Failure to submit the required documentation will result in the denial of all federal and state financial aid including student loans.

Step 4: Review your Student Eligibility Notice

The U.S. 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

All communication from the Financial Aid Office is in an electronic format. This means, as a Union County College student, it is essential to check Web Services to view your financial aid status and/or any documents required to complete your financial aid application AND to check your Owl's Nest email account daily because all communication we send to a student is sent through your Owl's Nest email.

Financial Aid Application Deadlines

A Free Application for Federal Student Aid (FAFSA) must be completed each year and it serves the entire academic year (Fall, Spring, and Summer terms). The FAFSA becomes available each October for the following fall semester and remains available through the following summer. We recommend that you complete your FAFSA as soon as possible.

To expedite the accessibility of federal student aid, which includes federal grants, loans, and work-study opportunities, new regulations require students and parents to use their 2015 tax returns for the 2017-2018 academic year. **If you previously received a Tuition Aid Grant (TAG), you will need to complete your FAFSA by April 15, 2017 in order to be considered for the grant in the next academic year 2017-2018).** 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.

Eligibility

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

- Be accepted as a student in an eligible certificate or associate degree program.
- Be making satisfactory academic progress for financial aid purposes.
- Have a high school diploma, General Education Development (GED) certificate, or a secondary school completion credential for home school.
- Be a U.S. citizen or eligible non-citizen (this includes permanent resident status).
- 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.

Cost of Attendance for the 2016-2017 Academic Year

Below is the estimated cost of attending Union County College for an average full-time student (12 credits) for one year (2 semesters). The total amount is used to determine financial aid awards based on the student's eligibility index. Amounts are subject to change.

	Independent Student	Dependent Student
Tuition and Fees	\$4,620	\$4,620
Books and Supplies	\$1,200	\$1,200
Room and Board	\$7,250	\$1,900
Transportation	\$1,000	\$1,000
Living Expense	\$1,000	\$1,000
Total Budget	\$15,070	\$9,720

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 AID PROGRAMS – TITLE IV

Federal Pell Grant – The Higher Education Act of 1972 established this grant program to provide aid to financially needy students attending college. Students must meet eligibility requirements and must be pursuing a degree program or eligible certificate program. Students attending more than one institution in an award year may only receive a Pell grant at one school. The maximum federal Pell grant for the 2016-2017 academic year is \$5,815 depending on your financial need. This grant may be adjusted based on changes in the number of credits that you register for in a term.

Federal Supplementary Educational Opportunity Grants (SEOG) – This program awards funds to undergraduate students with the greatest 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-\$300, on a first-come, first-served basis.

Federal Work Study – The Federal Work-Study Program provides employment opportunities for students who need additional funds to help meet their educational expenses. To be considered as a candidate for the work-study program, a student must (1) file a FAFSA, (2) be a U.S. citizen or permanent resident, (3) be enrolled in an undergraduate academic program, (4) be registered for at least six (6) or more credits, (5) meet the financial aid standards of satisfactory academic progress, and (6) be in good academic standing.

Federal Direct Loans – Union County College participates in the William D. Ford Federal Direct Loan Program, commonly

known as direct lending. The College's participation in this program allows students to borrow directly from the U.S. Department of Education. The Direct Loan program enables eligible applicants and their parents to obtain a student loan (Subsidized or Unsubsidized) or parent loan (PLUS) to meet their educationally related expenses.

2016-2017 INTEREST RATES

Subsidized Loan*	3.76%
Unsubsidized Loan	3.76%
PLUS (Parent) Loan	6.31%

*With a first disbursement date after July 1, 2016.

For application instructions, please go to the Financial Aid page on the College's website, www.ucc.edu.

STATE OF NEW JERSEY FINANCIAL ASSISTANCE PROGRAMS

To receive funds from the State of New Jersey, students must register for a minimum of six (6) credits each semester. Academic progress regulations are the same as the federal regulations. Progress is monitored at the end of each semester.

Tuition Aid Grant (TAG) – The Tuition Aid Grant provides financial assistance to full-time college students or part-time students (enrolled for at least 6 credits) who have been residents of New Jersey for twelve (12) consecutive months prior to enrollment. To be considered for an award, a student must complete a FAFSA and a Tuition Aid Grant Application. The TAG application can be accessed after the student has submitted his/her FAFSA or by going to the Higher Education Assistant Authority website, www.hesaa.org.

Governor's Urban Scholarship Program – The Governor's Urban Scholarship is a merit award available to students who rank in the top 5.0 percent of their high school graduating class and attain a grade point average of at least 3.0 at the end of the junior year in high school, file a FAFSA within established deadlines, and have a New Jersey Eligibility Index below 10500. To qualify, applicants also must graduate from a traditional public, public charter, county vo-tech or nonpublic school, and reside in Asbury Park, City of Camden, East Orange, Irvington Township, Jersey City, Lakewood, Millville, Newark, New Brunswick, City of Trenton, Paterson, Plainfield, Roselle Borough, or Vineland.

NJ STARS – This merit-based program is offered to students who at the end either of their junior or senior year are within the top 15% of their New Jersey high school graduating class. The scholarship may cover all or a part of the student's tuition and fees. For more information, go to www.njstars.net.

Educational Opportunity Fund (EOF) – Instituted and sponsored by the State of New Jersey, the Educational Opportunity Fund is an academic support program providing access to higher education for students who show potential but who need additional support services and financial aid to succeed academically. All students accepted into the EOF Program must be pursuing a degree, be residents of the State of New Jersey for at least one year, meet all program requirements, and be citizens or permanent residents of the United States.

UNION COUNTY COLLEGE SCHOLARSHIPS

Union County College offers a wide variety of scholarships to help you achieve your educational goals. Last year, Union County College awarded hundreds of scholarships to our students. Scholarships are a form of financial aid that does not have to be repaid.

Each scholarship has different criteria and there are scholarships available for many students. Scholarship selection can be based on GPA, major, high school, city, community service, and other criteria. 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. For more information, please view the Scholarships page of the Financial Aid website.

Rights and Responsibilities

As a financial aid recipient, you have the right to:

1. Know the correct procedures for applying for student financial aid, your cost of attendance, and the types of aid available.
2. Know how financial need is determined, what the criteria are for awarding aid, how academic progress is determined, and what you have to do to continue receiving aid.
3. Know the type and amount of assistance you will receive, how much of your need has been met, and how and when you will receive your aid funds.
4. View the contents of your student financial aid file, in accordance with the Family Educational Rights and Privacy Act.
5. Know the conditions of any loan you accept.
6. Know the terms, conditions, and pay rate for any student job you accept under the Federal Work Study Program.
7. Appeal any decision with the Financial Aid Office in regard to your application. Appeals should be filed no later than 30 days after the original notification that you have been denied aid.

As a financial aid recipient, it is your responsibility to:

1. Complete and submit application materials to the appropriate agencies within required or recommended time frames.
 - Complete your FAFSA each year at least 4 months prior to the semester that you will be attending.
 - New Jersey residents must meet all deadlines set by the New Jersey Higher Education Student Assistance Authority (HESAA). Deadlines can be found at www.hesaa.org.
 - Read all materials sent to you from the Financial Aid Office and other agencies awarding you aid. Read, understand, and keep copies of all forms you sign.
2. Know and comply with the rules governing the aid you receive. These rules include but are not limited to:
 - You must not be in default on any prior educational loan.
 - You must not owe a refund on any Federal Aid.
3. Provide additional documentation, federal **tax transcripts**, W-2's, and any additional information if requested by the Financial Aid Office or HESAA. Be sure to provide the information to the office that requested it.
4. Comply with the provisions of any promissory note and all other agreements you sign.

5. Complete the registration process each semester by the start of the semester in order to ensure availability of all student aid funds you have been awarded.
6. Use student financial aid proceeds solely for direct educational costs and related living expenses.
7. Know the implications that dropping a course or withdrawing from Union County College will have on your student financial aid.
8. Students who are receiving federal financial aid funds must make satisfactory academic progress towards completing their degree program in a timely manner. You must meet these minimum requirements in order to participate in the federal aid programs. Union County College offers a number of resources to help you succeed academically and we expect that you will fully utilize them. These resources include:
 - Academic Testing Center
 - Disability Services
 - Advising, Career, and Transfer Services
9. Report private sources of student financial aid to the Financial Aid Services within the Student Services Center. Please submit a copy of your outside scholarship award letter to the Student Services Center.
10. Keep your local and permanent addresses current with the Admissions Office.
11. For Direct Loan borrowers, when you graduate or withdraw from school, remember to complete exit advising at www.studentloans.gov in order to obtain valuable information about repaying your loans.

FINANCIAL AID POLICIES

Attendance

All students receiving financial assistance must attend classes regularly.

Return of Title IV Funds Policy

The term "Title IV Funds" refers to the federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: Unsubsidized Direct Loans, Subsidized Direct Loans, Direct Plus Loans, Federal Pell Grants, and Federal SEOG grants.

The Return of Title IV Funds policy applies to financial aid students who withdraw from all classes in a semester. A student's withdrawal date and amount of Title IV funds earned are determined by:

- the date the student began the institution's withdrawal process at the Student Services Centers located on each campus; and
- the student's last date of attendance at a documented academically related activity; or
- the midpoint of the semester for a student who leaves without notifying the institution.

Title IV is prorated based on the number of days attended up to greater than the 60% point in the semester. Title IV aid is viewed as 100% earned after that point in time. Notices of possible refunds and adjusted bills will be sent to the student's home address following withdrawal.

Institutional Responsibilities in Regard to the Return of Title IV Funds include:

- Providing each student with the information given in this policy.
- Identifying students who are affected by this policy and completing

the Return of Title IV Funds calculation for those students.

- Returning any Title IV Funds that are due the U.S. Department of Education Title IV programs.

Student's Responsibilities in Regard to the Return of Title IV Funds are as follows:

- Students are responsible for the balance of unearned Title IV Aid that was disbursed directly to the student and in which the student was determined to be ineligible for via the Return of Title IV calculation.

Satisfactory Academic Performance and Progress

Federal regulations require all financial aid recipients to maintain satisfactory academic progress in a course of study leading toward a degree or certificate. Failure to meet one or more of the established standards of Satisfactory Academic Progress (SAP) will make a student ineligible for financial aid. Financial aid SAP status includes all previous academic history, even if the student did not receive financial aid. Statuses are updated at the end of each semester, including summer. It is the student's responsibility to monitor academic progress. Although the Financial Aid Services notifies students of their status, students who do not meet the standards will be ineligible for financial aid even if they do not receive correspondence.

Satisfactory Academic Progress Standards

Grade Point Average (GPA): Students must maintain a 2.0 cumulative GPA on all hours attempted at Union County College.

Completion Rate: Students must complete 67% of all hours attempted at Union County College. See below for how the percentage completion is calculated.

Credits Attempted/Earned	Percentage Completed
24/12	50%
24/20	83%
60/40	66%
60/55	90%
97/60	61%

Maximum Time Frame: Students receiving financial aid must complete their program of study within a reasonable time frame. The maximum time frame to complete a program is 150% of the published length of the academic program or certificate (including all transfer credit hours).

Program	Credits Required	Max Credits Allowed
Associates	60	90
Nursing	75	112.50

Consequences of not meeting Satisfactory Academic Progress (SAP)

Financial Aid Warning – The first time that a student fails to meet the SAP standards of a cumulative 2.0 GPA, 67% completion rate, or maximum time frame, he or she will be placed on financial aid warning status and be notified of their status. The student will remain eligible for financial aid for one semester while on warning. If a student fails to meet the SAP standards of a cumulative 2.0 GPA and 67% completion rate after being placed on financial aid warning status, then he or she will no longer be eligible for financial aid.

Exceeds Maximum Time Frame: If a student fails to meet the Maximum Time Frame standard, then he or she will no longer be eligible for financial aid. Failure to meet one or more of the established financial aid standards of satisfactory academic progress will make a student ineligible for financial aid. Those students will be responsible for payment of their own tuition and fees.

Satisfactory Academic Progress Appeal: When a student loses financial aid eligibility because he or she failed to make satisfactory progress, the student may appeal that determination on the basis of: injury or illness, the death of a relative, or other extenuating circumstances. An appeal submitted by a student must explain why he/she failed to make satisfactory progress and what has changed that will allow the student to make satisfactory progress at the next evaluation. The appeal along with the Educational plan will be evaluated on an individual basis to determine if the student has demonstrated why they were unable to meet the standards.

Financial Aid Probation: When a student submits an appeal and their appeal is approved based on the described extenuating circumstances, then the student is placed on probation for one term and can receive financial aid for that term. It is possible that a student could be placed on probation more than once in his or her academic career, if there are successful appeals submitted and evaluated by the Financial Aid Services. At the end of the term on probation, the student must meet the Satisfactory Academic Progress requirements or must be meeting the requirements of the academic plan. Students who are placed on probation must:

- Achieve at least a 2.0 Grade Point Average for the term of probation; and
- Successfully complete ALL courses attempted.

A student who meets the above requirements of the Educational plan can have the probation status continued for another term. A student who does not meet these requirements would have to successfully appeal to be placed on probation. This appeal must explain why he or she failed to make satisfactory progress and what has changed in their situation that will allow them to make satisfactory progress at the next evaluation as well as detailed information about why the student failed to meet the requirements of the probation period, including what had changed and why the student will be able to meet the terms of the educational plan.

Withdrawals – All withdrawals are monitored by the Financial Aid Services. Students who withdraw from courses and reduce their course loads after registration will have their financial aid reduced accordingly. Charges and credits are adjusted according to the College Refund Policy. Federal aid is adjusted according to the Return of Title IV Funds Policy regulations.

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 withdrew 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.

Leave of Absence Policy

Leave of Absence (LOA) is a federally mandated policy for all students who receive Title IV federal financial assistance (Federal Pell Grants, Federal Direct Subsidized or Unsubsidized Loans, Federal Parent Loans, and Student Educational Opportunity Grants). Under certain conditions (such as personal, military service, illness or health, employment, humanitarian or church service, family responsibilities, and financial obligations) students may request a LOA from the College.

A LOA will allow the student's status to remain as "in school," making the student eligible for a deferment on student loans during the approved time while not actively registered with the College. However, the specific requirements by which the student agreed to abide at the time any financial aid was accepted will remain in effect (approved students are advised to contact their loan servicer(s) for repayment information and grace period expiration policy).

For LOA – six months (180 days) or less:

- Students' Federal loans will enter into grace. Federal Direct Student Loans have a six month grace period, and Federal Perkins Loans have a nine month grace period.
- During a grace period, students are not required to make payment on their federal student loans.
- If a student returns to school (at least half-time) within the grace period, their federal student loans re-enter into an "in school" status. Students are not required to make payments with this "in school" status.
- Students will want to contact the lender(s) of any private student loans they may have to determine whether they are required to make any payments when they are not enrolled in classes.

The student's request for a LOA must be in writing, signed and dated, and submitted to the Director of Financial Aid. The student will submit a request prior to non-attendance unless unforeseen circumstances prevent the student from doing so. The student should drop all future registration, so as to not incur charges. The LOA must be completed and reason for requesting the LOA should be substantiated. The LOA request should give a reasonable expectation that the student will return from the LOA to complete classes. The student may submit additional supporting documentation as deemed appropriate. The following data must be provided on the LOA request:

- Complete name
- Student ID number
- Email address
- Degree program
- Semester the LOA is being submitted for
- Start and end date for the LOA
- Current enrollment hours
- Student's current standards of progress status
- Complete explanation for the LOA request

The Director of Financial Aid will review the request and either approve, deny, or request additional information within seven (7) business days of receipt. The student will be notified of the decision by email. Once the LOA is approved the student must attend a LOA advisement session provided by one of the College's Financial Aid Counselors. The student will need to schedule that appointment and attend to complete the LOA request process.

Retaking Coursework

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

Remedial Coursework

Remedial coursework prepares a student for study at the postsecondary level. Schools are permitted to count up to one academic year's worth of remedial courses as eligible for federal financial aid.

For the purpose of this limit, that translates into 30 semester hours. Once a student has completed 30 TOTAL semester hours of remedial coursework, any additional hours of remedial courses cannot be included in financial aid eligibility.

At Union County College, any courses with a Developmental (DV) designation are considered to be remedial courses, for financial aid purposes. After a student has completed 30 credit hours of Developmental Coursework, any further hours are deducted from the student's enrollment in a term.

Book Allowance

A book allowance is offered as an aid to assist students with the cost of textbooks and essential course related supplies and is available for the first three weeks of Fall/Spring semesters, and for the first two weeks of Summer/Mini semesters. If your financial aid award (excluding college work-study or federal work-study) is greater than the tuition and fees charged for the semester, you may be eligible for a book allowance. Students should be financially prepared for out-of-pocket expenditures when their maximum book allowance has been reached.

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 the student's financial aid award is reduced or cancelled, all book allowance purchases are the financial responsibility of the student. Some students may not be eligible to receive a book allowance but may be covered under the book voucher program. For more information, visit the Student Services Center on any of the three campuses.

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. 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.



Governor's Urban Scholarship: The 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 Owl's Nest only. After signing in to Owl's Nest, click the "Online Scholarship Application" in the upper left-hand corner of the screen to apply. Students are urged to complete the applications 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 Financial Aid Office,
- 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, foundation@ucc.edu.

Current Union County College Scholarships as of 12/2015

Dr. Mandana Ahsani Scholarship
ALC Scholarship
Alumni Association Part-Time Scholarship
Alumni Scholarship for Degree Completion
AAI Members Memorial Scholarship (Amateur Astronomers, Inc.)
American Association of University Professors School #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
Frank and Penny Bolden Scholarship
Cheyanne "Shay" Bond Memorial Scholarship
Martha B. Bracher and Marguerite Hesseman 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
Business Association of Union County College Scholarship
Rosemary and Eugene Carmody Scholarship
The Celgene Future Caregiver Award Scholarship
Cento Amici Scholarship in Memory of John Neiswanger
Mary Wilde Chewning Memorial Scholarship
The Christ Fellowship Kingdom Advance Scholarship
Coca-Cola Scholarship
Colonna/Cormier Scholarship
ConnectOne Bank Scholarship
ConnectOne Bank Completion Scholarship
Cooperative Counseling Services Scholarship
Camille and Robert Cormier Scholarship
Corporate Chefs Scholarship
Prof. Pedro X. Cosme Psychology-Social Science Scholarship
Daniel G. Covine Memorial Scholarship
Judge Cuddie E. Davidson, Jr. Memorial Scholarship
Charles T. Davis, Sr. Scholarship
Lindsay Della Serra Memorial Scholarship
Rachel Ann Drinkwater Scholarship
Dubitsky-Belmonte Scholarship
Elizabethtown Gas Fueling the Future Scholarship
Engineering/Technology/Architecture Department Scholarship
Faculty Scholarship
Farrell Family Scholarship
Donald J. & Margaret V. Feaster Scholarship
Fireman's Mutual Benevolent Assoc. Local 37, Cranford Scholarship
Dr. Sondra Fisinger Scholarship
Dr. Sondra Fisinger American Honors Scholarship
T.C. Flynn & Megan Ryan Morris Scholarship
The Barbara H. Foley Scholarships #1 and #2
Fox Family Scholarships #1 and #2
Freeholder Scholars Program
Thomas Gallagher Scholarship

Dorothy Gasorek Memorial scholarship
 Arthur Geilfuss Memorial Scholarship
 Emma Geilfuss Memorial Scholarship
 General Endowment Scholarship
 Gibson Family Foundation Scholarship
 The Thomas Glasser Foundation Scholarships #1 and #2
 Dr. Edward Golda Scholarship
 Robert M. Gray Memorial Scholarship
 John & Patricia Griffith Scholarship
 Dr. Toby Grodner Scholarship
 Richard & LaVerne Haberski Scholarship
 Charles J. Hanak & Mary Hanak Memorial Scholarship
 Lavinia & Michael Hand Scholarship
 Robert F. Hand Scholarship
 Thomas H. Hannen, Sr. Scholarship
 Margaret B. Hanson Memorial Scholarship
 Dr. Elizabeth Hawthorne Women in Cybersecurity Scholarship
 Professor Donald Hedeon 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
 Shirley Hirschfield Memorial Scholarship
 Hispanic Law Enforcement Association of Union County, Inc.
 Edward & Patricia Hobbie/Loretta Gleason Castaldo RN,
 Nursing Scholarship
 Alice Foster Hollie and Barbara White Davis 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
 Sharon Karmazin Scholarship
 Leonard James Keating Memorial Scholarship
 J.C. Kellogg Foundation Scholarship
 J.C. Kellogg Foundation Scholarship for American Honors
 Jean Kellogg Scholarship
 Kiwanis Luerich Scholarship
 Barbara Ann Kloss Scholarship
 Ferdinand Klumpp Scholarship
 Fred and Betty Kopf Scholarships (4)
 Raymond B. and Lillian B. Krov Scholarship
 Esther and Jerome Krueger Scholarship
 Harry Lampel Scholarship for Part-time Students
 Dolores M. Lanzner Memorial Scholarship
 Robert and Gloria Law Scholarship
 Lawrence-Collins Scholarship
 The Legacy Scholarship
 Lessner Family Scholarship
 Leigh and Julian Levitt 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 Scholarships
 Manley-Winsor 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 Scholarship at Union County College
 New Jersey Student Tuition Assistance Reward Scholarship (NJ STARS)
 Norelli Psychology Scholarship

Northfield Bank Foundation Scholarship
 Sue Novak, RN, CHPN Nursing Scholarship
 Paul J. O'Keeffe Memorial Scholarship
 Dr. Saul Orkin and Maria Lydia Orkin Memorial Scholarship
 Osiecki Excel Scholarship
 Susan Pancurak Memorial Scholarship
 Pepsi Scholarship
 Perry Family Scholarship
 Frank J. Peterpaul Scholarship
 Vincent C. Piro Memorial Scholarship
 Emil Prazak Memorial Scholarship
 PSEG Foundation Scholarship
 Public Safety Department 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
 Peter Rozano Fund Scholarship
 The Sabatino Family Scholarship
 Schering-Plough Foundation Allied Health Scholarship
 Ben A. Sciarillo Memorial Scholarship
 Jacqueline Seeland Scholarship
 William John Seeland Scholarship
 September 11th Memorial Scholarship
 SGA Ambassadors Scholarship
 C.W. Sharp and T.L. Murphy Scholarship
 Dr. Murray Shereshewsky Memorial Scholarship
 Taras Shevchenko Scholarship
 Dr. Anthony Signorelli Memorial 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 Stefiuk Scholarship
 Student Government Association 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 Support Services Scholarship
 TD Bank Scholarship
 Vito Todaro & Joseph Bent Scholarship
 UBS Westfield Scholarship
 Union County College Adjunct Faculty Scholarship
 Union County College Black Student Heritage Organization Scholarship
 Union County College Foundation Partnership for the Future Scholarship
 Union County College Foundation Scholars
 Union County College Foundation Scholarship for Part-Time Students
 Union County Freeholders Scholarship
 Dean S. Van der Clute Scholarship
 Donald and Leona Van Gordon Nursing Scholarship
 Madeline M. and Anthony A. Vertelis Scholarship
 Wells Fargo Scholarship
 Wakefern/ShopRite LPGA Classic Scholarship
 John Allison Ward Memorial Scholarship
 Sherry Warman Scholarship
 Judge Chester and Emily Weidenburner 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
 Sturgis Wilson Memorial Scholarship
 Doris Kiefer Wolf Memorial Scholarship
 Professor Elmer Wolf Scholarship
 Louise Yohalem 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



Services for Students

Welcome

Upon your arrival at Union County College, you will discover a wide array of effective support services and programs that will help you to achieve your educational goals. A caring community of staff has your success as its core, supported by other resources that include academic tutoring, honor societies, and career advising. We seek to help each one of you successfully manage the transition into college and maximize your potential.

Advising, Career, and Transfer (ACT) Services

"Teaching to Foster Informed Decision Making"

We strive to foster student success by providing quality and timely resources to a diverse student body, and by linking your educational goals and objectives to your developmental growth process through the use of curricular and co-curricular activities.

Advising, Career, and Transfer Services has staff who are available to assist students in several areas: academic advising, and crisis referral services. Please visit the department's website for additional information at owlsnest.ucc.edu/stuserv/advisingcareerandtransfer/pages/personalcounseling.aspx.

Academic Advising

Academic Advising is an academic advisement and career planning process in which students are taught decision-making skills to help them to succeed academically.

- Educational Planning
- Major Selection and Career Advisement
- Course Details
- Programs of Study Information
- Degree Audit
- Web Services
- Monitoring Academic Progress
- New Student Orientation
- Specialized Athletic Advising

Transfer Services

Students interested in transferring to other colleges can receive the following services:

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

Crisis Referral Services

A crisis is any circumstance that may lead to an unstable and dangerous situation affecting an individual or group's physical or emotional well-being (e.g., accident, an argument, threat to harm self or others). Please go to <http://www.ucc.edu/student-services/ACTservices/studentassistance> for more detailed information if you or someone you know may be at risk. **If you are in crisis, please contact 911.** Should you observe any threat to physical injury/illness, emotional disturbance or violent confrontations on any Union County College campus, please notify Public Safety immediately.

Please go to <http://www.ucc.edu/student-services/ACTservices/studentassistance> for the current information regarding community agencies.

Advising, Career, and Transfer Services provides a variety of options for students seeking support for a range of personal challenges, so that students can do their best work and feel good about it. Advising, Career, and Transfer Services offers referrals to local agencies, practitioner referrals for long-term therapy, information about psychotherapy, mental illness, coping, workshops, and groups.

Career Services

The Career Services Center is a comprehensive center for Union County workforce and economic development providing career, internship, and employment services to students and residents of Union County. The Center serves both Union County College students and community residents. The Center is based on the first floor of the Kellogg Building, Room K119, on the Elizabeth Campus. The Center provides services for: Career Development; Career Advisement and Coaching; Career Interest Testing; Resume Writing; Job Search; and Internships/Externships Search.

For additional information, please visit the Center's website at <http://www.ucc.edu/admissions/Career-Services-Center>.

Career/Employment Services

Students can receive help with choosing a future career and/or with seeking employment prior to graduation.

- Resume and Cover Letter Assistance
- Career Workshops
- Career Interest Inventories
- Career Fairs
- Career Resources



Disability Services

In compliance with the New Jersey Law Against Discrimination (NJLAD), Section 503/504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990, including the recent Amendments, accommodations are provided to address the special needs of students with documented disabilities. Please visit the Disability website for additional information at www.ucc.edu/admissions/ACT/disabilityservices.

Union County College is committed to a total educational experience for students with disabilities. Disability Services is designed to assist students with documented disabilities. The goals are to ensure that each Union County College student is provided equal access to the College's academic programs, activities, and awards without discrimination on the basis of a disabling condition. Students who have documented disabilities can receive help with the following:

- Academic Accommodations
- Academic Advisement and Registration Assistance
- Testing Accommodations
- Interpreters
- Referral to Community Resources
- Assistive Technologies
- Linkage to Para Transit Services providing transportation to and from the College

Academic Support

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 Cranford campus Academic Learning Center, and the Center for Visual Arts and Communications, which includes a Television Studio, 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, and quiet study rooms. The Kellogg collection is 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 and 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 Library Website:

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

Academic Learning Centers

The Academic Learning Centers (ALCs), with a sharp focus on student success and student engagement, provide free tutoring, active learning opportunities, and computer assisted instruction, as well as a strong sense of community to all Union County College students who are currently enrolled in credit bearing and/or developmental courses. Students are encouraged to take advantage of the ALCs' services whenever they need assistance since there is no restriction regarding the number of times a student may come for academic support. There is an Academic Learning Center conveniently located on each campus: in Cranford, on the first floor of the MacKay Library; in Elizabeth, on the third floor of the Lessner Building; and in Plainfield, on the lower level in the library.

Tutoring is delivered primarily by peer tutors, recommended by their instructors, who have performed well in their course work and have demonstrated that they can convey their knowledge effectively to fellow students. Tutoring support is provided on a walk-in basis for most subjects based on tutor availability; no appointments are required. In addition, the ALCs offer online tutoring for selected courses through synchronous live chat and asynchronous environments via Smarthinking. Another important component of the ALC's offerings on the Cranford and Elizabeth campuses is the Math Success Center (MSC). This is an area devoted to mathematics support where students can find tutoring for all levels of math from developmental math courses through

advanced math levels. The ALCs also offer workshops throughout each semester to help students enhance their skills; workshop topics include basic mathematics and basic English review for the Accuplacer exams, Canvas LMS basic training for students taking online and/or hybrid courses, and other areas essential to student success.

The ALCs have computer labs with access to Windows computers and printers; computer tutors are available to assist students with networked and web-based software used in mathematics, English-as-a-Second Language, and engineering courses, among others. In addition, students can use Microsoft's Office Suite 2013; access Canvas, the College's online course delivery system; and receive help with navigating Owl's Nest, the College's portal, and Web Services.

The ALCs provide employment opportunities for Union County College students. Peer tutors and computer lab assistants are hired from the student body if they meet the departmental requirements and have supporting faculty recommendations.

For further information or to check with any of the ALCs for hours of operations and tutoring schedules, visit <http://www.ucc.edu/about/ALC>, or find us in Owl's Nest under Student Development.

Bookstore

The College Bookstore offers services on all three campuses. New and used textbooks, rentals, e-books and other instructional materials are available in the stores. There is also an array of Union County College clothing, gifts, and snacks.

Computing Resources

The Information Technology (IT) department provides technology leadership and innovative solution driven IT services to support Union County College goals and objectives through its knowledgeable and committed staff, while maintaining a secure and flexible IT infrastructure. Our advanced framework delivers 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. Local Area Network (LAN) and wireless connections are provided to all users to enable access to internet and various web resources. This connectivity ensures a high level 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 throughout the College community. These labs are all equipped with internet connectivity through the College's Wide Area Network (WAN) infrastructure, and links to 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

Academic Search Premier, Lexis-Nexis, and Science Direct. The Library electronic card catalog is available from any computer with internet access.

Each student is provided with access to web services through Owl's Nest and a college e-mail account, which includes access to Microsoft Office 365 and personal cloud storage. This allows the student to communicate with others, including his/her instructor, electronically. With over 150 course related applications available, as well as networked laser printers throughout the College, there is a seamless integration of technology as a vital tool in the program of study.

The IT help desk is the central point of contact for the provision of all services offered by the office of Information Technology. To maintain a consistent and standard response process to help desk calls, IT uses a help desk software coupled with tiered response procedures. Our IT help desk provides email, telephone and walk-in support for students, faculty, and staff for a wide variety of technology areas. Issues such as account problems, password resets, network/wireless access, online and self-service applications, software and hardware and mobile device support can all be accommodated by the IT help desk. The IT help desk may be reached at techsupport@ucc.edu or extension 7979 for the Cranford campus, extension 3567 for the Plainfield campus, extension 2355 for the Kellogg building, and 2349 for the Lessner building.

We strive to provide excellent and reliable IT services to our students, faculty, and staff to support the success of the mission of Union County College.

Air Force/Army ROTC

Union County College, Rutgers – The State University of New Jersey, 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 of New Jersey or Seton Hall University.

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.
- 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.

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 charges.
- The 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.
- Students must submit the appropriate forms at the time of registration including verification that they have completed the Financial Aid application process.

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.

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 the time of registration, senior citizens are responsible for paying a senior citizen processing fee, and an annual parking fee, if a parking permit is purchased.
- Students may register on the last day of registration 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 Finance Office.
- Students participating in this program may register at any time.

Unemployment Waivers

- The Unemployment Waiver covers tuition only. Students are responsible for payment of all other charges at time of registration.
- Students desiring to utilize the Unemployment 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 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.
- Students will be allowed to register on a space available basis on the last day of registration for the semester. Students who register prior to the designated date CAN NOT apply the Unemployment Waiver towards the cost of such courses.
- The 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 (see the Financial Aid section for additional details) 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 registration for the 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 to 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.
- Students should be aware of program limitations as some costs might not be covered.

Internal Revenue Service Form 1098-T

- For each calendar year, the College issues IRS Form 1098-T to qualified students. Forms are mailed to students by January 31 of the following year.
- The 1098-T contains information to assist students to determine if they qualify for educational tax credits or deductions. For details on these credits/deductions or how to use the amounts listed on your form, consult either a qualified tax preparer or the IRS website: www.irs.gov
- The information on the form complies with IRS regulations. Amounts are reported in the calendar year in which the transaction occurred, which is not necessarily the same as the year in which the courses were taken.

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. Contact information – www.ucc.edu/go/pubsafety.

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 permit to be displayed by the registered vehicles. Automobiles parked on campus illegally or without proper, valid, parking permits 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 Public Safety Guide.



Academic Policies

Welcome

The faculty and staff at Union County College are committed to providing you with a coherent and relevant curriculum as well as learning opportunities that will engage and challenge you. We place you, the student, at the center of what we do and will help you to grow intellectually within a culture of respect and discovery.

Academic Dismissal / Probation

All students must earn a minimum Cumulative Grade Point Average of 2.0 or better in order to obtain a degree, or certificate. 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 recommendations. Recommendations regarding probation, dismissal, and conditions of re-entrance are made to the Vice President for Academic Affairs. A written notice is sent to students notifying them of their probation or dismissal status.

Academic Probation – The College recognizes that transitions are oftentimes difficult for students; and therefore, administers a probationary period. Students who fail to maintain a 2.0 cumulative GPA or better will be placed on probation for one semester. Students are expected to achieve a 2.0 cumulative GPA in their subsequent semester to be able to retain their enrollment in the college.

Academic Dismissal – All students failing to reach their minimum cumulative GPA, as defined by the College are placed on probation. After their probation period, students on probation 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.

Appeals – In special circumstances, dismissed students may seek a waiver of their dismissal by submitting a written appeal to the Academic Progress 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 her/his designee.

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

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 Advisor. 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 an advisor about the ramifications of making such a request. Courses may not be excluded if required for current major.

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

Academic dishonesty is defined as, but not limited to, 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, and Kate Turabian's A Manual for Writers of Term Papers, Theses, and Dissertations. 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 refer to information in an ethical manner as outlined in the Information Literacy Competency Standards for Higher Education from the Association of College & Research Libraries (ACRL).

Cheating/Plagiarism

There is an expectation that students will present as their own work only that which they have done themselves. The College will not tolerate dishonesty at any time, whether it be plagiarizing (the act of representing someone else's ideas as your own) or cheating by any means during a test, an examination or in any work intended to be done independently.

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

- a. Copying from another person's test, electronic device, or paper.
- b. Permitting another to copy from a test or paper.
- c. Using crib notes or any instrument not authorized by the instructor.
- d. Concealing notes on parts of the body, desk, or other object.
- e. Using cell phones or texting during examinations.
- f. Claiming authorship of work that is not your own.
- g. Buying or selling quizzes, exams or term papers for the purpose of academic evaluation.
- h. Theft of examinations.
- i. Permitting another to:
 - a. Take an examination in your place.
 - b. Complete take-home examinations or other assignments.
 - c. Complete work for the purpose of academic evaluation in online 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.
- Paraphrasing another's work without proper attribution.
- Submitting deliberately misleading attributions or acknowledgments.
- Submitting a purchased term paper, or another person's work as one's own.
- Failing to properly document information obtained on the World Wide Web or other Internet sources.

Access to Student Records

The academic records of students are kept in the Registrar's Office under the jurisdiction of the Registrar and apart from any disciplinary records, the latter being retained in the office of the Vice President of Student Development or designee. 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 complies 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 Development.

Advanced Placement (AP)

Union County College awards transfer credit to students who have taken Advanced Placement courses and have achieved a score of 3 or higher on the Advanced Placement Examination for a particular subject. Transfer credits earned by way of Advanced Placement count toward the maximum number allowed toward a certificate or degree program.

Attendance

Students are required to attend the classes, laboratories, and clinical sessions for which they are registered. Students are graded according to course learning outcomes 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 affect 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 absences in a class that meets twice per week. The instructor should be notified of extra-curricular absences prior to missing class. The application of this policy is left to the individual instructor who, at the beginning of each semester, will provide the specific requirements of his/her course in the syllabus.

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 Division Dean's office.

Auditing a Course

Students may audit courses. 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 are not 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. 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 affect 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.

Challenge Examinations

In some courses, challenge examinations may serve as the basis for students to receive credits. 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; no credit will be granted on the Union County College transcript. 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 a challenge examination must obtain a challenge exam from the appropriate Division. If the student is deemed eligible, he/she completes the Request for Challenge Examination form and makes payment for the exam. The completed form and payment receipt are then brought to the Division Dean 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 for all courses.

College Level Examinations (CLEP)

CLEP (College Level Examination Program) provides a method of earning college credits by passing a CLEP examination in various subject areas. Students may apply for CLEP through www.collegeboard.com.

Union County College awards a maximum of 12 credits for the Language CLEP exam, and up to 9 credits in other subject areas. The list of approved subject examinations for CLEP credit may be viewed at www.ucc.edu/. Transfer credits earned by way of successfully passing CLEP examinations count toward the maximum number allowed toward a certificate or degree program.

Union County College does not grant credit for a CLEP exam if a student has attempted a college-level course closely aligned with that exam. For example, if you successfully completed English 101 or a comparable course, you may not receive CLEP credit in that same subject. Also, the College does not permit students to earn CLEP credit for a course that he/she failed.

Union County College administers CLEP tests to its students in the Academic Testing Center, Room S-125, on the Cranford campus. If you are a Union County College student, please go to www.CLEP.com and select and pay for the test of your choice. Do not select a test site. After you pay College Board for the CLEP test, print out the ticket. You will need to bring this ticket and a government issued ID with you when you take the test. Call the Academic Testing Center at 908-709-7486 to schedule your CLEP test. CLEP tests are given on Fridays at 4:30 p.m. and on select Saturdays at 8:30 a.m.

College Credits Assigned by Instructional Mode

In awarding credit hours, Union County College conforms to state and federal definitions, as well as any policies set forth by the Middle States Commission on Higher Education. Union County College has fall and spring semesters that consist of 15 weeks of instruction that include a final exam week. The College also offers 6- and 10-week summer term, an 11-class winter session, 13-week Saturday or Sunday sessions, and 11- or 12-week Later Start classes, which begin on the third week of each fall and spring semester. All scheduling options include an additional final exam and comply with all policies regarding meeting times and amount of work required.

LECTURE

Courses with multiple students that meet and participate in various forms of group instruction under the direct supervision of and instruction by a faculty member, wherein the student performs substantive work in a classroom setting.

Credits Awarded	Minimum Contact Time	Per 14-Week Session (plus final exam)	Minimum Out-of-Class Student Work Total for 14 Weeks (Outside Work x Number of Weeks)
1 credit	55 minutes per week	750 minutes per semester	1500 minutes
3 credits	160 minutes per week	2250 minutes per semester	4500 minutes

LABORATORY

Courses with a focus on experiential learning under the direct supervision of and instruction by a faculty member, wherein the student performs substantive work in a laboratory setting. The credit to contact hour ratio is 1:2 or 1:3 as stipulated by the New Jersey President's Council.

	Credits Awarded	Minimum Contact Time	Per 14-Week Session (plus final exam)	Minimum Out-of-Class Student Work Total for 14 Weeks (Outside Work x Number of Weeks)
Laboratory 1:2	1 credit	107 minutes per week	1500 minutes per semester	750 minutes
Laboratory 1:2	3 credits	321 minutes per week	4500 minutes per semester	2250 minutes
Laboratory 1:3	1 credit	160 minutes per week	2250 minutes per semester	0 minutes
Laboratory 1:3	3 credits	482 minutes per week	6750 minutes per semester	0 minutes

LABORATORY continued

	Credits Awarded	Minimum Contact Time	Per 14-Week Session (plus final exam)	Minimum Out-of-Class Student Work Total for 14 Weeks (Outside Work x Number of Weeks)
Clinical Laboratory 1:3	1 credit	160 minutes per week	2250 minutes per semester	0 minutes
Clinical Laboratory 1:3	3 credits	482 minutes per week	6750 minutes per semester	0 minutes

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 Division Dean.

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. Course waivers will be given at the discretion of the Division Dean. It is strongly recommended that students obtain course waivers before registering for the substitute course. Courses waived do not appear on the student's transcript. If the waiver involves more than one Division, the waiver form requires the signature of both Deans. After both appeals, 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.

Examinations, Tests & Quizzes

- A two-and-one-half-hour final examination is given at the conclusion of all courses.
- 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. 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 division secretary or Registrar's Office. The grade change form must be forwarded to the Vice President for Academic Affairs in order for the grade change to be officially recorded on the student's record.

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 (not recognized for transfer)
D	Below average – lowest passing grade (not recognized for transfer)
F	Failing
I	Incomplete*
XF	Incomplete changed to failing*
UF	Unofficial withdrawal (student stopped attending; or did not officially withdraw; calculated as a failing grade)
W	Official withdrawal
AU	Audit (no credit)

* An "Incomplete" grade may be given 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 this period. If the student is unable to contact the instructor, timely notice should then be given to the Division Dean.

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
CST 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 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 Progress Committee. Instructors enter final grades online. Students must go to webservices.ucc.edu to view or print their final course grades. Instructors are not permitted to post grades by social security numbers. No information regarding grades will be offered over the phone.

Grading

It is college policy that every instructor must provide students with a written statement regarding his/her grading policy at the beginning of each academic term. Students who have not received such information prior to the end of the second week of classes should ask the instructor for a statement outlining the grading policy to be followed.

Graduation

It is the responsibility of students to meet with an advisor to make sure they have taken all courses required in their program, and that they have sufficient credits each semester to meet the requirements for graduation. Students are "strongly encouraged" to meet with an advisor to review their program requirements prior to completing a graduation application. The student must submit the application for graduation.

Students enrolled in Cooperative Programs with JFK Medical Center Muhlenberg Snyder Schools, Trinitas School of Nursing, or Rutgers SHRP must consult with the program advisor.

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

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

All degree or certificate recipients are eligible to participate in commencement exercises for the academic year. There are two commencement ceremonies; one is held in January, and one is held in May.

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 student's transcript or issued. Degrees or certificates issued will carry the

graduation date closest to the date of final clearance.

Automatic Degree Awarding – Union County College has instituted a process which makes it easier for students to gain the certificates or degrees they have earned. Students are automatically awarded the degree or certificate for their declared program of study as it is completed, no application is necessary and there is no fee for graduation. Students will be notified of their candidacy for graduation at the beginning of the semester via their Union County College student email. Degrees and certificates are officially issued following the conclusion of the spring (May), summer (August), and fall (January) terms.

After grades are due for the term, a final review will be conducted to determine if a student has successfully met all graduation requirements. At that time, the degree or certificate will automatically be posted on the student's transcript, and students will be notified via their Union County College student email. Prior to conferral of their degree, students will have an opportunity to defer their graduation.

Commencement – Commencement is the ceremony for students, family, friends, and the College community to celebrate the student's academic accomplishments. Participation in the ceremony means that students are eligible to graduate in that term; however, it does not mean that the student has earned a certificate or degree.

There are two commencement ceremonies each year, one in January and one in May. Students that are eligible to graduate in summer (August) or fall (January) terms may participate in the January ceremony. Students eligible to graduate at the conclusion of the spring (May) term may participate in the May ceremony.

Participation in a ceremony outside of a student's eligible term may be granted provided that the student has less than 8 credits remaining to be completed and is registered for the course(s) in the following term. The commencement program will include the names of students eligible to graduate by term. Students are required to confirm attendance in the ceremony by responding to an email from the Registrar informing them of their candidacy to graduate.

There is no fee to participate in graduation and cap and gown are provided to graduating students free of charge.

Second Degrees

Students seeking second degrees at Union County College must meet with an advisor to review program requirements prior to pursuing a second degree. Students who have earned a certificate credential at Union County College can use half of the certificate program credits that are applicable toward a second certificate program. Students who have earned a certificate credential at Union County College can use all of the certificate program credits that are applicable, toward a degree program. Students seeking a second degree at Union County College can use half of their degree program credits toward a second degree program at Union County College.

Union County College Transcripts

Requests for Union County College transcripts can be made by visiting the College website at www.ucc.edu, or by visiting the National Student Clearinghouse at www.nationalstudentclearinghouse.org. Current students and students with active College email accounts can log in directly to Owl's Nest site or Web Services and request a transcript. A fee is charged for each transcript. Students with any outstanding financial obligations will not receive a transcript until all financial obligations have been met.

Transfer Credit

Union County College welcomes applicants transferring in from other institutions. Courses transferred must be from accredited colleges and/or universities. Students transferring to Union County College must complete a minimum of 24 credits of their degree program at Union County College, all other credits can be transferred in but must be applicable to the student's current program of study. Non-remedial courses with a grade of "C" or better will be considered for transfer credit. All models of instruction, including face-to-face, online, and hybrid courses, will be considered for transfer credit.

Students interested in transferring courses to Union County College must complete the College application process, and have official transcripts mailed to Union County College's Admissions Office. Official review and granting of transfer credit will be completed by an advisor in collaboration with the appropriate Academic Dean. Awarding transfer credits will be based on program requirements, transfer regulations, and the New Jersey State Transfer guidelines at <http://www.njtransfer.org/>. Transfer credits awarded will be posted and can be viewed on Web Services under "Program Evaluation". Grades are not transferred from other institutions. Transferred courses will be listed as "TR" for transfer credit on the student's transcript. The office of the Vice President for Academic Affairs has the responsibility for final determination of acceptance or denial of transfer credit.

If the student changes his/her program at any time, he/she must request to have his/her transcript re-evaluated, the transfer credits previously awarded may not apply to the student's new program choice.

Science courses that were completed five or more years prior to being admitted to any health science program may not be eligible for transfer.

Graduates of the Union County Policy Academy and/or the Union County 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 – Policy 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.

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 official withdrawal period listed in the College Calendar for semester/session requires that the student submit an official request for withdrawal through a drop/add withdrawal form.

Students should consult with an advisor before withdrawing. 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.

Financial aid recipients should discuss the implications of withdrawing from class with the Financial Aid Office in order to gain an understanding of any implications withdrawing has on their financial aid status.

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. A student who withdraws from all classes within the published 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 is published in the College calendar. 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/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 www.ucc.edu.

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 Division Dean.

Students should talk to their instructor and an advisor before they consider withdrawing. Withdrawal may change eligibility for federal financial aid and 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 Financial Aid funding must contact the Financial Aid Office prior to withdrawing from one or more courses.

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



Workforce Development and Continuing Education

Welcome

Continuing Education offers a variety of affordable non-credit courses for professional development and personal enrichment. Whether you are looking for a job or interested in exploring a new hobby, Union County College has a program for you. Classes are scheduled in evenings, weekends, or convenient daytime hours and take place in several Union County locations or online.

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.

Committed to the concept of lifelong learning, the Department schedules these non-credit courses in the evenings, on weekends, and during daytime hours 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, Real Estate Sales and Appraisal, American Sign Language, Pharmacy Certified Technician, Child Development Associate (CDA), Substitute Teacher Specialist, Practical Accounting, Human Resource Management, Administrative Assistant, Floral Design, and Interior Design. Certificate programs are also available in Appliance Repair Basics, Event Planning, Marketing, Certified Bookkeeper, U.S. Customs Broker Test Preparation, Certified Fiber Optic Technician, Personal Trainer National Certification, Nutrition Specialist, Structured Query Language, Patient Care Technician, Certified Phlebotomy Technician, Certified EKG Technician, and Management.

Youth programs are offered on Saturdays on a variety of topics such as SAT test preparation, reading and math enhancement. In addition, these youth programs are offered in the summer months. College for Teens is a career-oriented program that provides academic enrichment, and career exploration 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 pro-gram. Students are able to obtain New Jersey teacher certification upon completion of the program. For further information, write, email or call the Continuing Education Department at Union County College, 1033 Springfield Avenue, Cranford, NJ 07016, coned@ucc.edu, (908) 709-7600.

Industry-Business Institute

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

Programs are designed for maximum effectiveness and to help organizations improve productivity, quality, cost effectiveness, and morale. Professional instructors with expertise in relevant industries deliver the programs. Training is delivered on-site and scheduled at times that will fit office or production schedules. Companies fund this training with their own budgets, and also may receive funding through various state and federal funding programs. IBI provides companies with comprehensive assistance in securing and administering the State training grants. 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
- Transportation, Logistics, and Distributor Sector
- 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) 965-2358.

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 to enter and compete in today's workforce as well as develop life-long learning skills.

The Center offers a wide variety of programs and courses to over 4000 adults each year. The Center model includes standardized assessment, student support services, occupation-related basic skills instruction, occupational training and job placement services. In keeping Union County College's commitment to provide access to education for all, CEWD instruction is scheduled during the evenings, weekends and daytime hours so that adults can choose a schedule most convenient for themselves and their lifestyles. The Center for Economic and Workforce Development services are located 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 offers the following programs:

- **Project ABLE Plus:** This WIOA Title II program offers ESL, ESL Civics, Adult Basic skills development and GED preparation to eligible residents. This program is funded through the State of New Jersey Department of Labor.
- **Job Search Workshops:** Eligible Union County students develop career goals, prepare resumes and develop job seeking and maintenance skills through this four week Work First New Jersey (WFNJ) program.
- **To-Work Community Work Experience Activities:** These activities provide WFNJ eligible participants the opportunity to develop skills that will enable them to find and maintain employment. Participants are placed on a non-profit/ community-based organization site to practice and hone their employability skills. These activities may be combined with Basic Skills, GED or ESL classes.
- **English as a Second Language:** CEWD offers individuals, who need to develop their English proficiency to a level where they will be able to meet the requirements for the Institute for Intensive English, two levels of English as a Second Language (ESL) courses to begin to develop their English skills and move from the lowest levels of proficiency to levels 3 through 6 of the Institute for Intensive English (IIE). These courses are designed to provide levels 1 and 2 English proficient students with 135 hours of intensive instruction that focus on the fundamentals of the English Language with an emphasis on speaking, comprehension, and writing. Students are exposed to a variety of learning experiences essential to daily life in the United States. The courses also provide students with exposure to the social and cultural life in the United States, such as greetings, introductions, and forms of address. In addition, the students are acclimated to an academic environment specific to the United States. In conjunction with each classroom lesson, there is an opportunity for the students to review and reinforce the concepts presented through the use of ESL software available in the state-of-the-art computer labs. Interested students take the Union County College ESL placement test, as well as the Center for Economic and Workforce Development's nationally recognized standardized test. Pre-program test scores will be used to place students in the appropriate levels of instruction and post-test scores will measure progress. Upon comple-

tion of the final course, instructor recommendations, post-test scores, and the course final grade will determine if students move from the Center to the IIE.

- **Occupational Training:** The Center provides 360 to 585 hour occupational training programs that provide instruction in demand occupations such as Medical Billing and Coding, Computer Software/Secretarial Science, Computerized Office Skills, Accounting Technician, ESL Office Skills, and Welding. These programs are offered to One Stop Career Center eligible participants (i.e. WIOA, TRA, DVE and WDP participants) or to individuals who wish to pay. Welding and Medical Billing and Coding and several of the computer training programs prepare students to take a national certification exam.
- **Youth Programs:** The Center has been instrumental in the implementation of both an Elizabeth Youth Corps and a Youth Transition-To-Work program. These programs provide at-risk youth (ages 17 to 24) the opportunity to develop Occupational skills and/or Basic Skills as well as the opportunity to develop an interest in and support community projects (i.e. feeding the homeless, planting trees and cleaning their environment).

In conjunction with an experienced administrative, support staff and qualified instructors, the Center has an involved Student Service staff and an active Job Development team who schedule regular career days and comprehensive job fairs for CEWD students and the community. As a Union County One Stop Career Center partner, the Center regularly supports the County's Social Service Agencies with activities geared to increasing the productivity and employability of the agencies' participants and Union County residents. Additionally, the College, through both the Center for Economic and Workforce Development and the College's Continuing Education departments, supports the implementation of the new Workforce Innovation Business Center located in the Mills at Jersey Gardens (Jersey Gardens Mall). The Center and the College continue to prioritize working with County agencies and with local employers. Employment for Center students in the primary goal.



Special Programs and Services

American Honors

The American Honors program at Union County College helps motivated students transfer to their dream school to obtain their bachelor's degree. The Honors program cultivates in-depth learning through individual inquiry and encourages high-quality performance. Honors courses are interactive and emphasize critical thinking, analytical writing, and effective speaking.

The American Honors program is not a separate track or major; students matriculate into a Union County College degree program and take Honors courses toward fulfillment of their general education and program requirements.

Students possessing a high school diploma (or equivalent) – including new students, international students, continuing students, and transfer students – should apply directly to American Honors at Union County College. To be eligible to enter the American Honors program, students typically have a cumulative GPA of what is equivalent to a 3.25 grade point average (GPA) on a 4.0 scale and must be enrolled in a transferable degree plan.

Contact an American Honors Admissions Officer (admissions@americanhonors.org) to learn more about joining the Honors program.

All completed Honors courses are identified on student transcripts. Students who take these classes are exceptionally well prepared for transfer to four-year colleges and universities, for scholarships, and for success in their transfer institutions and career paths.

For more information, visit <http://www.ucc.edu/AmericanHonors> or contact an American Honors Admissions Officer at admissions@americanhonors.org.

UCC 101 – A College Success Class

UCC 101 is a hands-on college success class designed to help all students adjust to college by giving them the information, strategies, and support they need to do well in their college classes and stay on the path to graduation. This course will help students explore career, and four-year college options, navigate the academic environment, and learn to think and read critically.

Students will familiarize themselves with college-level research, study skills and personality and career inventories that will help them make future decisions. This course is a resource for students to get their bearings in college, make academic choices, and set educational and professional goals into action.

All first-time full-time students taking twelve or more credits are required to take UCC 101 in order to progress in their programs. Although this 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.

Prerequisites: None.

Exemptions: All first-time full-time students are required to take UCC 101 except for:

- 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 with a college degree;

- Students who have successfully completed ENG 101 or 112 and MAT 119;
- Students with visitor status;
- Students in diploma programs;
- Students in certificate programs;
- Senior citizens.

New Student Orientation

New Student Orientation is the first step to achieving academic and personal success at Union County College. By participating in this program, you will be knowledgeable about the tools needed to successfully navigate your college education experience. At the session, students will learn about degree requirements for graduation, explore careers that fit their interest, and gain assistance with developing an education plan, as well as register for classes.

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.

What services or benefits are offered to Union County College EOF students?

- Comprehensive summer orientation for first year students
- Registration, Career, Transfer and Financial Aid advisement from their own personal EOF Advisor
- Leadership Activities and Workshops
- Academic Support through tutoring and supplemental instruction
- Opportunity to join the Chi Alpha Epsilon National Honor Society
- An additional financial aid grant of \$100-\$525 a semester

For Eligibility Requirements: Students interested in being considered for the EOF Program at Union County College must fulfill the following requirements:

- Meet the financial eligibility requirements for Academic Year 2016-17 as defined by the State of New Jersey Office of the Secretary of Higher Education – (www.state.nj.us/highereducation/EOF/EOF_Eligibility.shtml)
- Be a full-time (minimum 12 credits) for the semester they are applying
- Have been a New Jersey resident for at least a year
- Complete the 2016-17 Free Application for Federal Student Aid (FAFSA) – (www.fafsa.gov)
- Be eligible for state aid from the NJ Higher Education Student Assistance Authority – (www.hesaa.org)
- Have taken the Accuplacer Placement Test and placed into ENG 096 or higher; or ESL placement level 5 or 6
- Have a minimum 2.5 GPA (including any developmental courses) and no more than 30 college credits (current Union County College student)



How to Apply for EOF: Interested students must complete an EOF application and submit all required supporting documentation listed on the application. Students will not be considered for acceptance until all required supporting documentation has been submitted. Students applying for EOF can download an EOF application from the following sites:

- EOF Summer Program – www.ucc.edu/go/eof
- EOF Academic Year – EOF Owl's Nest site
— *Union County College Portal > Student Development > Educational Opportunity Fund (EOF) > Apply for EOF*

EOF is not a financial aid entitlement. Space in the EOF Program at Union County College is limited. Priority for acceptance into the EOF program is given to first-time, full-time college students.

To learn more, contact
The Educational Opportunity Fund Program
(908) 709-7088
www.ucc.edu/go/eof

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 semesters with a minimum 24 college credits 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.

The Engineering and Architectural Honor Society

The Engineering and Architectural Honor Society is for students in an A.S. Engineering or Architecture program. Membership is extended by nomination of the Engineering/Technology/Architecture faculty to students who have completed at least 15 credit of the required courses in their major program with at least a 3.5 GPA in that program.

Mu Alpha Theta

Students with a strong 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 credit mathematics course, an overall 3.25 cumulative average, and finishing at least MAT 144 or above.

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 international honor society which aims to promote scholarship, develop character, and cultivate fellowship among students of two-year colleges. Iota Xi is the chapter of Phi Theta Kappa at Union County College. All students who have earned 12 transferable credits at Union County College with a cumulative average of 3.6 are eligible for admission 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 3.25 GPA, a least 12 credits, and at least one course in psychology with an overall grade of "B" or better in each psychology course.

Tau Alpha Pi

Tau Alpha Pi, New Jersey Beta Chapter. The Tau Alpha Pi National Honor Society is a national honor society for students matriculated in an AAS Engineering Technology program. Membership is extended by nomination of the Engineering/Technology/Architecture faculty to students who have completed at least 15 credits of the required courses in their major program with at least a 3.0 GPA in that program.

Lambda Epsilon Chi

Lambda Epsilon Chi is a nationally known academic honor society for paralegal students. Sponsored by the American Association for Paralegal Education (AAPPE), 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 Sea Grant Consortium

Union County College is a member of the New Jersey Sea Grant 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.

Developmental Sequence

Mathematics & English

Depending on your test scores, you may be required to take one or more semesters of Developmental English or Mathematics. All required developmental mathematics courses, as determined by placement testing, must be completed prior to enrollment in credit mathematics courses. In some instances, credit course placement may be determined through satisfactory performance on the College Level Mathematics Exam. Contact the STEM Dean's office for more information.

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 an advisor 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.

Refresher courses and accelerated options are available in developmental mathematics and developmental English.

Students may contact an advisor or the appropriate Division Dean for more information. 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 096 and after successfully completing the coursework, their work may be evaluated for testing 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 096, 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).

IF YOU DO NEED TO TAKE DEVELOPMENTAL CLASSES, THIS IS THE SEQUENCE OF COURSES:

Developmental Mathematics	Developmental Reading	Developmental Writing	Developmental Reading and Writing	English as a Second Language
1.			ENG 087	
2. MAT 017* MAT 019** or MAT 022	ENG 081 with ENG 101	ENG 091 with ENG 101	ENG 096	ESL 067 and ESL 068
3. MAT 021				ENG 097
4. Credit Mathematics			ENG 101	ENG 111

* For Non-STEM majors: upon completion of MAT 017 register for MAT 125 or MAT 127.

** For STEM majors: upon completion of MAT 021 register for MAT 119

English for Speakers of Other Languages

The Institute for Intensive English provides a program of intensive instruction in English for speakers of other languages. Through this program students have the opportunity to enhance their English language abilities in order to further their academic, career, and/or personal goals.

After placement testing, students enter an appropriate ESL level of instruction commensurate with their abilities. In all levels, students register for two core English for Academic Purposes (EAP) courses: Grammar/Writing and Reading/Listening/Speaking.

Upon completing each course, there is an exit test, to assess a student's proficiency. While enrolled in ESL courses students can take additional courses, depending on a student's level:

Level 3 Students:

Developmental Mathematics courses (MAT 017, MAT 019, MAT 021, or MAT 022), based on major or Accuplacer score. ADM 101 Keyboarding for the Computer I, PED 101 Concepts of Adult Fitness;

Level 4 Students:

Credit Level Mathematics courses (MAT 119, MAT 143, MAT 144 and other credit Mathematics courses), based on Math placement test or progression through courses. ADM 102 Keyboarding for the computer II, CST 100 Intro to Computer Applications;

Level 5 Students:

FIA 107 Intro to Dance, FIA 109 Intro to Drawing, FIA 110 Intro to Painting, MET 109 Computer Aided Drafting, EGG 111- Engr. and Computer Graphics, HSM 100 Intro To Hospitality Management, as well as other courses with permission;

Level 6 Students:

BUS 101 Introduction to Contemporary Business, BUS 105 Organization and Management, COM 100 Communications Technologies, CRJ 101 Intro to Criminal Justice, ADM 140 Customer Service, PSY 101 General Psychology, and other courses with permission.

Please be advised that **New Student Orientation** is required for all first-time students who intend to enroll full-time.

Language Requirements

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 English Program 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 Division Dean 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 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.

Many Associate in Arts Programs Require 2 or 3 semesters of a Modern Language – Please review specific requirements in each program.

Modern Language Placement – Students who qualify for the intermediate or advanced level of a Modern Language in their freshman year will be placed accordingly.

Distance Education

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
- Hybrid Courses

MANY ONLINE COURSES are delivered entirely over the Internet. Some courses require on-campus testing.

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 you to purchase specific software. Science courses have separate lab and lecture sections and labs are not usually available in online format.

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;
- Online tutoring is available for online offerings. Services are available at no additional cost to the student.

HYBRID COURSES combine traditional on-campus class meetings with online course learning, offering a flexible learning schedule.

Hybrid 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.

Hybrid courses are a full semester in length and include 14 on-campus meetings. Offerings during nontraditional semesters, such as summer and winter sessions, follow a revised meeting schedule.

Verification and Online Integrity

- Online and hybrid students are required to provide photo ID on the first day of class in order to verify identity.
- Students are required to participate in at least two verified assessments using ProctorTrack or Turnitin. There are no costs to students for these products.

The Distance Education department, along with the IT department, are responsible for consistent application of student identity verification procedures.

Questions about student identification and verification should be directed to the Director of Instructional Design, (908) 497-4363.

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 hybrid course?

No, but at 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. Take our brief readiness survey to determine if online or hybrid education is for you:

<http://owlsnest.ucc.edu/academics/de/Documents/Ready4Online.htm>

Login and review the Distance Education website for more details and up-to-date information.

owlsnest.ucc.edu/academics/DE/pages/default.aspx

Format	Number of On-Campus Meetings	Section Number	Example	Notes
Online	None*	300, 301, 302, etc.	CST 111 300	Winter session section #'s are 230 and 231
Hybrid Courses	14	390, 391, 392, etc.	CST 111 390	Meets once a week for 80 minutes or approximately 1/2 traditional class meetings.

*proctored exam may be required

Fees: There are no additional fees for online and hybrid courses.

FERPA and ADA: All online and hybrid courses protect student privacy and provide ADA accommodations.

Questions about student identity verification, online course integrity, FERPA, and ADA in online courses should be directed to the Distance Education office located in the basement of the Cranford Library, L-22, by phone at 908-497-4364 or by email at ucconline@ucc.edu.

Dual Admissions Agreements

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 an advisor for specific information on these transfer opportunities.

Caldwell University

Union County College students who enroll in the joint admissions program with Union County College and Caldwell 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.

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.

Delaware State University

Union County College students who enroll in the joint admissions program with Union County College and Delaware 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.

Delaware Valley University

Union County College students who enroll in the joint admissions program with Union County College and Delaware Valley 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.

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 fulfilled 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.

Additionally, Kean University will reserve a place for Union County College students enrolled in the STEMpack joint admission program for a Bachelor of Arts in Biology, Bachelor of Arts in Chemistry, Bachelor of Arts in Mathematical Sciences, Bachelor of Science in Computer Science (Information System Option) and Bachelor of Science in Computer Science. The students will be admitted into a parallel program and will be accepted with full junior standing. The students must complete the Associate Degree under which they were accepted at Union County College and fulfill the criteria of the STEMpack joint admission 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.

Rutgers – The State University of New Jersey

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 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.

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**, New York, NY
- **Bethune-Cookman University**, Daytona Beach, FL
- **Binghamton University, State University of NY**, Binghamton, NY
- **Bloomfield College**, Bloomfield, NJ
- **Caldwell University**, Caldwell, NJ
- **Cazenovia College**, Cazenovia, NY
- **Centenary College**, Hackettstown, NJ
- **College of Mount St. Vincent**, Riverdale, NY
- **College of Saint Elizabeth**, Convent Station, NJ
(See information on dual admissions)
- **Delaware State University**, Dover, DE
- **Delaware Valley University**, Doylestown, PA
- **Dickinson College**, Carlisle, PA
- **Fairleigh Dickinson University**, College at Florham, 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 Cabot University**, Roma, Italy
- **John Jay College of Criminal Justice (CUNY)**, New York, NY
- **Kaplan University**, Iowa and Nebraska
- **Kean University**, Union, NJ
(See information on dual admissions)
- **Laboratory Institute of Merchandising**, New York, NY
- **Manhattan College**, Riverdale, NY
- **Montclair State University**, Montclair, NJ
(See information on dual admissions)
- **Mount Aloysius College**, Cresson, PA
- **National University of Health Sciences**, Lombard, IL
- **New Jersey City University**, Jersey City, NJ
- **Pace University**, New York, NY, and Pleasantville, NY
- **Palmer College of Chiropractic**, Davenport, IA
- **Pillar College**, Newark, NJ

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


* Contact Union County College for the most current information.



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 curriculum programs 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 co-requisites.

 **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.

Academic Programs are subject to change. Students should contact the office of the Vice President for Academic Affairs for the most current information.

ASSOCIATE IN ARTS – A.A.

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 two to three years full-time and three 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 graduate from 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 Studies, option offered through Liberal Arts
- Business
- Communications
- Early Childhood Elementary Education, option offered through Liberal Arts
- Education, option offered through Liberal Arts
- English
- Graphic Design, option offered through Liberal Arts
- History
- Journalism and Public Relations, option offered through Communications
- Liberal Arts
- Media, option offered through Communications
- Music and Theater Arts, option offered through Liberal Arts
- Psychology, option offered through Liberal Arts
- Public Administration, option offered through Business
- Sociology, option offered through Liberal Arts
- Visual Arts, option offered through Liberal Arts

ASSOCIATE IN SCIENCE – A.S.

The Associate in Science degree (A.S.) is awarded to students who are interested in earning an Associate's 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. It is the equivalent of the first two years of a four-year college or university degree. This degree is intended for students who wish to transfer to a four-year college or to find a job upon graduation.

- Nursing, JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools
- Nursing, Trinitas School of Nursing
- Psychosocial Rehabilitation and Treatment
- Radiography, Amplified Program, JFK Medical Center Muhlenberg Harold B. and Dorothy Snyder Schools
- Respiratory Care
- Sonography, Diagnostic Medical, JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools

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

- American Sign Language and Deaf Studies
- Architecture, option offered through the Engineering Program
- Biology
- Chemistry
- Computer Information Systems and Technology
- Computer Science
- Computer Science/Engineering, option offered through the Professor Elmer Wolf Engineering Program
- Criminal Justice
- Cybersecurity, option offered through Mathematics
- Engineering, the Professor Elmer Wolf Engineering Program
- Health Science
- Liberal Studies
- Mathematics
- Mathematics Education, option offered through Mathematics
- Paralegal Studies
- Social Services
- Sustainability Science, option offered through the Professor Elmer Wolf Engineering Program

ASSOCIATE IN APPLIED SCIENCE – A.A.S.

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. Students who would like to transfer should meet with an academic advisor to ensure that all necessary requirements are met.

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

- Accounting
- Automotive Technology
- Business Management
- Business Marketing
- Dental Hygiene
- Electronics/Electro Mechanical Engineering Technology
- Fire Science Technology
- Game Design Development
- Hotel, Restaurant, and Tourism Management
- Paramedic Emergency Health Science, Robert and Freda Brown Paramedic Program
- Physical Therapist Assistant
- Sport Management
- Technical Studies

CERTIFICATE – C.T.

The Certificate course of study consists of 30-36 credits including six 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 and Deaf Studies
- Audio Production
- Criminal Justice
- Dental Assisting
- Emergency Medical Studies
- Interpreting Spoken Language
- Liberal Studies
- Photovoltaic (PV)
- Practical Nursing

CERTIFICATE OF ACHIEVEMENT – C.T.A.

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

- CAD-CAM
- Educational Interpreter Program (EIP)
- Emergency Medical Studies
- Office Professional
- Paralegal Studies

COURSE SUBSTITUTIONS AND 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 Division Dean or Vice President for Academic Affairs for approval.

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

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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 written and oral communication in the English Language);
2. **Mathematics, Science, and Technology** (courses enhancing mathematical and scientific conceptual understanding and application, including knowledge of computers);
3. **Social Science** (courses enhancing social awareness, including social, economic, and political problems, and the responsibilities of citizenship in an interdependent world);
4. **Humanities** (broad-based 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);
5. **History** (broad-based courses in historical perspective which may be sequence or survey in World, Western, non-Western, or American History);
6. **Diversity** (courses whose purpose is to expose students to a multicultural society or people).

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 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. Advisors 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 (for A.A.S. degrees only)
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 satisfies the diversity requirement is subject to continual review and revision; current courses are:

DIVERSITY COURSES:

- ASL 102** Visual-Gestural Communication
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 and Skills) Science 3-8 cr. (Sci. Knowledge and Reasoning) Technology 0-4 cr. (Technology)	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 and 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 111 Art History Survey I
FIA 112 Art History Survey II
GEO 201 World Geography
GOV 207 International Politics
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
HRS 103 Honors Seminar Cross-Cultural Study
SOC 102 Social Problems
SOC 103 Gender, Culture and 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

HISTORY COURSES:

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

HUMANITIES COURSES:

ARB 101 Beginning Arabic I
ARB 102 Beginning Arabic II

CHN 101 Beginning Mandarin Chinese I
CHN 102 Beginning Mandarin Chinese II
CHN 111 Intermediate Mandarin Chinese I
CHN 112 Intermediate Mandarin Chinese II
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 216 Contemporary Literature
ENG 217 Literature and the Arts I
ENG 218 Literature and the Arts II
ENG 227 African American Literature I
ENG 228 African American Literature II
ENG 235 Introduction to Shakespeare
ENG 245 Women in Literature

FIA 220 Introduction to History of Photography
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



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 Survey of Music in the Twentieth Century
FIA 132 Introduction to Drama
FIA 232 Fundamentals of Drama

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
HRS 104 Honors Seminar in Interdisciplinary Studies

REQUIREMENTS FOR ALL PROGRAMS

GENERAL EDUCATION cont'd

- ITA 101** Beginning Italian I
- ITA 102** Beginning Italian II
- ITA 111** Intermediate Italian I
- ITA 112** Intermediate Italian II
- PHI 205** Introduction to Philosophy
- PHI 206** History of Ancient and Medieval Philosophy
- PHI 207** History of Modern Philosophy
- PHI 209** Social Justice
- PHI 210** Ethics
- PHI 212** Logic and 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 AND 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 103** Environmental Science
- BIO 104** A Survey of the Animal Kingdom
- BIO 105** Anatomy and Physiology I
- BIO 106** Anatomy and Physiology II
- BIO 108** Microbiology
- BIO 110** Human Heredity
- BIO 111** General Biology I
- BIO 112** General Biology II
- BIO 204** Introduction to Marine Biology
- BIO 208** Ecology
- CHE 101** College Chemistry
- CHE 105** Chemistry-Health Sciences
- 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
- COM 100** Communications Technologies
- CST 100** Introduction to Computer Applications

- CST 101** Introduction to Information Systems
- CST 115** Introduction to Computer Programming
- CST 120** The Internet
- CST 161** Computer Programming Fundamentals
- CST 226** Introduction to Operating Systems
- GEY 101** Physical Geology
- GEY 102** Historical Geology
- MAT 113** Math Applications (for A.A.S. degrees only)
- MAT 119** Algebra
- MAT 125** Survey of Special Topics in Mathematics
- MAT 127** Elementary Statistics
- MAT 143** Elementary Mathematics Analysis I
- MAT 144** Elementary Mathematics Analysis II
- MAT 146** Brief Calculus with Applications
- MAT 155** Elementary Mathematical Analysis
- 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
- MTR 101** Meteorology
- PHY 101/PHYL 111** General Physics I and Mechanics Lab

- PHY 102/PHYL 102** General Physics II and Lab
- PHY 111/PHYL 111** Mechanics and Mechanics Lab
- PHY 125/PHYL 125** Elements of Physics and Lab
- PHY 201/PHYL 201** Electricity and Magnetism and Lab

SOCIAL SCIENCE 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 102** Psychology of Personality
- PSY 204** Lifespan Development
- PSY 205** Child Psychology
- PSY 206** Adolescent Psychology
- PSY 212** Psychology of Adulthood and Aging
- SOC 101** Principles of Sociology
- SOC 273** Marriage and the Family

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. Transfer of credits to a four-year college is conditional upon the receiving college or university. Consult with a transfer advisor for more details.

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

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ACC 103	Accounting I	4
BUS 105	Organization and Management	3
CST 100	Introduction to Computer Applications	3
ENG 101	English Composition I	3
MAT 119	Algebra	4
		17

SPRING SEMESTER

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

SECOND YEAR

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

SPRING SEMESTER

ACC 204	Intermediate Accounting II	4
ACC 205	Cost Accounting	4
ACC 212	Federal Taxes II	2
ACC 290	Co-op Education Experience in Accounting	3
BUS 202	Business Law II	3
		16
Total Program Credits:		64

Are you great with numbers?

Do numbers rule your universe? Turn to PAGE 98 to learn about UNION County College's Associate in Science degree in Mathematics.

AMERICAN SIGN LANGUAGE AND DEAF STUDIES

ASSOCIATE IN SCIENCE DEGREE



The American Sign Language and Deaf Studies Program is designed for individuals who do not have a college degree 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 literacy 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. The 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. 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, effective written, spoken, and signed communication skills;
- 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 American Sign Language and its discourse styles;
- Analyze the social and cultural characteristics of American Deaf Culture, diverse populations within the Deaf Community, mainstream American Culture and diverse cultures in America;
- Explain contemporary issues within the Deaf Community;
- 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.

Conferences with respective instructor(s) are by appointment only. Information about the American Sign Language and Deaf Studies and American Sign Language and Deaf Studies Programs may be obtained at the ASL&DS and AEIP office (Room 205, Plainfield Campus) or the Advising, Career, and Transfer Services Office at the Plainfield Campus.

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

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ASL 101	American Sign Language I	4
ASL 102	Visual-Gestural Communication	2
ENG 101	English Composition I	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
		15

SPRING SEMESTER		
ASL 103	American Sign Language II	4
ASL 104	ASL Classifiers	2
HUD 104	Fingerspelling	1
ENG 102	English Composition II	3
MAT 125	Survey of Special Topics in Mathematics	4
SOC 102	Social Problems	3
		17

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ASL 200	Academic American Sign Language	3
ASL 201	American Sign Language III	3
ASL 205	Linguistics of American Sign Language	3
ENG 128	The Dynamics of Communication	3
COM 100	Communications Technologies	4
		16

SPRING SEMESTER		
ASL 202	American Sign Language IV	3
ASL 208	American Deaf Culture and History	3
ASL 210	American Sign Language and Deaf Literature	3
Humanities General Education		3
Lab Science General Education		4
		16

Total Program Credits 64 credits

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 and Deaf 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) 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 and 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) 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 Advising 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

FIRST YEAR

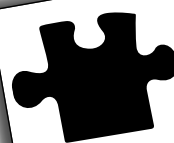
COURSE#	COURSE	CR.
FALL SEMESTER		
ASL 101	American Sign Language I	4
ASL 102	Visual-Gestural Communication	2
ENG 128	The Dynamics of Communications	3
		9
SPRING SEMESTER		
ASL 103	American Sign Language	4
ASL 104	ASL Classifiers	2
HUD 104	Fingerspelling	1
		7

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ASL 200	Academic American Sign Language	3
ASL 201	American Sign Language III	3
ASL 205	Linguistics of American Sign Language	3
		9
SPRING SEMESTER		
ASL 202	American Sign Language IV	3
ASL 208	American Deaf Culture	3
SLR 102	Service Learning	2
		8

THIRD YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 216	Contemporary Literature	3
ASL 210	ASL/Deaf Literature	3
		6
Total Program Credits:		39



Do you need a quicker way to your career?

Consider a Certificate program. From Criminal Justice to Photovoltaic studies, Certificate programs require fewer credit hours, and some can be completed in only two semesters!

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:

- Identify major concepts, key events, and leading figures in the area of American history, politics, and literature;
- Analyze critically the major political issues that concern our nation today;
- Describe the contributions that some American authors have made to developments in literature;
- Compare the experiences of various groups that have comprised and contributed to American society, i.e. African Americans, immigrants, Native Americans, women;
- Demonstrate an understanding of approaches from the humanities and social sciences to 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 advisor for details.

PROPOSED RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
HIS 101	Introduction to Western Civilization I	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
PSY 101	General Psychology	3
COM* OR FIA* OR	Modern Languages	3
		16

SPRING SEMESTER		
ENG 102	English Composition II	3
ENG 129	Public Speaking	3
HIS 102	Introduction to Western Civilization II	3
Lab Science	Gen Ed Requirement	4
SOC 101	Principles of Sociology	3
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 207	American Literature I	3
ECO 201	Principles of Economics I OR ECO 202 Principles of Economics II	3
HIS 201	United States History to 1865	3
GOV 201	American Government and Politics	3
Math/Lab Science/Technology	Gen Ed Requirement	4
		16

SPRING SEMESTER		
ENG 208	American Literature II	3
HIS 202	United States History Since 1865	3
GOV 202	American National Government	3
SOC 206	Minorities in American Life	3
		12

Total Program Credits: 60

*It is suggested that the American Studies student choose COM **OR** FIA **OR** Modern Languages electives from the following list:

COM 101, 102, 109, 209
FIA 108, 111, 112, 117, 120
Modern Languages (All)

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.

ARCHITECTURE

Option offered through the Engineering Program ASSOCIATE IN SCIENCE DEGREE



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

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

- Arrange and manage a collaborative design Charrette for/with local communities;
- Demonstrate computer literacy in 3D programming and use word processing, and other software applications;
- 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;
- Employ critical thinking skills in science, mathematics, and the fundamentals of architecture;

- Communicate architectural information effectively in visual, written, verbal and oral formats to a diverse multicultural audience;
- Use technology and library resources to conduct research related to architecture, mathematics, engineering, sustainability, the humanities and social science.

AFTER UNION COUNTY COLLEGE

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



**Are you
great with
numbers?**

Do numbers rule your universe?
Turn to PAGE 98 to learn about UNION
County College's Associate in Science
degree in Mathematics.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ARC 101	Architectural Design I	5
ARC 105	Introduction to Architecture and Culture	3
ENG 101	English Composition I	3
MAT 119	Algebra* OR Higher-Level Math Gen Ed course	4
		15

SPRING SEMESTER		
ARC 102	Architectural Design II	5
ENG 102	English Composition II	3
FIA 109	Introduction to Drawing	3
MAT 143	Elementary Mathematical Analysis I* OR Higher-Level Math Gen Ed course	4
		15

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
ARC 205	Architectural CAD Design			3
PHY 101	General Physics I			3
PHYL 111	Mechanics Laboratory			1
FIA 119	Introduction to Architectural History			3
ARC 218	Construction Methods and Materials			3
Social Science Gen Ed Requirement				3
				16

SPRING SEMESTER				
ARC 206	Architectural 3D Design			3
FIA 120	Architectural History			3
Humanities Gen Ed Requirement				3
Gen Ed Requirement*				3
Social Science OR Humanities Gen Ed Requirement				3
				15

Total Program Credits: 61

*Consult with the STEM Dean's office for courses recommended for transferring to a baccalaureate program.



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 and MIDI (Cubase and 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.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
COM 100	Communications Technologies	4
ENG 101	English Composition I	3
COM 103	Introduction to Radio Broadcasting	3
		10
SPRING SEMESTER		
COM 113	Audio Production I	3
FIA 105	Music Appreciation	3
PSY 101	General Psychology	3
		9

SECOND YEAR

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

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.

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 and Heating, Brakes, Steering and Suspension, Electrical and 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;
- Use automotive computer software applications to diagnose automotive problems and to generate technical service bulletins and procedures for repair of automotive problems;
- Perform laboratory procedures and assess the validity of experimental/diagnostic data;

- Employ critical thinking to solve automotive problems and apply automotive repair methods to satisfy business and industry standards;
- Express and interpret both technical and non-technical concepts orally and in written and electronic formats;
- Demonstrate information literacy through familiarity and the effective use of technical literature in the areas of automotive maintenance and repair.

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 and specialty shops, chain stores, municipalities, fleet and corporate facilities as well as self employment. This AAS degree may not be transferable to a four-year institution, but many of the non-technology courses may transfer.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER*		
AUT 100	Automotive Fundamentals	4
AUT 101	Steering/Suspension Systems	4
AUT 102	Manual Drive Trains	4
ENG 101	English Composition I**	3
MAT 113	Math Applications***	3
		18
SPRING SEMESTER		
AUT 103	Brake Systems	4
AUT 121	Automotive Electrical 1	4
CST 100	Introduction to Computer Applications	3
ENG 122	Introductory Technical Business Writing	3
		14

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
AUT 122	Automotive A/C and Heating	4
AUT 131	Automotive Engine Performance 1	4
AUT 201	Engine Repair	4
Humanities	Gen Ed Requirement	3
		15
SPRING SEMESTER		
AUT 202	Automotive Electrical 2	4
AUT 203	Automatic Transmission	4
AUT 232	Automotive Engine Performance 2	4
Social Science	Gen Ed Requirement	3
Gen Ed Requirement		3-4
		18-19
Total Program Credits:		65-66

*AUT 100 must be taken as a prerequisite except when a student has equivalent experience and approval of the appropriate Division.

**Course determined by English Placement Test

***Course determined by Math Placement Test



BIOLOGY

ASSOCIATE IN SCIENCE DEGREE



This degree program prepares students for advanced study at a four-year institution. The college has many articulation agreements with four-year colleges both in and outside the state.

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

- Explain the scientific method, including the reasoning process inherent in scientific inquiry, and the dynamic nature of scientific knowledge;
- Analyze biological data;
- Evaluate the impact of mankind and technology on the natural world and their ethical implications;
- Utilize critical thinking skills to understand and solve biological problems, differentiating scientific fact from opinion;
- Communicate the terminology, concepts, and principles of biology effectively in written, verbal, and electronic formats;
- Demonstrate competency in utilizing information technology to expand their current and future knowledge.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
BIO 111	General Biology I	4
CHE 111	General Chemistry I	4
ENG 101	English Composition I	3
Social Science Gen Ed Requirement		3
		14

SPRING SEMESTER		
BIO 112	General Biology II	4
CHE 112	General Chemistry II	4
ENG 102	English Composition II	3
Social Science or Humanities Gen Ed Requirement		3
		14

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
CHE 211	Organic Chemistry I	5
BIO	Elective	4
MAT 143	Elementary Mathematical Analysis I OR	
MAT 171	Unified Calculus I	4
Humanities Gen Ed Requirement		3
		16

SPRING SEMESTER		
CHE 212	Organic Chemistry II	5
BIO	Elective	4
MAT 144	Elementary Mathematical Analysis II OR	
MAT 172	Unified Calculus II	4
CST	Elective	3
		16

Total Program Credits: 60

Students must complete all developmental English courses before taking any credit level Biology course.

Is a 4-year degree in your future?

An Associate in Arts (A.A.) or Associate in 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.

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 advisor for details.

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 Advisor. The degree requirements consist of general education requirements and electives in preparation for a major area of study.

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;
- 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

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ACC 103	Accounting I	4
CST 100	Introduction to Computer Applications	3
ENG 101	English Composition I	3
History	Gen Ed Requirement	3
Social Science	Gen Ed Requirement	3
		16

SPRING SEMESTER		
ACC 104	Accounting II	4
BUS 101	Introduction to Contemporary Business OR BUS 105 Organization and Management	3
ENG 102	English Composition II	3
History	Gen Ed Requirement	3
Humanities	Gen Ed Requirement	3
		16

SECOND YEAR

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

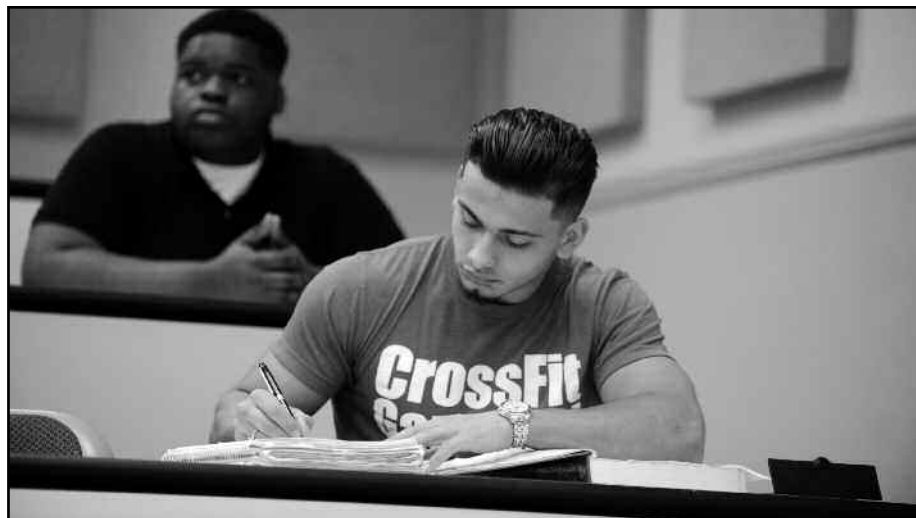
SPRING SEMESTER		
BUS 201	Business Law I	3
Humanities	Gen Ed Requirement	3
MAT 146	Brief Calculus with Application OR MAT 246 Business Statistical Analysis OR Lab Science	3-4
Diversity	Gen Ed Requirement	3
ENG 128	The Dynamics of Communication OR	
ENG 129	Public Speaking	3
		15-16

Total Program Credits: 64-65

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.



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

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ACC 103	Accounting I	4
BUS 101	Introduction to Contemporary Business	3
ECO 201	Principles of Economics I OR ECO 202 Principles of Economics II	3
ENG 101	English Composition I	3
MAT 113	Math Applications	3
		16
SPRING SEMESTER		
ACC 104	Accounting II	4
BUS 105	Organization and Management	3
CST 100	Introduction to Computer Applications	3
ENG 122	Introductory Technical and 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
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
BUS 201	Business Law I	3
BUS 208	Principles of Marketing History, Modern Language	3
	Gen Ed Requirement	3
Electives	Business, Administration Support OR Computer (CST) Courses*	7
		16
SPRING SEMESTER		
BUS 290	Co-op Education Experience in Business or	
ACC 290	Co-op Education Experience in Accounting	3
	Gen Ed Requirement	3
Electives	Business, Administrative Support OR Computer (CST) Courses*	10
		16
Total Program Credits:		64

* A total of 17 credits in Business, Administrative Support, or Computer (CST) 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 for 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.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ACC 103	Accounting I	4
BUS 101	Introduction to Business	3
ECO 201	Principles of Economics I OR ECO 202 Principles of Economics II	3
ENG 101	English Composition I	3
MAT 113	Math Applications OR MAT 119 Algebra	3-4
		16-17

SPRING SEMESTER		
ACC 104	Accounting I	4
BUS 105	Organization and Management	3
BUS 136	Retailing Techniques	3
ENG 102	English Composition II OR ENG 122 Introduction to Business and Technical Writing	3
CST 100	Introduction to Computer Applications OR CST 101 Introduction to Information Systems	3
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
BUS 201	Business Law I	3
BUS 208	Principles of Marketing	3
BUS 137	Salesmanship	3
BUS 138	Retail Buying and Merchandising	3
BUS 200	Small Business Management	3
PSY 101	General Psychology OR SOC 101 Principles of Sociology	3
		18

SPRING SEMESTER		
BUS 203	Principals of Advertising	3
BUS 210	Marketing and the Global Environment	3
BUS 290	Co-op Education Experience in Business	3
CST	Elective	3
History, Modern Language	Gen Ed Requirement	3
		15

Total Program Credits: 65-66

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!



CAD-CAM

CERTIFICATE OF ACHIEVEMENT



The CAD-CAM Certificate of Achievement is designed to provide the academic, technical and hands on experience to prepare students for entry into the workforce in engineering drawing and drafting, materials testing, and Computer Numerical Control (CNC) machine programming or operation. In addition, students can seek further on the job-training in mechanical engineering technology industry related jobs.

This program will allow students to gain exposure to the design, development, testing, and manufacture of industrial machinery, consumer products, and other equipment.

Students will make drawings and layouts, generate CNC codes from 3D simulation, operate a CNC machine, record and analyze data, make calculations and estimates, and report their findings.

The CAD-CAM Certificate of Achievement contributes to further academic growth beyond the Certificate of Achievement level by providing 12 credits of transfer toward an AAS degree in Mechanical Engineering Technology.

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

- Employ critical thinking and problem solving skills to solve technical problems in general and to make drawings according to standards;
- Demonstrate knowledge of the technical terms and principles of mechanical engineering technology and design;
- Express and interpret both technical and non-technical concepts orally and in written and electronic formats;
- Demonstrate information literacy through familiarity and the effective use of technical information resources in the field of mechanical engineering technology and design.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
MET 109	Computer-Aided Drafting	3
MET 106	Engineering Materials and Processes	3
		6
SPRING SEMESTER		
MET 104	Engineering Drawings	3
MET 219	CAD/CAM	3
		6
Total Program Credits:		12

AFTER UNION COUNTY COLLEGE

Graduates can enter the workforce in engineering drawing, drafting materials testing, or Computer Numerical Control (CNC) machine programming or operation. Graduates can also seek further academic growth by transferring their 12 credits from this Certificate of Achievement toward an A.A.S. degree in Mechanical Engineering Technology.

CHEMISTRY

ASSOCIATE IN SCIENCE DEGREE



This is a degree program that combines 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.

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.

This program assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the College Level Mathematics exam. Contact the STEM Division for further information.

All students enrolled in the Chemistry Program are recommended to take the College Level Mathematics exam to determine advanced mathematics placement if needed. Test scores will determine the sequence of mathematics courses required.

Consultation with the STEM Division is strongly advised.

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

- Evaluate how chemical theories explain the natural world;
- Identify and analyze a chemical problem in terms of its significant components and the information needed to solve it;
- Correlate theory and practice in the chemical sciences;
- Perform laboratory experiments and measurements that include graphing and analyzing data;
- Research, assess and effectively communicate chemical information 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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
CHE 111	General Chemistry I	4
MAT 171	Unified Calculus I	4
CST 161	Computer Programming Fundamentals OR CST 115 Introduction to Computer Programming	3-4
Humanities Gen Ed Requirement		3
		17-18

SPRING SEMESTER		
ENG 102	English Composition II	3
CHE 112	General Chemistry II	4
PHY 111	Mechanics OR PHY 101 General Physics I OR BIO 111 General Biology I*	4
MAT 172	Unified Calculus II	4
		15

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
CHE 211	Organic Chemistry I	5
PHY 201	Electricity and Magnetism OR PHY 102 General Physics II OR BIO 112 General Biology II*	4
ENG 128	The Dynamics of Communication OR ENG 129 Public Speaking	3
Humanities Gen Ed Requirement		3
		15

SPRING SEMESTER		
CHE 212	Organic Chemistry II	5
MAT 265	Linear Algebra	3
Social Science Gen Ed Requirement		3
Any Gen Ed Course		3
		14

Total Program Credits: 61-62

*BIO 111 and BIO 112 are recommended for students interested in medicine, pharmacy, biochemistry and related science fields. Please consult with the STEM Division and/or advisor from your potential transfer institution.

COMMUNICATIONS

ASSOCIATE IN ARTS DEGREE



The Communications curriculum is designed for transfer to a bachelor's program in communications or a related discipline. Options in Journalism and Public Relations or Media are available for students who have decided that they are particularly interested in a certain field. This program is designed for students who are undecided regarding specialization and who are interested in the fields of education, law, or mass communications. Students may consult with the Division Dean's office regarding appropriate option and course selections for their specific needs and interest.

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

- Discuss and analyze current social and political issues and events, both orally and in writing.
- Demonstrate proficiency with current productivity software and apply them to the diverse field of communications.
- Compare and contrast, both orally and in writing, prevalent cultural narratives and texts and the various media used to convey them.
- Demonstration, both orally and in writing, the ability to utilize various communication skills in order to present their own point of view to others in a clear manner using verbal, written and visual techniques.
- Demonstrate, in writing, the skills necessary to research the historical aspects of current events and demonstrate an analysis of the cultural impact that historical events have on current events.

AFTER UNION COUNTY COLLEGE

Graduates can prepare to transfer into a four-year college or university Communications 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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
COM 100	Communications Technologies	4
COM 101	Mass Communications	3
ENG 101	English Composition I	3
HIS	General Education Requirement	3
		13
SPRING SEMESTER		
COM	Elective (100-level)	3
ENG 102	English Composition II	3
ENG 128	The Dynamics of Communication	3
OR		
ENG 129	Public Speaking	3
Humanities	General Education Requirement	3
Lab Science	General Education Requirement	4
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
COM	Elective	3
English HUM	General Education (200-level)	3
History	General Education Requirement	3
Diversity	General Education Requirement	3
PSY 101	General Psychology I	3
		15
SPRING SEMESTER		
COM 201	Issues in Mass Media	3
COM	Elective (200-level)	3
GOV 201	American Government and Politics	3
OR		
GOV 202	American National Government	3
HUM	General Education Requirement	3
MAT 125	Survey of Special Topics in Mathematics	3
OR		
MAT 127	Elementary Statistics	4
		16
Total Program Credits		60

COM 100 LEVEL ELECTIVES:

COM 102, COM 103, COM 105, COM 106, COM 107, COM 108, COM 109, COM 112, COM 113

COM 200 LEVEL ELECTIVES:

COM 202, COM 206, COM 207, COM 209, COM 212, COM 213, COM 216

COMPUTER INFORMATION SYSTEMS AND 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:

- Create an efficient normalized database and manipulate it using structured query language given a set of specifications;
- Identify and analyze user needs and take them into account in the selection, creation, evaluation, documentation, and administration of computer-based systems;
- Utilize critical thinking and current technology to effectively integrate IT-based solutions into the user environment;
- Discuss the ethical and social responsibilities necessary for IT businesses and organizations;
- Use written, oral and electronic formats to effectively and professionally communicate to diverse multicultural audiences with a business environment.

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

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ACC 103	Accounting I	4
BUS 105	Organization and Management	3
CST 100	Introduction to Computer Applications	3
ENG 101	English Composition I	3
Humanities Gen Ed Requirement		3
		16

SPRING SEMESTER		
CST 101	Introduction to Information Systems	3
ADM 216	Access	3
ENG 102	English Composition II	3
Humanities Gen Ed Requirement		3
Social Science Gen Ed Requirement		3
		15

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
BUS 201	Business Law I	3
CST 204	Database Management Systems	3
Lab Science	Gen Ed Requirement	4
ENG*122	Technical and Business Writing	3
	OR ENG 128 The Dynamics of Communication OR	
	ENG 129 Public Speaking	
Math 4-Credit	Gen Ed Requirement**	4
		17

SPRING SEMESTER		
CST 202	Systems Analysis and Design	3
Social Science Gen Ed Requirement		3
Math Gen Ed Requirement*		3-4
CST Elective		3
		12-13

Total Program Credits: 60-61

*Transfer students should consult with transfer institution

COMPUTER SCIENCE

ASSOCIATE IN SCIENCE DEGREE



The Computer Science transfer degree program is designed for students who intend to continue their studies at a four-year college or university. This curriculum builds a solid theoretical and mathematical foundation needed to pursue advanced studies in computer science. Students will explore secure coding, testing and validation, computer architecture, operating systems, computational methods, analysis of algorithms, and the development of data structures. This course of study is supported by relevant mathematics, science, and general education courses. Computer scientists are problem solvers and need strong critical thinking skills and must be able to apply these analytical skills to a variety of challenging problems and domains.

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

- Use current techniques, skills, and tools with computer programming languages to solve real-world problems;
- Design, implement, test, and evaluate complete, logical programs with documentation that meet defined specifications;
- Discuss the ethical and societal ramifications of software applications and computing technology;
- Use written, oral, and electronic formats to effectively and professionally communicate to diverse multicultural audiences with an organization;
- Use software methods and algorithmic thinking to design technological solutions for a variety of different 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

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
Math 4-credit	General Education Requirement	4
CST 161	Computer Programming Fundamentals	4
ENG 101	English Composition I	3
Social Science	General Education Requirement	3
		14
SPRING SEMESTER		
Math	General Education Requirement	3-4
CST 162	Computer Algorithms	4
ENG 102	English Composition II	3
Humanities	General Education Requirement	3
		13-14

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
MAT 267	Discrete Mathematics	3
CST 261	Data Structures	4
CST 226	Operating Systems	3
PHY 101	General Physics II* OR	
PHY 111	Mechanics**	3
PHYL 111	Mechanics Laboratory**	1
CST	Elective***	3
		17
SPRING SEMESTER		
CST 202	Systems Analysis and Design	3
CST 222	Computer Organization, Architecture, and Assembly Language	4
Social Science	General Education Requirement OR	
Humanities	General Education Requirement	3
CST	Elective***	3
CST	Elective***	3
		16
Total Program Credits:		60-61

* MAT 171, MAT 172 is the recommended sequence

** CHE 111 may be substituted. Check with the requirements of transfer institution.

*** Any CST course except CST 100.

The following list is recommended:

- CST 122 Web Application Development
- CST 175 Networking Fundamentals
- CST 204 Database Management
- CST 210 Principles of Cybersecurity
- CST 212 Programming for Mobile Devices

COMPUTER SCIENCE/ENGINEERING

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

FOR COMPUTER ENGINEERING SEE "ENGINEERING" ON PAGE 85



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.

The stated sequence of courses for the Computer Science / Engineering option assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the College Level Mathematics exam. Contact the STEM Division for further information.

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

- Apply knowledge of computer system components, organizations, and software operating systems to evaluate computer applications;
- Apply knowledge of computer algorithms, data structures, assembly language, and programming and data processing skills to analyze computer applications;
- Analyze and assess the validity of experimental data;
- Analyze problems of a technical nature and evaluate the merits of alternative proposals in the design of computer based solutions;
- Express and interpret both technical and non-technical concepts orally, in writing and in electronic formats;
- Demonstrate information literacy through familiarity and the effective use of related information resources.

AFTER UNION COUNTY COLLEGE

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

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
CHE 111	General Chemistry I	4
CST\162	Computer Algorithms	4
ENG 101	English Composition I	3
MAT 171	Unified Calculus I	4
EKG 105	Introduction to Fundamentals of Engineering	3
		18

SPRING SEMESTER		
ENG 102	English Composition II	3
CST 261	Data Structures	4
MAT 172	Unified Calculus II	4
PHY 111	Mechanics	3
PHYL 111	Mechanics Laboratory	1
		15

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
CST 226	Introduction to Operating Systems	3
MAT 271	Unified Calculus III	4
PHY 201	Electricity and Magnetism	3
PHYL 201	Electricity and Magnetism Laboratory	1
ECO 201	Principles of Economics I OR	
	ECO 202 Principles of Economics II	3
PSY 101	General Psychology OR	
	SOC 101 Principles of Sociology	3
		17

SPRING SEMESTER		
CST 222	Computer Organization, Architecture, and Assembly Language	4
MAT 272	Differential Equations	4
MAT 246	Business Statistical Analysis	4
	History Gen Ed Requirement	3
		15
Total Program Credits:		65



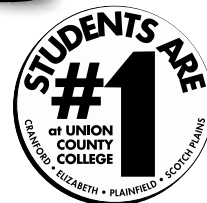
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heading off to nationals**



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CRIMINAL JUSTICE

ASSOCIATE IN SCIENCE 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.

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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
CRJ 101	Introduction to Criminal Justice	3
ENG 101	English Composition I	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
Lab Science	Gen Ed Requirement	4
CST 100	Intro to Computer Applications	3
		17

SPRING SEMESTER

CRJ 102	Police Organization and Administration	3
ENG 102	English Composition II OR	
ENG 128	The Dynamics of Communication OR	
ENG 129	Public Speaking	3
HIS 201	United States History to 1865	3
PSY 101	General Psychology	3
CRJ	Elective	3
		15

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
CRJ 201	Police Management Systems	3
CRJ 203	Criminal Investigations	3
SOC 101	Principles of Sociology	3
Humanities	Gen Ed Requirement	3
CRJ	Elective	3
		15

SPRING SEMESTER

CRJ 205	Police Role in the Community	3
GOV 201	American Government and Politics	3
SOC 206	Minorities in American Life	3
PSY 207	Social Psychology	3
CRJ	Elective	3
		15

Total Program Credits: 62

CRJ Electives (9 credits total):
 CRJ 109 Correctional Administration **OR**
 CRJ 206 Criminal Law **OR**
 CRJ 207 Special Police Operations **OR**
 CRJ 223 Criminal Justice Problems in Business and Industry

Do you need a quicker way to your career?

Consider a Certificate program. From Criminal Justice to Photovoltaic studies, Certificate programs require fewer credit hours, and some can be completed in only two semesters!

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

COURSE#	COURSE	Cr.
CRJ 101	Introduction to Criminal Justice	3
CRJ 102	Police Administration	3
CRJ 201	Police Management Systems	3
CRJ 203	Criminal Investigation	3
CRJ 205	Police Community Relations	3
CRJ 206	Criminal Law OR CRJ 208 Community Supervision of the Offender	3
CRJ 223	Security in Business and Industry	3
ENG 101	English Composition I	3
PSY 101	General Psychology	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics OR Science Gen Ed Requirement OR CST 100 Introduction to Computer Applications	3-4
Total Program Credits:		30-31

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.

* 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.

• UNION COUNTY COLLEGE IS ONE OF THE TOP PROVIDERS OF DISTANCE EDUCATION COURSES IN NEW JERSEY •

CYBERSECURITY

Option offered through 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.

This degree option will provide a solid mathematics and computer science foundation for students continuing studies in cybersecurity, given the natural and necessary foundation of mathematics appropriate to cybersecurity applications. Union County College graduates will have the opportunity to matriculate at four-year colleges, pursuing a baccalaureate degree in cybersecurity.

This program assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the College Level Mathematics exam. Contact the STEM Division for further information.

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;
- Apply mathematical theorems to solve classical problems and real-world applications;
- Formulate and evaluate possible solutions to problems, and select and defend the chosen solutions with mathematical proofs or by the scientific method as appropriate;
- Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations;
- Construct graphs and charts, interpret them, and draw appropriate conclusions;
- Use technology in analyzing and solving mathematical problems;
- Address an information need by locating, evaluating, and effectively using information.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year college or university as a junior with a solid subject matter foundation to pursue a baccalaureate degree in Mathematics Education and Mathematics Teaching Certification. Consult with the STEM Division for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
MAT 171	Unified Calculus I	4
PHY 101	General Physics I*	3
	WITH PHYL 111 Mechanics Lab*	1
CST 162	Computer Algorithms	4
		15

SPRING SEMESTER		
ENG 102	English Composition II	3
MAT 172	Unified Calculus II	4
PHY 102	General Physics II*	3
	WITH PHYL 102 General Physics II Lab *	1
CST 261	Data Structures	4
HIS 101	Introduction to Western Civil. I	3
		18

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
	Humanities Gen. Ed. Requirement**	3
MAT 271	Unified Calculus III	4
MAT 265	Linear Algebra	3
CST 210	Principles of Cybersecurity	3
Elective	Social Science Gen. Ed. Requirement***	3
		16

SPRING SEMESTER		
MAT 272	Differential Equations	4
MAT 267	Discrete Mathematics	3
MAT	Elective 200 Level Mathematics	3
CST 202	Systems Analysis and Design	3
CST 222	Computer Organization, Architecture, and Assembly Language	4
		17

Total Program Credits: 66

This plan assumes the completion of all prerequisites for the courses or satisfactory performance on the College Level Mathematics Exam.

*PHYSICS COURSES – Students whose transfer institution requires a calculus based physics course should consult with the STEM Dean's office to schedule PHY111 and PHY 201 instead.

**HUMANITIES GEN ED COURSES – PHI 210, Ethics, is recommended and credit is accepted in transfer by Stevens Institute of Technology

***SOCIAL SCIENCE GEN ED COURSES

The following social science courses are recommended:

GOV 201 American Government and Politics
PSY 101 General Psychology
SOC 101 Principles of Sociology



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 chairside with the dentist. Chairside duties include receiving and preparing the patient for treatment; sterilizing and selecting instruments; assembling materials and equipment; organizing the treatment area; maintaining the operative field; exposing, and processing dental radiographs; and providing instructions in oral hygiene and nutritional advising. 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 occlusal rims are also completed 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 Rutgers-Union County College curriculum.

By virtue of an agreement between Union County College and the **Rutgers School of Health Related Professions (SHRP)** 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.

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 Rutgers-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:

COURSE#	COURSE	CR.
ENG 101	English Composition I+	3
PSY 101	General Psychology+	3
BIO 105	Anatomy and Physiology	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	CR.
SPRING SEMESTER		
ADEC 1110	Dental Head and Neck Anatomy (Core Course)	3
ADEC 1209	Introduction to the Dental Profession (Core Course)	4
ADEC 1240	Medical Emergencies in the Dental Office (Core Course)	1
ADEC 1250	Dental Materials (Core Course)	3
ADEC 1269	Dental Specialties (Core Course)	1
DENA 1149	Introduction to Dental Assisting	3
		15

SUMMER SEMESTER		
DENA 1278	Pre- Clinical Assisting	0
		0

FALL SEMESTER		
ADEC 1205	Dental Health Education I	1
ADEC 1219	Dental Radiology I	3
ADEC 2460	Practice Management	1
DENA 1232	Dental Science	2
DENA 1279	Clinical Assisting	4
		11

Total Program Credits: **36**

+ Must be completed with a minimum grade of C prior to the start of dental course work in January

- Students register for the professional phase courses through Rutgers and pay the Rutgers 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-enhanced. 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 the Rutgers 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.rutgers.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:

- Anatomy and Physiology 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 of the three courses listed above. 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.

DENTAL HYGIENE

ASSOCIATE IN APPLIED SCIENCE DEGREE



By virtue of an agreement between Union County College and the Rutgers School of Health-Related Professions (SHRP), 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, Rutgers-SHRP 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 – August 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 Clinical Services courses;
- 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 Rutgers and pay the Rutgers 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 ensure that the Board will issue a license.

RECOMMENDED SEQUENCE

PRE-ADMISSION REQUIREMENTS

COURSE#	COURSE	CR.
**PRE-ADMISSION REQUIREMENTS		
BIO 105	Anatomy and Physiology I	4
BIO 106	Anatomy and Physiology II	4
BIO 108	Microbiology	4
CHE 105	Chemistry-Health Sciences	4
ENG 101	English Composition I	3
PSY 101	General Psychology I	3

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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 Composition II	3
ENG 129	Public Speaking	3
MAT 119	Algebra	4

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**** MUST BE COMPLETED PRIOR TO APPLICATION TO THE PROGRAM MINIMUM 2.85 GPA**

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ADEC 1110	Dental Head and Neck Anatomy	3
ADEC 1209	Introduction to Dental Professions	4
DENH 1109	Introduction to Clinical Dental Hygiene	4
ADEC 1250	Dental Materials	3
ADEC 1240	Medical Emergencies	1

15

SPRING SEMESTER

ADEC 1205	Dental Health Education	1
ADEC 1219	Dental Radiology	3
DENH 1231	Clinical Dental Hygiene I	3
DENH 1249	Clinical Services I	3
DENH 1280	Oral Embryology and Histology	2

12

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
DENH 1220	Nutrition	2
DENH 2300	Oral Pathology	2
DENH 2310	Dental Health Ed/Community Dent. Health	2
DENH 2320	Pharmacology and Oral Medicine	1
DENH 2321	Periodontology I	2
DENH 2332	Clinical Dental Hygiene II	2
DENH 2349	Clinical Services II	3
ADEC 1269	Dental Specialties I	1

15

SPRING SEMESTER

ADEC 2460	Practice Management	1
DENH 2459	Dental Specialties II	1
DENH 2410	Capstone Seminar	2
DENH 2422	Periodontology II	2
DENH 2449	Clinical Services III	3
DENH 2453	Pain Control	1

10

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 2.85 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.

Application deadline is August 1, annually.

Candidates are rank-ordered according to GPA of the six courses listed below. Performance in additional college level course work and dental work experience are considered although not required.

The following college level courses must be completed with a minimum grade point average (GPA) of 2.85 (C+) or above:

Prerequisite Courses	Credits
English Composition I	3
Anatomy and Physiology I	4
Anatomy and 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.**



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.

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;
- Demonstrate the ability to access and utilize various sources of information such as the library and the internet;
- Develop skill in quantitative and scientific reasoning.

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

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
	Lab Science Gen Ed Requirement	4
MAT 119	Algebra	4
PSY 101	General Psychology	3
		14

SPRING SEMESTER		
SOC 101	Principles of Sociology	3
ENG 102	English Composition II	3
	Lab Science Gen Ed Requirement	4
PSY 205	Child Psychology	3
	Fine Arts Gen Ed Requirement	3
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 128	The Dynamics of Communication	3
	Fine Arts Gen Ed Requirement	3
EDU 205	Educational Psychology	3
HIS 201	United States History to 1865	3
CST 111	Integrating Technology in the Curriculum	3
		15

SPRING SEMESTER		
EDU 215	Field Work in Education	3
HIS 202	United States History since 1865	3
GEO 201	World Geography	3
	Humanities Gen Ed Requirement	3
ENG 209	World Literature I	3
		15
Total Program Credits:		60

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.

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;
- Demonstrate the ability to access and utilize various sources of information such as the library and the internet;
- Develop skill in quantitative and scientific reasoning.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
	Lab Science Gen Ed Requirement	4
MAT 119	Algebra	4
HIS 201	United States History to 1865	3
		14
SPRING SEMESTER		
PSY 101	General Psychology	3
ENG 102	English Composition II	3
HIS 202	United States History since 1865	3
	Lab Science Gen Ed Requirement	4
SOC 101	Principles of Sociology	3
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
MAT 127	Elementary Statistics OR	
MAT 125	Survey of Special Topics in Mathematics	4
EDU 205	Educational Psychology	3
	Humanities Gen Ed Requirement	3
PSY 206	Adolescent Psychology	3
ENG 209	World Literature	3
		16
SPRING SEMESTER		
EDU 215	Field Work in Education	3
ENG 128	The Dynamics of Communication	3
	Diversity Gen Ed Requirement	3
	Humanities Gen Ed Requirement	3
	Fine Arts Gen Ed Requirement	3
		15
Total Program Credits:		61

Is a 4-year degree in your future?

An Associate in Arts (A.A.) or Associate in 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.

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.

EDUCATIONAL INTERPRETER PROGRAM (EIP)

American Sign Language – English Interpreters in the Pre-K to 12th Grade Academic Setting CERTIFICATE OF ACHIEVEMENT



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 Division Dean's office and official transcript review is required 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, Psychosocial 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

CERTIFICATE COURSES

COURSE#	COURSE	CR.
FALL SEMESTER		
EIP 202	Language Development for the Educational Interpreter	3
EIP 204	Ethics and Laws for Educational Interpreters	3
DBI 210	Deaf-Blind Interpreting and Interpreting Strategies	3
		9
SPRING SEMESTER		
EIP 201	Methods – Teaching and Curriculum for Educational Interpreters	3
EIP 203	Child Development for Educational Interpreters	3
EIP 207	Disability Laws for Educational Interpreters	1
		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.

ELECTRONICS/ELECTROMECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE



The Engineering Technology program provides a pathway to employment as well as continuation at a bachelor level in Engineering Technology. The program allows the student to choose from two concentrations in Electrical and Mechanical Engineering Technology.

Career Paths:

A graduate of this program has the option of entering the job market as an entry level member of the technical or engineering staff. The specific job title is determined by the specific technology track taken.

Electronics/Electromechanical Engineering Technology graduates have the option of working as a field service technician or laboratory technician with firms in the communication, computer, electrical, medical, or transportation industries.

Mechanical Engineering Technology graduates have the option of working in areas of Computer-Aided Design, Machinery and Tool Design, Computer Integrated Manufacturing, Facilities Design, Electronic Packaging, CAD/CAM, and Materials Testing.

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

- Demonstrate theoretical and practical competency in engineering technology, including the basic principles of fluid mechanics, statics, and strength of materials;
- Perform laboratory procedures and assess the validity of experimental/diagnostic data;
- Develop and execute implementation strategies for installation and maintenance of systems and apply computer-aided drafting skills based on industry standards;
- Employ critical thinking to solve technical problems, in general, and to apply

engineering technology problem solving methods based on business and industry standards;

- Express and interpret both technical and non-technical concepts orally, in writing, and in electronic formats;
- Demonstrate information literacy through familiarity and the effective use of technical documents in the field of mechanical engineering technology.

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.

TRACK ELECTIVES:

Electronics/Electromechanical Engineering Technology Track:

First Year, Spring Semester

EET 102, Principles of AC Circuits, 3 credits
EET 111, Digital Computer Fundamentals, 4 credits

Second Year, Fall Semester

EET 270, Photovoltaic (PV) Systems, 4 credits
HIS 101, Introduction to Western Civilization I, 3 credits
HIS 102, Introduction to Western Civilization II, 3 credits
MAT 172, Unified Calculus II, 4 credits

Second Year, Spring Semester

EET 211, Computer Systems/Microprocessors, 4 credits
EET 204, Electromechanical Devices and Systems/Robotics, 4 credits
ECO 202, Principles of Economics II, 3 credits

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
MAT 155 ¹	Elementary Mathematical Analysis	5
CST 115	Introduction to Computer Programming	3
MET 109	Computer-Aided Drafting	3
EET 101	Principles of DC Circuits	4
		18

SPRING SEMESTER

ENG 102	English Composition II	3
MAT 171	Calculus I	4
MET 112	Mechanics-Statics	3
Track Elective		3-4
Track Elective		3-4

16-17

SECOND YEAR

COURSE#	COURSE	LEC.	LAB	Cr.
FALL SEMESTER				
Humanities	General Education ²			3
Track Elective				3-4
Track Elective				3-4
PHY 101	General Physics I			3
PHYL 111	Mechanics Laboratory			1
				13-15

SPRING SEMESTER

Social Science	General Education ³			3
PHY 102	General Physics II			3
PHYL 102	General Physics II Laboratory			1
Track Elective				3-4
Track Elective				3-4
				14

Total Program Credits: 65

Notes:

- 1 Students may take MAT 143 and MAT 144 in place of MAT 155
- 2 Students are encouraged to take HIS 101 or HIS 102 as the Humanities General Education.
- 3 Students are encouraged to take ECO 202 as the Social Science General Education.

Mechanical Engineering Technology Track:

First Year, Spring Semester

EET 111, Digital Computer Fundamentals, 4 credits
MET 104, Engineering Drawings, 3 credits
MET 219, CAD/CAM, 3 credits

Second Year, Fall Semester

CIT 210, Strength of Materials, 3 credits
CIT 215, Fluid Mechanics, 3 credits
HIS 101, Introduction to Western Civilization, 3 credits
HIS 102, Introduction to Western Civilization II, 3 credits
MAT 172, Unified Calculus II, 4 credits
MET 106, Engineering Materials and Processes, 3 credits

Second Year, Spring Semester

ECO 202, Principles of Economics II, 3 credits
EET 211, Computer Systems/Microprocessors, 4 credits
MET 219, CAD/CAM, 3 credits



EMERGENCY MEDICAL STUDIES

CERTIFICATE



The Emergency Medical Studies Certificate is intended for students who are interested in helping and treating patients in an emergency setting outside of the hospital. Prospective students should have interest in pathophysiology, basic medical concepts, patient care and be able to function effectively in a dynamic work environment.

The Emergency Medical Technician program of the certificate of achievement meets or exceeds the National Standard Curriculum set forth by the US Department of Transportation and adheres to New Jersey State Emergency Medical Technician Regulations NJAC 8:40 and 8:40A. 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 Certificate in Emergency Studies is intended for prospective students that have obtained an academic degree or for those interested in a healthcare career.

EMERGENCY MEDICAL STUDIES CERTIFICATE ENTRANCE REQUIREMENTS:

Prospective students must meet the following requirements to be accepted into the program:

- Have a current health care Provider CPR certification, or completed EMT 100 prior to enrolling in EMT 106.

Further Emergency Medical Studies Certificate Information:

- The mandatory orientation session is held in one week prior to the start of each semester. The exact date will be provided upon enrollment in EMT 106. There is no makeup session for this mandatory

orientation session.

- Students are required to submit proof of current good general health and vaccination status results at orientation in order to meet the clinical portion of the program. The fees associated with these tests are paid by the student.
- Students should refer to the course syllabi for exact meeting dates and times.

Upon successful completion of the Emergency Medical Studies graduates will be able to:

- Perform competently in the roles and responsibilities outlined in the NJ State emergency medical technician scope of practice;
- Manage pre-hospital patient care based on appropriate emergency medicine and pre-hospital care science for individuals of all age groups;
- Demonstrate critical thinking in decision-making processes to improve the health and welfare of pre-hospital patients;
- Communicate effectively, orally and in writing, with pre-hospital patients, their families, and fellow health team members, maintaining a professional manner and patient confidentiality.

RECOMMENDED SEQUENCE

FALL SEMESTER

COURSE#	COURSE	Cr.
EMT 106	Emergency Medical Technician	10
ENG 101	English Composition I	3
PSY 101	General Psychology	3
OR		
PED 101	Concepts of Adults Fitness	2
		15-16

SPRING SEMESTER

CST 100	Introduction to Computer Applications	3
SOC 101	Principles of Sociology	3
BUS 107	Human Resources Management	3
ALH 161	Medical Terminology	3
BIO 102	Human Biology	4
		16
Total Program Credits		33-34

NOTE: For specific course transferability please contact the Program Director

AFTER UNION COUNTY COLLEGE

After successful completion of the licensing/certification exams, graduates of our program may obtain both a national and New Jersey Emergency Medical Technician (EMT) License making the graduate eligible for employment at an EMT service nationally. Graduates can apply to an Allied Health Science program (ie: Health Science, Licensed Practical Nursing, Paramedic Studies, Physical Therapy Assistant), to the Sports Management Program to complete an Associate's Degree or to a four-year institution for continuation of a bachelor's degree.

EMERGENCY MEDICAL STUDIES

CERTIFICATE OF ACHIEVEMENT



The Emergency Medical Studies Certificate of Achievement is intended for students who are interested in helping and treating patients in an emergency setting outside of the hospital. Prospective students should have interest in pathophysiology, basic medical concepts, patient care and be able to function effectively in a dynamic work environment.

The Emergency Medical Technician program of the certificate of achievement meets or exceeds the National Standard Curriculum set forth by the US Department of Transportation and adheres to New Jersey State Emergency Medical Technician Regulations NJAC 8:40 and 8:40A. 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 Certificate of Achievement in Emergency Studies is intended for prospective students that have obtained an academic degree or for those interested in a healthcare career

EMERGENCY MEDICAL STUDIES CERTIFICATE OF ACHIEVEMENT ENTRANCE REQUIREMENTS:

Prospective students must meet the following requirements to be accepted into the program:

- Have a current Health Care Provider CPR certification, or completed EMT 100 prior to enrolling in EMT 106.

Further Emergency Medical Studies Certificate of Achievement Information:

- The mandatory orientation session is held in one week prior to the start of each semester. The exact date will be provided upon enrollment in EMT 106. There is no makeup

session for this mandatory orientation .

- Students are required to submit proof of current good general health and vaccination status results at orientation in order to meet the clinical portion of the program. The fees associated with these tests are paid by the student.

- At times, the EMT 106 Program may not adhere to the published college calendar. Students should refer to the course syllabi for exact meeting dates and times.

Upon successful completion of the Emergency Medical Studies Certificate of Achievement graduates will be able to:

- Meet the minimum requirements for eligibility to sit for both the National Registry of Emergency Medical Technicians (NREMT) Emergency Medical Technician - Basic exam and the New Jersey State Department of Health and Senior Services - Office of Emergency Medical Services EMT Basic examination enabling them to become licensed providers;
- Perform competently in the roles and responsibilities outlined in the New Jersey state emergency medical technician scope of practice;
- Obtain employment as an entry-level Emergency Medical Technician with an EMS agency in New Jersey;
- Manage pre-hospital patient care based on appropriate emergency medicine and pre-hospital care science;
- Demonstrate critical thinking in decision-making processes to improve the health and welfare of pre-hospital patients.

RECOMMENDED SEQUENCE

FALL SEMESTER

COURSE#	COURSE	CR.
EMT 106	Emergency Medical Technician	10
ENG 101	English Composition I	3
PSY 101	General Psychology	3
OR		
CST 100	Introduction to Computer Applications	3
OR		
PED 101	Concepts of Adults Fitness	2

Total Program Credits **15 or 16**

NOTE: For specific course transferability please contact the Program Director

AFTER UNION COUNTY COLLEGE

After successful completion of the licensing/certification exams, graduates of our program may obtain both a national and New Jersey Emergency Medical Technician (EMT) License making the graduate eligible for employment at an EMT service nationally. Graduates may enroll in a full Emergency Medical Sciences Certificate program make application into a two-year Allied Health Science program (i.e.: Health Science Licensed Practical Nursing, Paramedic Studies, Physical Therapy Assistant), Sports Management Program or to a four-year institution for continuation of a bachelor's degree.

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.

The stated sequence of courses for the Engineering program assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the College Level Mathematics exam. Contact the STEM Division for further information.

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

- Employ computer software applications to represent and solve technical problems;
- Analyze problems of a technical nature and evaluate the merits of alternative proposals in the design of computer based solutions;
- Perform laboratory procedures and assess the validity of experimental/diagnostic data;
- Employ critical thinking and problem solving skills to solve technical problems;
- Express and interpret both technical and non-technical concepts orally, in writing, and in electronic formats;
- Demonstrate information literacy through familiarity and the effective use of engineering information resources.

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 advisor for details.

RECOMMENDED SEQUENCE
SEE COURSE PREREQUISITES FOR
MAT 171, EGG 105, AND CST 162

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
CHE 111	General Chemistry I	4
EGG 111	Engineering and Computer Graphics	2
ENG 101	English Composition I	3
MAT 171	Unified Calculus I	4
EGG 105	Introduction to Fundamentals of Engineering	3
		16

SPRING SEMESTER		
ENG 102	English Composition II	3
	Technical Elective Select from list below	3-4
MAT 172	Unified Calculus II	4
PHY 111	Mechanics	3
PHYL 111	Mechanics Laboratory	1
		14-15

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
	Tech Elective Select from list below	3-5
MAT 271	Unified Calculus III	4
PHY 201	Electricity and Magnetism	3
PHYL 201	Electricity and Magnetism Laboratory	1
	History Gen Ed Requirement	3
		14-16

SPRING SEMESTER		
	Technical Elective Select from list below	3-5
	Technical Elective Select from list below	3
MAT 272	Differential Equations	4
ECO 202	Principles of Economics II	3
	Humanities or Social Science Gen Ed Requirement	3
		16-18

Total Program Credits: 60-65

Technical Elective credits require approval of Division Dean's office or designee and are chosen from list below.

CHE 112/CHEL, CHE 211/CHEL, CHE 212/CHEL, CIT 205, CST 162, CST 261, EGG 201, EGG 202, EGG 207, EGG 208, EGG 251, MAT 265, MAT 267, MET 106. Other courses may be chosen if a specific major and/or institute considers the course transferable.

ENGLISH

ASSOCIATE IN ARTS DEGREE



The English degree program is designed for students interested in focusing on literature and writing in an interrelated academic environment. The program features a broad range of courses in English language, literature, and composition, including introduction to literature, survey courses, genre courses, diversity-based and interdisciplinary courses, and writing-intensive courses. The program will enable interested students to begin their major in English at Union County College and to transfer to a four-year institution to continue their academic advancement on the baccalaureate level.

- Appreciate, discuss, and write about major writers, movements, cultures, and works covered in a given course in ways that demonstrate analytical competency and compositional skill;
- Appreciate the interrelatedness of literature, literary theory, language, and composition.

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 advisor for details.

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

- Write clearly, grammatically, and fluently with focus and continuity in standard American English;
- Write and revise papers which demonstrate an understanding of the writing process;
- Demonstrate clarity, analytical skill, and organization to present and support ideas in formal papers and in-class writings;
- Articulate their evolving point of view about literature, authors, diverse cultures, and periods, and about compositional artistry, creativity, and style;
- Write research papers that explore critical inquiry on works and authors studied in a given course; employ, when practicable, technological tools; and responsibly use and document sources;

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
HIS 101	Introduction to Western Civilization I	3
MAT 127	Elementary Statistics	4
PSY 101	General Psychology	3
Modern Language General Education Requirements		3
		16
SPRING SEMESTER		
ENG 102	English Composition II	3
HIS 102	Introduction to Western Civilization II	3
Modern Language General Education Requirement		3
Lab Science General Education Requirement		4
Social Science General Education Requirement		3
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
200-level ENG		3
200-level History	General Education Requirement	3
COM 100	Communications Technologies OR	
MAT/Lab Science/Technology	Gen Ed Requirement	4
ENG 122	Introductory Technical and Business Writing OR	
COM 102	Reporting and News Writing	3
ENG 128	the Dynamics of Communication OR	
ENG 129	Public Speaking	3
		16
SPRING SEMESTER		
200-level ENG		3
200-level ENG		3
200-level ENG	Diversity Gen Ed Requirement	3
ENG 215	Creative Writing OR	
ENG 213	Advanced Writing	3
		12
Total Program Credits		60

FIRE SCIENCE TECHNOLOGY

ASSOCIATE IN APPLIED SCIENCE DEGREE



Fire Science Technology is a two-year Associate degree program.

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

- Analyze firefighting strategies, techniques, and procedures including blueprints and codes involved with incident command;
- Analyze the ethical implications of fire department state policies and individual practices;
- Describe the organization and management of fire departments;
- Effectively communicate knowledge of fire prevention including fire detection and its causes, fire prevention systems, and building codes in written, verbal, and electronic formats;
- Apply problem-solving skills including the use of technology to specific fire ground situations.

AFTER UNION COUNTY COLLEGE

Graduates with this degree will have the basic knowledge necessary to begin a challenging career in fire protection.



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.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
CST 100	Introduction to Computer Applications	3
ENG 101	English Composition I	3
FST 103	Fire Protection	3
MAT 113	Math Applications	3
PSY 101	General Psychology OR SOC 101 Principles of Sociology	3
		15

SPRING SEMESTER

Chemistry OR Physics Lab Science	Gen Ed Requirement	4
ENG 122	Introductory Tech and Business Writing	3
FST 102	Building Construction	3
FST 105	Fire Prevention	3
FST 106	Fire Fighting Tactics	3
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
FST 107	Hazardous Materials	3
FST 109	Fire Protections Systems	3
FST 113	Fire Department Organization and Management	3
FST 218	Fireground Strategies and Concepts	3
Humanities	Gen Ed Requirement	3
		15

SPRING SEMESTER

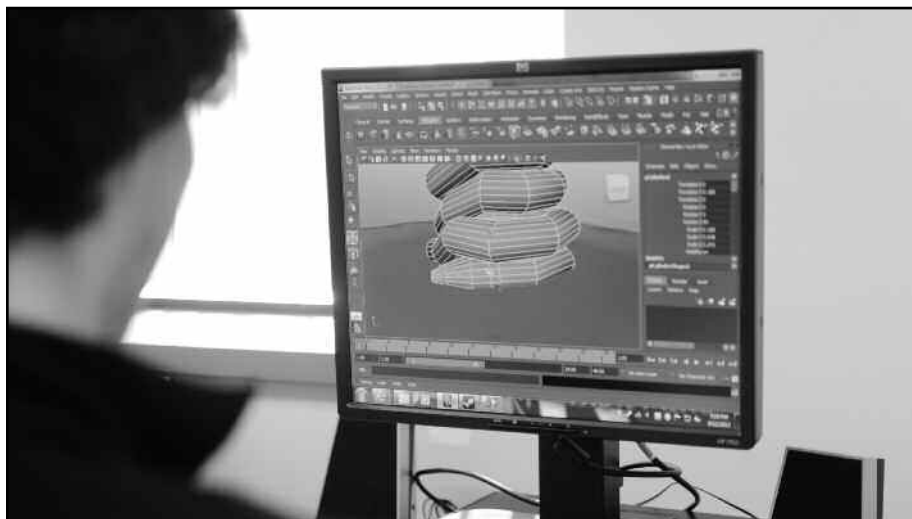
FST 108	Fire Hydraulics	3
FST 111	Fire Causes and Detection	3
FST 119	Incident Command	3
GOV 204	Public Administration	3
Fire Science	Elective	3
		15

Total Program Credits: 61

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 EMT 106, FST 112, and FST 115.

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

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
BUS 101	Introduction to Contemporary Business	3
CST 115	Introduction to Computer Programming	3
ENG 101	English Composition I	3
GDP 101	Fundamentals of Game Design	3
MAT 143	Elementary Mathematical Analysis I*	
OR		
MAT 155	Elementary Mathematical Analysis	4-5
		16-17

SPRING SEMESTER

COM 105	Storytelling for Digital Media	3
CST 161	Computer Programming Fundamentals	4
GDP 110	Game Design and Development I	3
GDP 115	The Business of Gaming	3
FIA 104	Basic Design	3
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 102	English Composition II	3
GDP 201	Principles of Animation	3
GDP 210	Game Design and Development II	3
FIA 202	Graphic Design	3
PHY 125	Elements of Physics	3
PHYL 125	Elements of Physics Laboratory	1
		16

SPRING SEMESTER

ENG 216	Contemporary Literature	3
GDP 215	3D Game Programming	3
GDP 280	Game Development Portfolio	3
COM 109	Introduction to Film Study OR	
FIA 108	Appreciation of Art	3
		12

Total Program Credits: 60-61

* A higher level math course may be substituted. Division approval is required.



GRAPHIC DESIGN

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE



This program is designed for students preparing to transfer to a four-year college or university to pursue a Bachelor of Arts or Bachelor of Fine Arts in Graphic Design. Students will be provided with a theoretical and practical understanding of the commercial art area of graphic design. Utilizing skills and techniques learned through a combination of lecture/studio experience, students are introduced to the various aspects of the graphic communication process.

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

- Demonstrate, both orally and in writing, an understanding of the theoretical skills involved in creating visuals, combining images and typography;
- Create visuals which utilize both images and typography;
- Utilize the tools of digital design including computer and design software to prepare graphic design examples;
- Demonstrate, both orally and in writing, an understanding of the critical and aesthetic essentials seen throughout the history of graphic design;
- Create a portfolio 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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
FIA 104	Introduction to 2D Design	3
HIS 101	Introduction to Western Civilization I	3
MAT 125	Survey of Special Topics in Mathematics	
	OR	
MAT 127	Elementary Statistics	4
Modern Language General Education Requirement		3
		16
SPRING SEMESTER		
ENG 102	English Composition II	3
FIA 109	Introduction to Drawing	3
HIS 102	Introduction to Western Civilization II	3
Lab Science General Education Requirement		4
Modern Language General Education Requirement		3
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
FIA 111	Art History Survey I	
	OR	
FIA 112	Art History Survey II	3
FIA 115	Fundamentals of Figure Drawing	3
FIA 130	Introduction to Graphic Design	3
MAT/SCI/TECH General Education Requirement		4
PSY 101	General Psychology	3
		16
SPRING SEMESTER		
ENG 128	The Dynamics of Communication	
	OR	
ENG 129	Public Speaking	3
FIA 230	Advanced Graphic Design	3
HUM General Education Requirement		3
SOC SCI General Education Requirement		3
		12
Total Program Credits:		60

HEALTH SCIENCE

ASSOCIATE IN SCIENCE DEGREE



The Health Science program is designed for students to incorporate knowledge from general education and the health sciences and apply it in an entry-level position, or transfer the academic credits to a four-year institution. Information that is important to the health care professional will be presented throughout the curriculum, including critical aspects of health, wellness, and disease. Students have the opportunity to apply course work in nursing, allied health and/or relevant social sciences toward the degree.

Completion of this program will serve as a foundation for those who wish to further their health care careers.

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

- Communicate effectively, both verbally and in writing, especially on issues related to health and society;
- Apply clinical reasoning in health care scenarios;
- Access information from appropriate sources relevant to health care issues;
- Recognize health care needs and concerns within a diverse society;
- Demonstrate knowledge, skills, and attitudes related to management of health, wellness, and disease conditions;
- Integrate legal and ethical principles into situations within various health care settings.

AFTER UNION COUNTY COLLEGE

Graduates of this program are prepared to pursue a number of entry-level careers within the broad field of health science with positions such as case managers, patient advocates, and community health liaisons.

Students may transfer to four-year institutions that offer baccalaureate degrees in Health Science, such as the College of St. Elizabeth.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
BIO 105	Anatomy and Physiology I	4
ALH 161	Medical Terminology	3
		16

SPRING SEMESTER		
ENG 102	English Composition II	3
PSY 204 OR PSY 205	Human Lifespan/ Child Psychology	3
BIO 106	Anatomy and Physiology II	4
Humanities Gen Ed	Requirement	3
ADM 110	Computer Skills for Health Care	2
		15

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ALH 201*	Pathophysiology and Health Care	3
Mathematics Gen Ed	Requirement	4
Elective Gen Ed	Requirement	3
General Elective		3
		13

SPRING SEMESTER		
ENG 128	The Dynamics of Communication	3
Elective Gen Ed	Requirement	3
Applied Health Courses**		10
		16

Total Program Credits: 60

* Students completing foundation courses in nursing and/or allied health may apply credit or challenge the course.

** The following courses could be used for the 10 credits in nursing or allied health:

- BIO 107 – Decisions for Wellness
- EMT
- Gerontology
- Interpreting
- Paramedic
- PTA
- Practical Nursing
- Psychology
- Psychosocial Rehabilitation
- Radiology, Sonography
- RN courses – Trinitas or Muhlenberg

HISTORY

ASSOCIATE IN ARTS DEGREE



The History program is designed for students preparing to transfer to a four-year college or university to pursue a Bachelor of Arts degree in History. The program provides a strong foundation in history, the humanities, and the social sciences. It prepares students for a career in history, public history, legal studies, government, the publishing industry, research, and education. Courses in this program focus on reading, writing, research, critical thinking, and presentation skills.

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

- Analyze evidence derived from primary and secondary sources to support a thesis;
- Evaluate historical evidence for bias and for relevance to major historical issues and controversies;
- Identify, in written or oral communication, change over time, cross-cultural connections, and links between the past and the present;
- Demonstrate, in written or oral communication, knowledge of key historical facts, values, persons, and ideas;
- Demonstrate, in written or oral communication, knowledge of the ethical consequences of historical events and decisions;
- Demonstrate, in written or oral communication, knowledge of the

various approaches to history including political, social, cultural, intellectual, and economic interpretations;

- Demonstrate ability to conduct historical research.

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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
HIS 101	Introduction to Western Civilization I	3
ENG 129	Public Speaking	3
CST 100	Introduction to Computer Applications	3
		12

SPRING SEMESTER		
ENG 102	English Composition II	3
HIS 102	Introduction to Western Civilization II	3
ECO 201	Principles of Economics I	3
GOV 201	American Government and Politics	3
Lab Science Gen Ed Elective		4
		16

SECOND YEAR

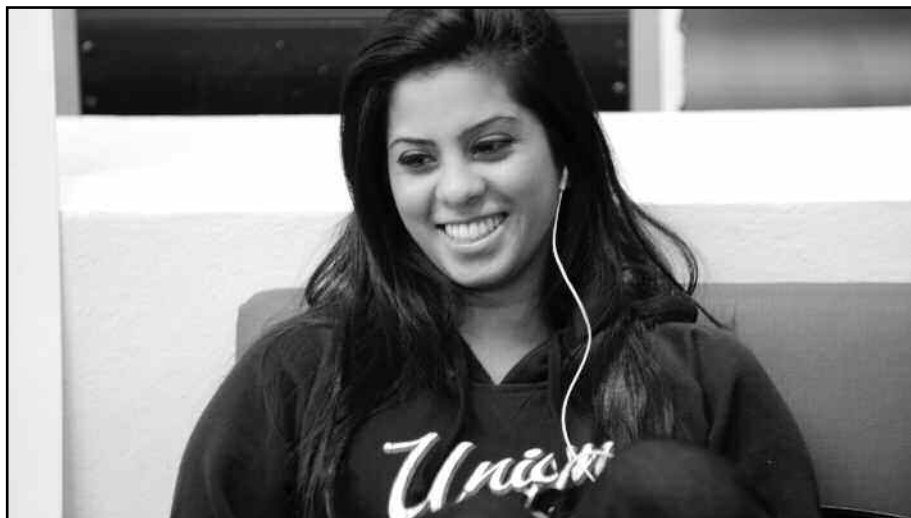
COURSE#	COURSE	Cr.
FALL SEMESTER		
Gen Ed Lab Science Elective		4
HIS 201	United States History to 1865	3
PHI 212	Logic and Critical Thinking	3
Diversity Gen Ed requirement		3
History Elective		3
		16

SPRING SEMESTER		
HIS 202	United States History since 1865	3
GOV 202	American National Government	3
History Elective		3
Humanities Elective		3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
		16

Total Program Credits:	60
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HOTEL, RESTAURANT, AND TOURISM MANAGEMENT

ASSOCIATE IN APPLIED SCIENCE DEGREE



The Hotel, Restaurant, and Tourism 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;
- Apply knowledge of basic computer concepts to their use in the hospitality industry;
- Demonstrate the ability to perform necessary elements of management and code of ethics within the hotel, restaurant, and tourism industries;
- Appropriately use current equipment to perform factual research associated with hospitality management including planning its arrangements, 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 Division Dean's office is advised.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
HSM 100	Introduction to the Hospitality Industry	3
ADM 140	Customer Service	3
CST 100	Introduction to Computer Applications	3
BUS 105	Organization and Management	3
ENG 101	English Composition I	3
		15

SPRING SEMESTER

ENG 102	English Composition II	
OR		
ENG 122	Introduction to Technical and Business Writing	3
BUS 107	Human Resources Management	
OR		
BUS 200	Small Business Management	3
ACC 103	Accounting I	4
HSM 120	Managing Front Office Operations	3
HSM 110	Food and Beverage Management	3
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 129	Public Speaking	3
Modern Language Gen Ed Requirement		3
MAT 113	Math Applications	3
HSM 240	Hospitality Sales and Marketing	3
HSM 220	Managing Housekeeping Operations	3
		15

SPRING SEMESTER

Modern Language Gen Ed Requirement		3
BUS 110	Business and Technology	3
PSY 101	General Psychology	3
HSM 205	Planning and Control of Food and Beverage Operations	3
HSM 290	Co-op Education Experience in Hospitality Management	3
		15

Total Program Credits: 61



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 three modes of spoken language interpretation, consecutive, simultaneous, and sight translation;
- Employ reference and research tools that enhance interpreting skills;
- Analyze the roles that interpreters fill when performing in professional settings;
- Create a plan of how to build a home-based business in interpreting;
- Analyze networking, marketing, legal, and financial issues in the interpreting and translation industry.

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

COURSE#	COURSE	Cr.
INT 101	Interpreting I	3
INT 102	Interpreting II	3
INT 105	Role of Interpreter	3
TRN 101	Introduction to Written Translation	3
ENG 101	English Composition I OR	3
ENG 111	and ENG 112 English Composition for Speakers of Other Languages I and II	6
ENG 128	The Dynamics of Communication	3
ENG 129	Public Speaking	3
	Mathematics OR Science Gen Ed Requirement	3-4
	Social Science Gen Ed Requirement	3
	Humanities Gen Ed Requirement (ENG 112 serves as a Humanities elective)	3
Total Program Credits:		30-31

JOURNALISM AND PUBLIC RELATIONS

**Option offered through Communications
ASSOCIATE IN ARTS DEGREE**



This program is designed for transfer to a bachelor's degree-granting institution. Coursework includes the practice of news writing and reporting for feature articles for various publications and the theory and practice of public relations including strategic planning, event planning, and promotions. Skills obtained include the ability to write and design for various publications. Students in this program can serve as the writers, editors, designers, and photographers for the College's newspaper, *The Scroll*, and the College's literary magazine, *The Sheaf*.

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

- Discuss and analyze current social and political issues and events, both orally and in writing;
- Demonstrate diverse proficiency with current productivity software and apply them to the field of journalism and public relations;
- Demonstrate visually, orally, and in writing, an understanding of the various components in print and digital production;
- Demonstrate effective creative practices in the areas of planning, writing, design, and photography;
- Demonstrate the knowledge of how to identify, find, evaluate, and disseminate topics that are related to the fields of journalism and public relations by using a variety of information literacy techniques.

Other Communications Degrees Include:

- Communications
- Media

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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
COM 100	Communications Technologies	4
COM101	Mass Communications	3
ENG 101	English Composition I	3
HIS	General Education Requirement	3
		13

SPRING SEMESTER

COM 102	Reporting and News Writing	3
ENG 102	English Composition II	3
ENG 128	The Dynamics of Communication	OR
ENG 129	Public Speaking	3
Humanities	General Education Requirement	3
Lab Science	General Education Requirement	4
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
COM 107	Publication Editing and Design	3
COM 108	Principles and Practices of Public Relations	3
History	General Education Requirement	3
Humanities	General Education Requirement	3
MAT 125	Survey of Special Topics in Mathematics	OR
MAT 127	Elementary Statistics	4
		16

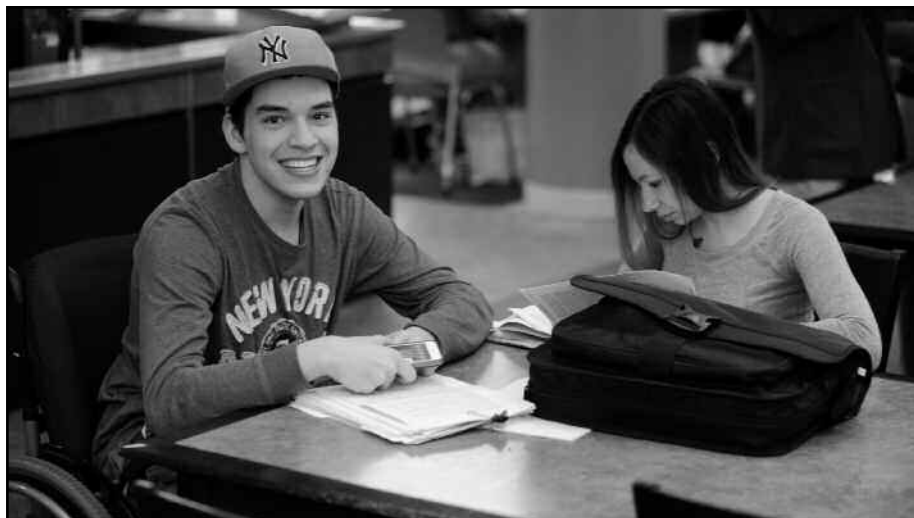
SPRING SEMESTER

COM 207	Advanced Publication Editing and Design	3
Diversity	General Education Requirement	3
200 Level Humanities	General Education Requirement	3
PSY 101	General Psychology	3
SOC SCI	General Education Requirement	3
		15
Total Program Credits		60



LIBERAL ARTS

ASSOCIATE IN ARTS DEGREE



The Liberal Arts program is a flexible, transfer-oriented curriculum for students who want to complete a broad-based liberal arts and sciences foundation before majoring in particular disciplines. 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 an ideal preparation for a well-rounded general education, allowing students to experience various academic disciplines before settling on a major after transfer.

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

- Communicate clearly orally and in writing;
- Implement critical-thinking, problem-solving, and technological skills for the purpose of learning and research;
- Demonstrate college-level competency in historical knowledge;
- Recognize and explain approaches from the humanities and social sciences to analyze the impact of human and social behaviors;
- Recognize and explain ethical implications of everyday issues;
- Discuss and implement mathematical methods to solve problems.

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

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
	Modern Language Gen Ed Requirement	3
PSY 101	General Psychology	3
	Lab Science Gen Ed Requirement	4
HIS 101	Introduction to Western Civilization I	3
		16

SPRING SEMESTER		
ENG 102	English Composition II	3
	Modern Language Gen Ed Requirement	3
HIS 102	Introduction to Western Civilization II	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
	Social Sciences/Gen Ed Requirement	3
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
	Math, Science, Technology Gen Ed Requirement	4
	Liberal Arts Elective	3
ENG 128	The Dynamics of Communication OR ENG 129 Public Speaking	3
	Humanities Gen Ed Requirement	3
	Liberal Arts 200-level elective	3
		16

SPRING SEMESTER		
	Liberal Arts Elective	3
	Liberal Arts 200-level elective	3
	Liberal Arts 200-level elective	3
	Diversity Gen Ed Requirement	3
		12

Total Program Credits: 60

Electives in Liberal Arts – Choose a three-credit course from the following course alphas: ARB, AST, BIO, CHE, CHN, COM, ECO, ENG, FIA, FRE, GEO, GER, GEY, GOV, HIS, ITA, MAT, MTR, PHI, PHY, PSY, SOC, SPA.

LIBERAL STUDIES

ASSOCIATE IN SCIENCE DEGREE



The Liberal Studies program is designed to be a flexible, transfer-oriented curriculum for students who want to complete a broad-based general education foundation before majoring in a specific academic discipline. This program is ideal for those students who would like to complete an Associate in Science program, and transfer to a baccalaureate degree program. This degree is awarded upon satisfactory completion of no fewer than 60 credit hours selected from the various disciplines of the College.

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

- Communicate clearly orally and in writing;
- Implement critical-thinking, problem-solving, and technological skills for the purpose of learning and research;
- Demonstrate college-level competency in historical knowledge;
- Recognize and explain approaches from the humanities and social sciences to analyze the impact of human and social behaviors;
- Recognize and explain ethical implications of everyday issues;
- Discuss and implement mathematical methods to solve problems.

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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
	Lab Science Gen Ed Requirement	4
HIS 101	Introduction to Western Civilization I	3
	Elective	3
		16

SPRING SEMESTER		
ENG 102	English Composition II	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
	Social Science Gen Ed Requirement	3
	Electives	6
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
	Math, Science, Technology Gen Ed Requirement	4
	Elective Gen Ed Requirement	3
	Electives	9
		16
SPRING SEMESTER		
	Elective Gen Ed Requirement	3
	Electives	9
		12
Total Program Credits:		60

Is a 4-year degree in your future?

An Associate in Arts (A.A.) or Associate in 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.



LIBERAL STUDIES

CERTIFICATE



The Liberal Studies Certificate provides a foundation in general education and communication courses. The Liberal Studies Certificate program allows students to develop an individualized course of study appropriate to their specific educational goals. The program meets and exceeds the State-mandated general education distribution requirements for Certificate programs. The Certificate is awarded upon satisfactory completion of no fewer than 30 credit hours of work selected from the various disciplines of the College.

Upon successful completion of the certificate requirements, the graduate will be able to:

- Communicate clearly orally and in writing;
- Implement critical-thinking and problem-solving for the purpose of learning and research;
- Apply knowledge from the humanities and social sciences to cultural or political or social issues.

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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
	Social Science Gen Ed Requirement	3
	Humanities Gen Ed Requirement	3
	Electives	6
		15
SPRING SEMESTER		
ENG 102	English Composition II	3
	Social Science or Humanities Gen Ed Requirement	3
	Science, Math, Technology Gen Ed Requirement	3-4
	Electives	6
		15 or 16
Total Credits:		30-31

Do you need a quicker way to your career?

Consider a Certificate program. From Criminal Justice to Photovoltaic studies, Certificate programs require fewer credit hours, and some can be completed in only two semesters!

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 inter-connectedness of the disciplines pragmatically.

This program assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the College Level Mathematics exam. Contact the STEM Division for further information.

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;
- Apply mathematical theorems to solve classical problems and real-world applications;

- Formulate and evaluate possible solutions to problems, and select and defend the chosen solutions with mathematical proofs or by the scientific method as appropriate;
- Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations;
- Construct graphs and charts, interpret them, and draw appropriate conclusions;
- Use technology in analyzing and solving mathematical problems;
- Address an information need by locating, evaluating, and effectively using information.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year college or university as a junior mathematics major leading to careers in statistics, actuarial sciences, mathematical modeling, cryptography, mathematics education, and research in mathematics. Consult with the STEM Division for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
MAT 171	Unified Calculus I	4
PHY 101	General Physics I*	3
	WITH	
PHYL 111	Mechanics Laboratory	1
CST 161	Computer Programming Fundamentals	4
		15
SPRING SEMESTER		
ENG 102	English Composition II	3
MAT 172	Unified Calculus II	4
PHY 102	General Physics II*	3
	WITH	
PHYL 102	General Physics II Lab	1
CST 162	Computer Algorithms	4
HIS 101	Introduction to Western Civilization I	3
		18

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 200-Level Literature Course		3
MAT 271	Unified Calculus III	4
MAT 265	Linear Algebra	3
Social Science Gen Ed Requirement		3
Elective	Humanities	3
		16
SPRING SEMESTER		
MAT 272	Differential Equations	4
MAT 267	Discrete Mathematics	3
Social Science Gen Ed Requirement		3
MAT 266	Survey of Modern Mathematics	3
Elective	Free Elective	3
		16
Total Program Credits:		65

* Students whose transfer institution requires a calculus based physics course should consult with the STEM Dean's office to schedule PHY 111 and PHY 201 instead.



MATHEMATICS MAJOR – EDUCATION OPTION

ASSOCIATE IN SCIENCE DEGREE



The nation's growing need for scientists, engineers, and other technically skilled workers, has led to a shortfall in our national scientific and technical capabilities because U.S. colleges are not graduating enough scientific talent. Weaknesses in the K-12 education system contribute to challenges students face. In NJ, the shortage of qualified mathematics and science teachers is severe.

This option will provide a solid subject matter foundation and appreciation for mathematics for students planning to teach in order to assure quality in mathematics education. Union County College graduates will have the opportunity to matriculate at four-year colleges, pursuing a baccalaureate degree in Mathematics Education.

This program assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the College Level Mathematics exam. Contact the STEM Division for further information.

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;
- Apply mathematical theorems to solve classical problems and real-world applications;
- Formulate and evaluate possible solutions to problems, and select and defend the

chosen solutions with mathematical proofs or by the scientific method as appropriate;

- Translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations;
- Construct graphs and charts, interpret them, and draw appropriate conclusions;
- Use technology in analyzing and solving mathematical problems;
- Address an information need by locating, evaluating, and effectively using information.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a four-year college or university as a junior with a solid subject matter foundation to pursue a baccalaureate degree in Mathematics Education and Mathematics Teaching Certification. Consult with the STEM Division for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
MAT 171	Unified Calculus I	4
PHY 101	General Physics I	3
WITH		
PHYL 111	Mechanics Laboratory	1
CST 161	Computer Programming Fundamentals	4
		15
SPRING SEMESTER		
ENG 102	English Composition II	3
MAT 172	Unified Calculus II	4
PHY 102	General Physics II	3
WITH		
PHYL 102	General Physics II Lab	1
CST 162	Computer Algorithms	4
HIS 101	Introduction to Western Civilization I	3
		18

SECOND YEAR

FALL SEMESTER		
ENG 200	Level Literature Course	3
MAT 271	Unified Calculus III	4
MAT 265	Linear Algebra	3
PSY 101	General Psychology	3
*HIS 102	Introduction to Western Civilization II	3
		16
SPRING SEMESTER		
MAT 272	Differential Equations	4
MAT 267	Discrete Mathematics	3
PSY 206	Adolescent Psychology	3
MAT 266	Survey of Modern Mathematics	3
SOC 101	Principles of Sociology	3
		16
Total Program Credits:		65

*In order to be substituted with an alternate Humanities course to fulfill specific transfer needs, the student must secure written permission from the appropriate Division.

This plan assumes the completion of all required developmental courses, pre-requisites, co-requisites, and any other requirements as defined in the College Catalog.

MEDIA

Option offered through Communications ASSOCIATE IN ARTS DEGREE



This program is designed for transfer to a program in communications and media at a bachelor's degree-granting institution. The Communications Option in Media includes three possible areas of focus: Audio, Film and Television, and Multimedia. This option is ideal for students who want to immerse themselves in the study of traditional and emerging media and gain skills necessary to pursue further study in the areas of television, film, and audio production.

Other Communications Degrees Include:

- Communications
- Journalism and Public Relations

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

- Discuss and analyze current social and political issues and events, both orally and in writing;
- Demonstrate proficiency with productivity software such as word processing and presentation management applications and apply them to the field of communications;
- Apply classroom learning to the creation of student video projects and audio projects;
- Work effectively as a member of a team in their specific field;
- Operate the tools and technology encountered in a professional television studio, video production facility, or radio station;
- Demonstrate in writing the skills necessary to research the history of media.

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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
COM 100	Communications Technologies	4
COM101	Mass Communications	3
ENG 101	English Composition I	3
HIS	General Education Requirement	3
		13

SPRING SEMESTER		
COM elective*		3
COM 109	Introduction to Film Study	3
ENG 102	English Composition II	3
ENG 128	The Dynamics of Communication	
OR		
ENG 129	Public Speaking	3
HIS	General Education Requirement	3
		15

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
COM elective*		3
COM 209	The Evolution of Film	3
200 level English HUM General	Education Requirement	3
Gen Ed Lab Science		4
PSY 101	General Psychology	3
		16

SPRING SEMESTER		
COM 216	Digital Video Editing and Multimedia Imaging	3
COM 200	Level elective*	3
FIA 105	Music Appreciation	3
MAT 125	Survey of Special Topics in Mathematics	4
SOC SCI	General Education Requirement	3
		16

Total Program Credits 60

* COM electives: Students may choose ONE area of focus by selecting AND FOLLOWING one of the sequences below (All courses are three credits).

AUDIO PRODUCTION AND RADIO BROADCASTING FOCUS

COM 103	Introduction to Radio Broadcasting
COM 113	Audio Production I
COM 213	Audio Production II

FILM AND VIDEO FOCUS

COM 105	Storytelling for Digital Media
COM 106	Introduction to Television: Production and Theory
COM 206	Television Field Production

MULTI-MEDIA FOCUS

COM 105	Storytelling for Digital Media
COM 112	Multimedia Development I
COM 212	Multimedia Development II

MUSIC AND THEATER ARTS

Option offered through Liberal Arts
ASSOCIATE IN ARTS DEGREE



This program is designed for students preparing to transfer to a four-year college or university to pursue a Bachelor of Arts or Bachelor of Fine Arts in Acting, Musical Theater, or Music. Students will explore the various styles and periods of music and theater throughout history. Students will develop skills in movement, voice, and basic musicianship. Students will demonstrate those skills in various performances. Students will also watch live performances and analyze them through written and oral discussion.

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

- Demonstrate, orally and in writing, a basic understanding and appreciation of the history of music, the various musical styles, and the components of musical form and musical performance;
- Demonstrate, orally and in writing, a basic understanding and appreciation of the history of drama and theater acting and the various elements of drama and theatrical performance;
- Perform effectively as an actor in a specified scene;
- Demonstrate basic musicianship skills;
- Use technology for learning and research pertinent to musical and theatrical appreciation, history, or performance.

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 advisor 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

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 101	English Composition I	3
ENG 129	Public Speaking	3
FIA 105	Music Appreciation	3
FIA 132	Introduction to Drama	3
MAT 125	Survey of Special Topics in Mathematics	
OR		
MAT 127	Elementary Statistics	4
		16
SPRING SEMESTER		
ENG 102	English Composition II	3
FIA 232	Fundamentals of Drama	3
HIS 101	Introduction to Western Civilization I	3
Modern Language General Education Requirement		3
Lab Science General Education Requirement		4
		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
FIA 103	Fundamentals of Music	
OR		
FIA 117	Survey of Music in the Twentieth Century	3
FIA 127	Introduction to Acting	3
Liberal Arts Elective		3
MAT/SCI/TECH General Education Requirement		4
PSY 101	General Psychology	3
		16
SPRING SEMESTER		
FIA 227	Advanced Acting	3
HIS 102	Introduction to Western Civilization II	3
Humanities General Education Requirement		3
SOC SCI General Education Requirement		3
		12
Total Program Credits		60



Healthcare PROGRAMS OF STUDY

- Dental Assisting
- Dental Hygiene
- Emergency Medical Studies
- Nuclear Medicine
- Nursing, JFK Medical Center Muhlenberg, Harold B. and 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
- 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 Union County College and the Trinitas School of Nursing, Elizabeth, New Jersey, and 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. and Dorothy A. Snyder Schools** are approved by the New Jersey State Board of Nursing to conduct programs in professional nursing and are fully accredited by ACEN - Accreditation Commission for Education in Nursing.
- **Trinitas School of Nursing** offers generic RN and LPN to RN tracks. The LPN to RN Completion track 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. and Dorothy A. Snyder Schools** offers a day or evening Generic track in the nursing courses. The JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools also offers 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. In addition, the JFK Medical Center Muhlenberg Harold B. and Dorothy A. 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools also offers a Pathways to BSN Track in cooperation with Kean University.
www.jfkmuhlenbergschools.org

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.

Is a 4-year degree in your future?

An Associate in Arts (A.A.) or Associate in 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.

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.).

SCHOOL OF NURSING

JFK MEDICAL CENTER MUHLENBERG HAROLD B. AND 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools, Park Avenue and Randolph Road, Plainfield, N.J., 07061, or visit the school's website www.jfkmuhlenbergschools.org

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

GENERIC TRACK

COURSE#	COURSE	CR.
FALL SEMESTER		
BIO 105	Anatomy and Physiology I*	4
CHE 114	Principles of Organic Chemistry and Biochemistry**	4
ENG 101	English Composition I	3
NURM 100	Mathematics for Pharmacology	1
NURM 119	Introduction to Nursing Concepts	3
		15
SPRING SEMESTER		
BIO 106	Anatomy and Physiology II*	4
PSY 101	General Psychology	3
NURM 121	Nursing I	8
		15
FALL SEMESTER		
BIO 108	Microbiology*	4
PSY 204	Lifespan Development	3
NURM 122	Nursing II	8
		15
SPRING SEMESTER		
SOC 101	Principles of Sociology	3
ENG 102	English Composition II	3
NURM 221	Nursing III	9
		15
FALL SEMESTER		
NURM 222	Nursing IV	9
Humanities Gen Ed Requirement (2)		6
		15
Nursing Credits:		38
General Education Credits:		37
Total:		75

ACCELERATED TRACK

COURSES AT UNION COUNTY COLLEGE (IF NECESSARY)

COURSE#	COURSE	CR.
FALL SEMESTER		
BIO 105	Anatomy and Physiology I*	4
BIO 106	Anatomy and Physiology II*	4
BIO 108	Microbiology*	4
CHE 114	Principles of Organic Chemistry and Biochemistry**	4
ENG 101	English Composition I	3
ENG 102	English Composition II	3
PSY 101	General Psychology	3
PSY 204	Lifespan Development	3
SOC 101	Principles of Sociology	3
NURM 100	Mathematics for Pharmacology	1
Humanities Gen Ed Requirement (2)		6
		38
SPRING SEMESTER		
NURM 141	Accelerated Nursing	13
SUMMER SEMESTER		
NURM 241	Accelerated Nursing Summer+	11
FALL SEMESTER		
NURM 242	Accelerated Nursing	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.

SCHOOL OF NURSING

JFK MEDICAL CENTER MUHLENBERG HAROLD B. AND DOROTHY A. SNYDER SCHOOLS – ASSOCIATE IN SCIENCE DEGREE, cont'd



RECOMMENDED SEQUENCE

LPN TO RN TRACK

COURSES AT UNION COUNTY COLLEGE (IF NECESSARY)

COURSE#	COURSE	CR.
PREREQUISITES		
BIO 105	Anatomy and Physiology I*	4
BIO 106	Anatomy and Physiology II*	4
BIO 108	Microbiology*	4
CHE 114	Principles of Organic Chemistry and Biochemistry**	4
ENG 101	English Composition I	3
ENG 102	English Composition II	3
PSY 101	General Psychology	3
PSY 205	Child Psychology	3
SOC 101	Principles of Sociology	3
		31
SUMMER SEMESTER		
NURM 120	LPN Transition Course **	4
		7
FALL SEMESTER		
NURM 221	Nursing III	9
Humanities Gen Ed Requirement		3
		12
SPRING SEMESTER		
NURM 222	Nursing IV	9
Humanities Gen Ed Requirement		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.trinitasschoolofnursing.org.

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

- Demonstrate professional nursing behaviors in the provision of patient-centered care;
- Demonstrate a spirit of inquiry while applying the nursing process to provide safe, competent and contemporary care to individuals, families and groups;
- Practice within the legal and ethical boundaries of the nursing profession;
- Identify threats to safety and design strategies to reduce the risk of harm to individuals, families and groups across the lifespan;
- Collaborate with members of the inter-professional team to provide and improve patient care;
- Engage in the continuous process of life-long learning and development within a dynamic society.

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 Accreditation Commission for Education in Nursing 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 track. 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 track 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 TRACK FOR LICENSED PRACTICAL NURSES

The RN completion evening track 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 Track:

- 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 Track:

- Graduation from an accredited 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.

ADM 110 - Keyboarding and Computer Skills in Nursing, is a course offered to assist students to develop these competencies and is a prerequisite for NURE 130 and NURE 121/122.

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 the Division Dean at 908-709-7510.

TRINITAS SCHOOL OF NURSING

ASSOCIATE IN SCIENCE DEGREE, cont'd

RECOMMENDED SEQUENCE

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.

COURSE#	COURSE	Cr.
FALL SEMESTER		
BIO 105	Anatomy and Physiology I	4
CHE 114	Principles of Organic Chemistry and Biochemistry	4
ENG 101	English Composition I	3
NURE 130	Nursing Trends and Concepts	4
TOTAL CREDITS		15
SPRING SEMESTER:		
BIO 106	Anatomy and Physiology II	4
PSY 101	General Psychology	3
NURE 131	Nursing I	8
TOTAL CREDITS		15
FALL SEMESTER:		
BIO 108	Microbiology	4
PSY 204	Human Life Span Development	3
NURE 132	Nursing II	8
TOTAL CREDITS		15
SPRING SEMESTER:		
ENG 102	English Composition II	3
SOC 101	Principles of Sociology	3
NURE 231	Nursing III	8
TOTAL CREDITS		14
FALL SEMESTER:		
NURE 232	Nursing IV	10
Humanities Gen Ed Requirement		3
Humanities Gen Ed Requirement		3
		16
CREDIT ALLOCATION: Nursing		38
General Education		37
TOTAL		75

A total of 75 credits for a professional nursing program is within the standard of professional nursing programs. In NJ the range of total credits for Associate Degree and Diploma programs is 67-75 credits.

RECOMMENDED SEQUENCE

LPN TO RN CURRICULUM

RN COMPLETION PROGRAM FOR LPNS:

NURE courses are offered in the evening in this division.

COURSE#	COURSE	Cr.
PREREQUISITES		
BIO 105	Anatomy and Physiology I	4
BIO 106	Anatomy and Physiology II	4
BIO 108	Microbiology	4
CHE 114	Principles of Organic Chemistry and Biochemistry	4
ENG 101	English Composition I	3
ENG 102	English Composition II	3
PSY 101	General Psychology	3
PSY 204	Human Life Span Development	3
SOC 101	Principles of Sociology	3
Humanities Gen Ed Requirement		3
Humanities Gen Ed Requirement		3
Licensed Practical Nurse Curriculum		12
FALL SEMESTER		
NURE 211	Bridge to Professional Nursing Core Concepts	3
NURE 212	Health and Physical Assessment	4
SPRING SEMESTER		
NURE 250	Nursing Care of the Client with a Medical/Surgical Health Deviation	6
SUMMER SESSION		
NURE 260	Nursing Care of Children and their Families	3
NURE 270	Nursing Care of Women and the Childbearing Family	3
FALL SEMESTER		
NURE 280	Nursing Care of the Client with Mental Illness	3
NURE 290	Nursing Care of the Client with a Complex Multi-System Medical-Surgical Health Deviation	3
NURE 291	Leadership and Management Seminar	1
CREDIT ALLOCATION: Nursing		38
General Education		37
TOTAL		75

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.

OFFICE PROFESSIONAL

CERTIFICATE OF ACHIEVEMENT



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 .

AFTER UNION COUNTY COLLEGE

Graduates can enter the workforce or the Business Management or Administrative Support degree programs.

RECOMMENDED SEQUENCE

COURSE#	COURSE	CR.
ADM 213	Word I	3
ADM 215	Excel I	3
ADM 217	PowerPoint	3
CST 120	The Internet	3
Elective	Technical **	3
Total Program Credits:		15

**Choose from the following technical electives:

- ADM 216 Access
- CST 130 Visual Basic Programming
- ADM 135 Proofreading and Editing Skills
- ADM 214 Word II

Program Prerequisites:

- ENG 101 English Composition I
- ADM 101 Keyboarding for the Computer

**Do you need
a quicker
way to your
career?**

Consider a Certificate program. From Criminal Justice to Photovoltaic studies, Certificate programs require fewer credit hours, and some can be completed in only two semesters!



PARALEGAL STUDIES

ASSOCIATE IN 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 Science Degree Option is approved by the American Bar Association and 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:

- Identify, analyze and evaluate legal issues;
- Perform legal research using library resources and computer technology;
- Perform factual research incorporating computer technology;
- Write clearly and accurately according to the standards of the legal profession;
- Prepare forms, pleadings, legal instruments, and litigation documents.

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 Associate in Science degree program, and only with the approval of the Program Coordinator.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
LGL 101	Introduction to Paralegal Studies	3
LGL 110	Legal Research	3
ENG 101	English Composition I	3
CST 100	Introduction to Computer Applications	3
MAT 125	Survey of Special Topics in Math	4
		16
SPRING SEMESTER		
LGL 111	Legal Writing	3
LGL 120	Contract Law	3
LGL 140	Property Law	3
ENG 102	English Composition II	3
GOV 201	American Government and Politics OR	
GOV 202	American National Government	3
		15

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
LGL 220	Litigation I	3
LGL	Elective	3
	Lab Science Gen Ed Requirement	4
ENG 128	The Dynamics of Communication	3
	Social Sciences Gen Ed Requirement	3
		16
SPRING SEMESTER		
LGL 215	Law Office Technology	3
LGL 221	Litigation II	3
LGL 210	Tort Law	3
ECO 201	Principles of Economics I OR	
ECO 202	Principles of Economics II	3
	Humanities Gen Ed Requirement	3
		15
Total Program Credits:		62

****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

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:

- Identify, analyze and evaluate legal issues;
- Perform legal research using library resources and computer technology;
- Perform factual research incorporating computer technology;
- Write clearly and accurately according to the standards of the legal profession;
- Prepare forms, pleadings, legal instruments, and litigation documents.

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 Coordinator.

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	Cr.
LGL 101	Introduction to Paralegal Studies	3
LGL 110	Legal Research	3
LGL 111	Legal Writing	3
LGL 120	Contract Law	3
LGL 220	Litigation I	3
		15

SPRING SEMESTER

LGL 140	Property Law	3
LGL 221	Litigation II	3
LGL 215	Law Office Technology	3
LGL	Legal Elective	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

Do you need a quicker way to your career?

Consider a Certificate program. From Criminal Justice to Photovoltaic studies, Certificate programs require fewer credit hours, and some can be completed in only two semesters!



PARAMEDIC EMERGENCY HEALTH SCIENCE

Robert and Freda Brown Paramedic Program ASSOCIATE IN APPLIED SCIENCE DEGREE



This program is intended for students who are interested in helping and treating patients to achieve the highest level of care outside of the hospital. Prospective students should have an interest in the pathophysiology of disease, mathematic competence, and should be able to function effectively in a dynamic work environment.

Paramedics must be confident leaders who can accept the challenge and high degree of responsibility that is required for 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, utilize communication skills to develop rapport with patients/significant others from diverse ages and cultural groups, and function independently at an optimum level in a non-structured, changing environment.

The program meets or exceeds the National Standard Curriculum set forth by the U.S. 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/.

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 Driver's License with clean record.

PMD course enrollment requires:

- Completion of all remedial math and English courses;
- Receipt of hospital sponsorship from a New Jersey Department of Health approved Mobile Intensive Care Unit Hospital. All students should refer to the program website for the specific application process here;
- Two (2) applications for acceptance into the Paramedic Degree Program. The first application is submitted to the College. The second application is submitted to the Paramedic Program to obtain hospital sponsorship, which is then sent directly to the clinical site. The program application, directions and timeline for submission can be obtained here or from the Paramedic Program website;
- Attendance at a mandatory orientation, once a student has been accepted by a hospital for sponsorship. The exact date will be provided upon offering of the clinical sponsorship. There is no make-up session for this mandatory session;
- Students are required to submit a clear criminal background check, demonstration of vaccination status, proof of a two-step PPD skin test, and a clean 5-panel drug screen result at the time of the orientation. The fees associated with these tests are paid by the student;
- There is a sponsorship fee, which is paid directly to the clinical site upon acceptance of sponsorship;

- There is a *Paramedic Program Manual* which has policies and procedures that are specific to the program because of State and/or National mandates.

Upon successful completion of the paramedic program, graduates will be able to:

- Perform competently in the roles and responsibilities outlined in the New Jersey State and National paramedic scope of practice;
- Manage pre-hospital patient care based on appropriate evidence-based emergency medicine and paramedic science;
- Demonstrate critical thinking in decision-making processes to improve the health and welfare of pre-hospital patients;
- Communicate effectively with patients and their family members/significant others, and professional colleagues.

AFTER UNION COUNTY COLLEGE

Graduate of the program will obtain national and New Jersey Paramedic Certification making them eligible for a Paramedic service nationally. Graduates can transfer to a four-year institution for continuation in a bachelor's degree program.

For additional program
information, visit

www.ucc.edu/academics/paramedic

PARAMEDIC EMERGENCY HEALTH SCIENCE

Robert and Freda Brown Paramedic Program ASSOCIATE IN APPLIED SCIENCE DEGREE cont'd

RECOMMENDED SEQUENCE

Prior to enrollment in the Paramedic Program, students need to have completed all developmental course work in English and math, Anatomy and Physiology I, received sponsorship from a clinical hospital site, and have a current NJ EMT certification.

Students are encouraged to complete the general education requirements prior to enrollment, as the Paramedic Program is a rigorous and time-intensive curriculum.

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
BIO 105	Anatomy and Physiology I	4
ENG 101	English Composition I	3
MAT 113	Math Applications	3
PSY 101	General Psychology	3
		13

SPRING SEMESTER		
BIO 106	Anatomy and Physiology II	4
PMD 110	Paramedic I	11
		15

SUMMER I SEMESTER		
ENG 102	English Composition II	3
PMD 113	Paramedic Clinical I	2
		5

SUMMER II SEMESTER		
PMD 114	Paramedic Clinical II	3

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
PMD 213	Paramedic II	11
PMD 214	Paramedic Clinical III	5
		16

SPRING SEMESTER		
PMD 215	Paramedic Field Internship	11
		11

Total Program Credits		63
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PHOTOVOLTAIC (PV)

CERTIFICATE



The PV certificate provides the academic, technical and hands on experience to prepare the student for entry into the workforce and further on the job-training in PV industry related job functions. These include Solar Photovoltaic Installer¹, PV Site Auditor, and PV Commissioning.

The PV certificate also contributes to the furthering of academic growth beyond the certificate level by providing 20 credits of transfer towards an AAS in either Construction Engineering Technology or Electronics/Electromechanical Engineering Technology.

¹ <http://www.bis.gov/soc/2010/soc472231.htm>

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

- Develop strategies for the installation, maintenance, repair and operation of PV systems;
- Define basic construction methods and building materials' properties including structural steel, concrete and wood;
- Perform laboratory procedures and assess the validity of experimental/diagnostic data;
- Employ critical thinking and problem solving skills to analyze, predict the behavior of, and synthesize PV systems and subsystems with minimal supervision;
- Express and interpret both technical and non-technical concepts orally, in written, and electronic formats;
- Demonstrate information literacy through the ability to evaluate, review and interpret technical documents related to current technical advances and innovations in the PV industry.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
CST 115	Introduction to Computer Programming	3
MET 109	Computer Aided Drafting	3
EET 101	Principles of DC Circuits	4
MAT 143	Elementary Mathematical Analysis I	4
		14

SPRING SEMESTER		
CIT 214	Construction Procedures	3
ENG 101	English Composition I	3
EGG 107	Understanding Sustainability and Green Technologies	3
		9

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ARC 218	Construction Methods and Materials	3
EET 270	Photovoltaic (PV) Systems	4
		7
Total Program Credits:		30

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 advisor for details.



Consider a Certificate program. From Criminal Justice to Photovoltaic studies, Certificate programs require fewer credit hours, and some can be completed in only two semesters!

PHYSICAL THERAPIST ASSISTANT

ASSOCIATE IN APPLIED SCIENCE DEGREE



This is a 69-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.

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 the ability to deliver safe, appropriate and effective interventions to the populations they serve under the direction and supervision of a physical therapist within the scope of PTA practice;
- Demonstrate the ability to communicate appropriately, and educate the populations they serve;
- Contribute to the continuous improvement of the profession by actively pursuing career development activities;
- Utilize human, fiscal and system resources appropriately to provide efficient and ethical physical therapy service;
- Demonstrate professionalism, accountability, integrity and cultural competence in all duties associated with being a physical therapist assistant.

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 50 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 on the 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 an academic advisor for course selection.

If necessary, 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

PRE-CLINICAL PHASE

COURSE#	COURSE	Cr.
PREREQUISITE COURSE WORK		
ENG 101	English Composition I*	3
BIO 105	Anatomy and Physiology I*+	4
MAT 119	Algebra*	4
PSY 101	General Psychology*	3
PSY 212	Psychology of Adulthood and Aging*	3
		17

CLINICAL PHASE

COURSE#	COURSE	Cr.
SPRING SEMESTER		
PTA 115	Functional Anatomy	4
PTA 130	PT Procedures I	7
PTA 251	Independent Living	2
		13

SUMMER SESSION I

ENG 102	English Composition II**	3
PTA 140	PT Procedures II	3
		6

SUMMER SESSION II

BIO 106	Anatomy and Physiology II+	4
		4

FALL SEMESTER

PTA 217	Clinical Seminar and Practice I	7
PTA 220	PT Procedures III	6
PTA 221	PT Procedures IV	4
		17

SPRING SEMESTER

PTA 223	Clinical Seminar II	3
PTA 224	Clinical Practice II	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 may be offered during the day, evening and/or weekend. College courses may be taken during the evening, weekend hours or as distance education, as available. For all students, clinical rotations may be scheduled during the day, evening, and/or weekend hours in order to obtain optimum patient 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 patient care experiences.

Graduates of this program are eligible to take the NCLEX-PN examination for Practical Nurse licensure. Licensed Practical Nurses provide patient 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

Additional information about program enrollment, policies, and courses is available at: <http://www.ucc.edu/academics/Certificates/practicalnursing.aspx>

CURRICULUM OUTCOMES

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

- Provide holistic care to patients 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 patients, families, and other members of the health care team;
- Assume accountability for personal and professional growth;
- Apply clinical reasoning in interactions with patients, 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 patients at different developmental levels throughout the life span.

Criminal History Background Check

All students enrolled in the Practical Nursing program are required to have a clear criminal history background check to participate in clinical care experiences. The background check is mandated by all clinical agencies and must be completed prior to enrollment in PNU 190. Eligible students will be provided with information regarding the approved vendor for this service. Please be aware that any history of criminal activity may prevent participation in clinical experiences at clinical affiliating agencies.

It is the students' responsibility to notify the nursing program of any change in their criminal status.

Accreditation

The Practical Nursing Program at Union County College has received accreditation from the NJ Board of Nursing through 2023 and from the Accreditation Commission for Education in Nursing (ACEN) through 2019.

Applicants and current students may contact the Board of Nursing and/or ACEN with inquiries or concerns regarding the nursing program at the:

New Jersey Board of Nursing
124 Halsey Street
PO Box 45010
Newark, NJ 07101
(973) 504-6430
www.state.nj.us/lps/ca/medical/nursing.htm

ACEN
3343 Peachtree Road NE, Suite 850
Atlanta, Georgia 30326
(404) 975-5000 Fax: (404) 975-5020
info@acenursing.org
www.acenursing.org

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

COURSE#	COURSE	Cr.
FALL/SPRING SEMESTER		
ENG 101	English Composition I	3
BIO 102	Human Biology	4
PSY 101	General Psychology	3
PNU 190	Nursing Concepts	5
		15
SPRING/SUMMER SEMESTER		
PNU 191	Adult Health I	10
	Free Elective	3-4
		13-14
SUMMER/FALL SEMESTER		
PNU 210	Maternal, Pediatric, and Mental Health Nursing	9
PSY 204	Human Life Span	3
		12
FALL/SPRING SEMESTER		
PNU 211	Adult Health II and Role Transition	12
		12
Total Program Credits:		52-53

PSYCHOLOGY

Option offered through Liberal Arts • ASSOCIATE IN ARTS DEGREE

Psychology is the scientific study of behavior and mental processes. This program is for those students who wish to transfer to a four-year institution and major in Psychology.

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;
- 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;
- Develop insights and apply psychological principles to personal, social, and organizational issues;
- Evaluate evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline;
- Illustrate information competence with the ability to use computers and other technology, and the ability to communicate effectively in a variety of formats;
- Understand and respect the complexity of sociocultural and international diversity.



RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
HIS 101	Introduction to Western Civilization I	3
MAT 125	Survey of Special Topics in Mathematics	4
PSY 101	General Psychology	3
	Modern Language Gen Ed Requirement	3
		16
SPRING SEMESTER		
ENG 102	English Composition II	3
HIS 102	Introduction to Western Civilization II	3
MAT 127	Elementary Statistics	4
PSY 102	Psychology of Personality	3
	Modern Language Gen Ed Requirement	3
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 128	The Dynamics of Communication OR ENG 129 Public Speaking	3
SOC 101	Principles of Sociology	3
CST 100	Introduction to Computer Applications	3
PSY 200-Level Course		3
	Lab Science Gen Ed Requirement	4
		16
SPRING SEMESTER		
SOC 206	Minorities in American Life	3
PSY 213	Research Methods in Psychology	3
PSY 200-Level Course		3
	Humanities Gen Ed Requirement	3
		12
Total Program Credits:		60

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 advisor for details.

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 advising, 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.

RUTGERS SHRP'S PROGRAM

The Rutgers 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 Rutgers-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.

To qualify for admission to the professional phase of the program offered by Rutgers, students must complete 21 credits of their Union County College general education requirements (including ENG 101, ENG 102) and UPR 101 (PSRT1101). 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 RUTGERS ADVISOR WHEN PLANNING YOUR COURSE SCHEDULE.

GENERAL EDUCATION REQUIREMENTS – 32 CREDITS

ENG 101 English Composition I
 PSY 101 General Psychology
 CST 100 Introduction to Computer Applications
 MAT 119 Algebra
 SOC 101 Principles of Sociology
 BIO 102 Human Biology
 ENG 102 English Composition II
 PSY 204 Lifespan Development
 PHI 205 Introduction to Philosophy
 ENG 128 The Dynamics of Communication
 OR
 ENG 129 Public Speaking

RUTGERS REQUIREMENTS – 3 CREDITS

UPR 101 (PSRT1101) Introduction 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 and Psychiatric Rehabilitation with the Rutgers School of Health Related Professions.

RECOMMENDED SEQUENCE

PROFESSIONAL PHASE OF PROGRAM

COURSE#	COURSE	CR.
FALL SEMESTER		
PSRT 1102	Communication Techniques- Interviewing and Counseling	3
PSRT 1103	Introduction to Group Dynamics*	3
PSRT 1204	Clinical Principles in Psychosocial Rehabilitation*	3
		9
SPRING SEMESTER		
PSRT 1019	Clinical Practicum in Psychosocial Rehabilitation I*	6
PSRT 2121	Community Resource Management*	3
		9
FALL SEMESTER		
PSRT 2019	Clinical Practicum in Psychosocial Rehabilitation II*	6
PSRT 2231	Emerging Topics in Psychosocial Rehabilitation*	3
		9
Total Program Credits:		62

* Students register through Rutgers for PSRT courses and pay Rutgers 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 Rutgers 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 Rutgers for the PSRT courses and pay the Rutgers 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 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.

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. This is a substantial program geared to 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 macro-economic and micro-economic theories and concepts in a mixed market economy;
- 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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ACC 103	Accounting I	4
ENG 101	English Composition I	3
GOV 201	American Government and Politics OR GOV 202 American National Politics	3
MAT 119	OR Higher Level Mathematics Gen Ed Requirement*	4
HIS 101	Introduction to Western Civilization I	3

17

SPRING SEMESTER		
ACC 104	Accounting II	4
ENG 102	English Composition II	3
MAT 146	Brief Calculus with Applications OR MAT 246 Business Statistical Analysis	3 or 4
HIS 102	Introduction to Western Civilization II	3

13 or 14

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
Laboratory Science	Gen Ed Requirement	4
ENG 128	The Dynamics of Communication OR ENG 129 Public Speaking	3
BUS 105	Organization and Management	3
ECO 201	Principles of Economics I OR ECO 202 Principles of Economics II	3
HIS 201	United States History to 1865	3

16

SPRING SEMESTER		
CST 100	Introduction to Computer Applications	3
GEO 201	World Geography	3
GOV 204	Public Administration	3
HIS 202	United States History Since 1865	3
Humanities	Gen Ed Requirement	3

15

Total Program Credits: 61 or 62

* Consult with Division Dean's office to choose the appropriate course. Mathematics courses assume the completion of all prerequisites or satisfactory performance on the College Level Mathematics Exam.

RADIOGRAPHY

JFK MEDICAL CENTER MUHLENBERG HAROLD B. AND DOROTHY A. SNYDER SCHOOLS – ASSOCIATE IN SCIENCE DEGREE



By virtue of an agreement between Union County College and **JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools**, Plainfield, NJ, 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.

Students do not need to complete the general education courses in order to apply to the Radiography 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools at (908) 668-2400 or (908) 668-2844. For additional information, please visit the school website at www.jfkmuhlenbergschool.org.

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 MEDICAL CENTER MUHLENBERG HAROLD B. AND DOROTHY A. SNYDER SCHOOLS

Graduates are eligible to sit for the American Registry of Radiologic Technologists and the New Jersey State Licensure Examinations.

RADIOGRAPHY

**JFK MEDICAL CENTER MUHLENBERG
HAROLD B. AND DOROTHY A.
SNYDER SCHOOLS
ASSOCIATE IN SCIENCE DEGREE cont'd**

RECOMMENDED SEQUENCE

PRE PROFESSIONAL GENERAL EDUCATION COURSES

COURSE#	COURSE	Cr.
RNTM 101	Medical Terminology I	1
MAT 119	Algebra	4
MAT 143	Elementary Mathematical Analysis	4
OR		
MAT 127	Statistics	4
ENG 101	English Composition I	3
ENG 102	English Composition II	3
BIO 105	Anatomy and Physiology I	4
BIO 106	Anatomy and Physiology II	4
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
PHY 125/PHYL 125	Elements of Physics with Lab	4
OR		
PHY 101/PHYL 111	General Physics with Lab	4
CST 100	Introduction to Computer Applications	3
OR		
CST 101	Introduction to Information Systems	3
Humanities Gen Ed Requirement		3
Total General Education Credits:		39

NOTE: ENG I and II, BIO 105 and 106, MAT 119, are required prerequisite courses that must 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 Day Program. Students must be available 5 days a week, Monday-Friday.

COURSE#	COURSE	Cr.
FIRST YEAR/FALL SEMESTER		
RNTM 103	Introduction to Medical Imaging	4
RADM 120	Radiologic Procedures I	3
CLPR 901	Clinical Practicum – 2 days per week	7
FIRST YEAR/SPRING SEMESTER		
RADM 110	Radiographic Exposure I	3
RADM 121	Radiologic Procedures II	3
RNTM 102	Healthcare Today	2
CLPR 902	Clinical Practicum – 3 days per week	8
FIRST YEAR/SUMMER I		
RADM 122	Radiologic Procedures III	2
RADM 135	Radiation Biology	2
CLPR 903	Clinical Practicum – 3 days per week	4
FIRST YEAR/SUMMER II		
CLPR 904	Clinical Practicum – 2-4 days per week	
SECOND YEAR/FALL SEMESTER		
RADM 211	Radiographic Exposure II	3
RADM 212	Radiographic Physics	3
RADM 223	Radiologic Procedures IV	3
CLPR 905	Clinical Practicum – 3 days per week	9
SECOND YEAR/SPRING SEMESTER		
RADM 201	Radiographic Pathology	3
RADM 213	Radiographic Equipment	3
RADM 224	Radiologic Procedures V	3
RNTM 201	Fundamentals of Computed Tomography	3
RNTL 201	CT Skills Lab Assessment	1
CLPR 906	Clinical Practicum – 3 days per week	13
SECOND YEAR/SUMMER I		
CLPR 907	Clinical Practicum – 3 days per week	
SECOND YEAR/SUMMER II		
CLPR 908	Clinical Practicum – 3 days per week	
Total Professional Course Credits:		41
Total Program Credits:		80

NOTE: Junior Seminar will be taken first year summer semester and Senior Seminar will be taken in second year summer semester.

- RNTM signifies courses offered to radiography and diagnostic medical sonography students only.
- 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 Rutgers 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.

An entrance exam and interview are also required. 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 Rutgers SHRP Respiratory Care Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC) (www.coarc.com).

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
BIO 105	Anatomy and Physiology I	4
CHE 105	Chemistry-Health Sciences	4
ENG 101	English Composition I	3
PSY 101	General Psychology	3
MAT 119	Algebra	4
CST 100	Introduction to Computer Applications	3
		21
SPRING SEMESTER		
ENG 102	English Composition II	3
BIO 106	Anatomy and Physiology II	4
BIO 108	Microbiology	4
ALH 201	Pathophysiology and Health Care	3
Humanities Gen Ed Requirement		6
		20

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
RSTN 2000	Core Concepts in Respiratory Care	2
RSTN 2100	Fundamentals of Respiratory Care	4
RSTN 2231	Applied Cardiopulmonary Pathophysiology I	3
RSTN 2200	Cardiopulmonary Pharmacology	3
RSTN 2189	Clinical Practice I	1
		13
SPRING SEMESTER		
RSTN 2250	Principles of Ventilatory Support	5
RSTN 2232	Applied Cardiopulmonary Pathophysiology II	2
RSTN 2355	Cardiopulmonary Evaluation	3
RSTN 2230	Cardiopulmonary Evaluation	3
RSTN 2289	Clinical Practice II	2
		15
SUMMER SEMESTER		
RSTN 2340	Patient Management Critical Care	3
RSTN 2370	Long Term, Home and Rehabilitative Care	3
RSTN 2389	Clinical Practice III	3
		9
Total Program Credits:		78

Students register for the professional phase courses at Rutgers and pay the Rutgers undergraduate tuition rate and fees.

SOCIAL SERVICES

ASSOCIATE IN SCIENCE DEGREE



An associate degree in Social Services from Union County College prepares students for further academic training and entry into professional agencies focused on the helping professions. In addition to core subjects, Social Services degree students take Psychology and Sociology courses to develop a consistent foundation in these disciplines, which lead to basic understanding of human behavior and the needs of individuals and groups.

Assisting individuals or groups with a specific need or problem includes providing support and guidance, such as referral to social service agencies. Students with a Social Services degree from Union County College may transfer to baccalaureate-granting institutions to pursue higher level degrees in Social Work, Psychology, or Sociology. Reciprocity agreements with undergraduate schools and colleges/universities with undergraduate and graduate levels frequently enable Union County College students to transfer without having to take additional associate-level undergraduate classes.

Students with a Social Services degree from Union County College may also participate in entry-level professional positions.

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

- Demonstrate critical thinking, problem solving ability and ethical thinking through effective communication;
- Explain the origin and purpose of psychological and sociological theories;
- Apply quantitative and qualitative methods used in sociological and psychological research;
- Demonstrate information literacy through regular use of online technologies, i.e. Angel or other college designated courseroom, use of the college library to access database for scholarly journals, and writing assessment requiring basic APA methodologies;
- Present cultural sensitivity through course work and behavior that reflect 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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
SOC 101	Principles of Sociology	3
PSY 101	General Psychology	3
COM 100	Communications Technologies	4
HIS 101 OR HIS 102 OR HIS 103		3
		16
SPRING SEMESTER		
ENG 102	English Composition II	3
SOC 102	Social Problems	3
PSY 105	Group Dynamics	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
PSY 102	Psychology of Personality	3
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
	Lab Science Gen Ed Requirement	4
PSY 204	Lifespan Development OR PSY 205 Child Psychology, OR PSY 206 Adolescent Psychology	3
SOC 207	Social Inequality	3
GOV 201	American Government and Politics	3
		13
SPRING SEMESTER		
HUS 101	Community Resources in Human Services	3
SOC 206	Minorities in American Life	3
SOC 209	Introduction to Social Policy	3
PSY 212	Psychology of Adulthood and Aging	3
PSY/SOC 213	Social Research Methods	3
		15
Total Program Credits:		60

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:

- Apply sociological concepts and theories to social phenomena presented in each Sociology course;
- Utilize the scientific methods and quantitative methodologies to gather and evaluate data and draw conclusions;
- Explain social, cultural and global variations;
- Use critical thinking skills to analyze and solve social problems;
- Apply sociological theories to the analysis of social institutions that influence human behavior;
- 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 advisor for details.

Is a 4-year degree in your future?

An Associate in Arts (A.A.) or Associate in 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

FIRST YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
SOC 101	Principles of Sociology	3
ENG 101	English Composition I	3
COM 100	Communications Technologies	4
HIS 101	Introduction to Western Civilization I	3
Total:		13

SPRING SEMESTER		
ENG 102	English Composition II	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
SOC 102	Social Problems OR	
	SOC 203 International Social Problems	3
HIS 102	Introduction to Western Civilization II	3
SOC 206	Minorities in American Life	3
Total:		16

SECOND YEAR

COURSE#	COURSE	Cr.
FALL SEMESTER		
ENG 128	The Dynamics of Communication OR	
	ENG 129 Public Speaking	3
Lab Science	Gen Ed Requirement	4
SOC 207	Social Inequality OR	
	Sociology Elective	3
PSY 101	General Psychology	3
Modern Language	Gen Ed Requirement	3
		16

SPRING SEMESTER		
SOC 219	Gender and Work OR	
	Sociology Elective	3
SOC 213	Social Research Methods	3
SOC 273	Marriage and the Family	3
Humanities	Gen Ed Requirement	3
Modern Language	Gen Ed Requirement	3
		15

Total Program Credits:	60
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DIAGNOSTIC MEDICAL SONOGRAPHY

JFK MEDICAL CENTER MUHLENBERG HAROLD B. AND DOROTHY A. SNYDER SCHOOLS – ASSOCIATE IN SCIENCE DEGREE



By virtue of an agreement between Union County College and **JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools**, Plainfield, 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 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools for admission to the Diagnostic Medical Sonography program. 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools for acceptance.

Students do not need to complete the general education courses in order to apply to the Sonography program

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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools Diagnostic Medical Sonography Program (Program Number 110144).

Students are enrolled in the JFK Medical Center Muhlenberg Harold B. and Dorothy A. Snyder 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder Schools at (908) 668-2400 or (908) 668-2844. For additional information, please visit the school website at www.jfkmuhlenbergschools.org.

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 MEDICAL CENTER MUHLENBERG HAROLD B. AND DOROTHY A. 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.

DIAGNOSTIC MEDICAL SONOGRAPHY

JFK MEDICAL CENTER MUHLENBERG HAROLD B. AND DOROTHY A. SNYDER SCHOOLS ASSOCIATE IN SCIENCE DEGREE cont'd

RECOMMENDED SEQUENCE

24-MONTH FULL-TIME CURRICULUM
STUDENTS MUST COMPLETE THE GENERAL EDUCATIONAL
REQUIREMENTS FOR THE ASSOCIATE IN SCIENCE DEGREE AND

GENERAL EDUCATION REQUIREMENTS:

COURSE#	COURSE	CR.
BIO 105	Anatomy and Physiology I	4
ENG 101	English Composition I	3
MAT 119	Algebra	4
ENG 102	English Composition II	3
MAT 127	Elementary Statistics	4
CST 100	Introduction to Computer Applications OR	
CST 101	Introduction to Information Systems	3
ALH 201	Pathophysiology and Health Care	3

BIO 106	Anatomy and Physiology Part II	4
Humanities	Gen Ed Requirement	3
PSY 101	General Psychology	3
SOC 101	Sociology	3
PHY 101/PHYL 111	General Physics with Lab OR	
PHY 125/PHYL 125	Elements of Physics with Lab	4

41

ENG I and II, BIO 105 and 106, MAT 119, PHY 101 or PHY 125 are required prerequisite courses that must be completed prior to the professional courses.

THE FOLLOWING IS THE SEQUENCE OF THE PROFESSIONAL COURSES

PROFESSIONAL COURSES

Spring Semester Start – on a seat availability basis. This is a Full time Day program. Students must be available 5 days a week, Monday - Friday.

COURSE#	COURSE	CR.
SPRING SEMESTER		
DMSM 101	Patient Care	2
RNTM 101	Medical Terminology	1
		3

SUMMER I AND II

DMSM100	Introduction to Sonography	2
DMSM 102	Cross Sectional Anatomy	2
DMSM 103	Ultrasound Physics and Instrumentation I	3
CLPS 901	Clinical Sonography I	0
		7

FALL SEMESTER

RNTM 102	Healthcare Today	2
DMSM 105	Ultrasound of the Abdomen I	3
DMSM 109	Obstetrical Sonography I	3
DMSM 104	Ultrasound Physics and Instrumentation II	3
CLPS 902	Clinical Sonography II	0
		11

SPRING SEMESTER

DMSM 106	Ultrasound of the Abdomen II	3
DMSM 117	Obstetrical Sonography II	3
CLPS 903	Clinical Sonography III	0
		6

SUMMER I AND II

DMSM 107	Ultrasound of the Female Pelvis	3
DMSM 111	Superficial Structures I	3
CLPS 904	Clinical Sonography IV	0
		6

FALL SEMESTER

DMSM 118	Superficial Structures I	3
DMSM 116	Registry Review – Sonography	3
CLPS 905	Clinical Sonography V	0
		6

Total Professional Credits: 39

Total Program Credits: 80

All of the professional and general education courses **MUST** be successfully completed according to programs grading policy 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, ethical reasoning, and quantitative reasoning skills to understand and resolve issues in sport management;
- Explain how sports impact local, national and international affairs;
- Analyze the sociological, legal, financial, and historical influences on the field of sport management;

- Apply knowledge of the aspects of finance, human resources, marketing, budgeting, career exploration, and resume writing to sport management;
- Communicate effectively in writing, verbal, or electronic formats to a diverse, multicultural audience in the field of sport management;
- Demonstrate the ability to identify, locate, evaluate, and effectively manage information using library and electronic resources to solve complex problems in the study of sport management.

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.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
BSM 101	Introduction to Sport Management	3
ACC 103	Accounting I	4
CST 100	Introduction to Computer Applications	3
ENG 101	English Composition I	3
BUS 105	Organization and Management	3
		16

SPRING SEMESTER		
PSY 101	General Psychology	3
BSM 110	Evolution of American Sports	3
ENG 122	Introductory Technical and Business Writing OR ENG 102 English Composition II	3
ACC 104	Accounting II	4
BUS 110	Business and Technology	3
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 128	The Dynamics of Communication OR ENG 129 Public Speaking	3
MAT 127	Elementary Statistics	4
PED 101	Concepts of Adult Fitness	2
SOC 101	Principles of Sociology	3
BSM 205	Sports in Society	3
		15

SPRING SEMESTER		
ECO 202	Principles of Economics II	3
BSM 220	Current Issues in Sports	3
BUS 208	Principles of Marketing	3
BSM 210	Sport and Law	3
BUS 290*	Co-op Education Experience in Business	3
		15

Total Program Credits: 62

*Students planning to transfer may take COM 101 or ECO 201.

Students should ascertain from the transfer institution which course is preferred.

SUSTAINABILITY SCIENCE

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



The Sustainability Science Option offers the first two years of a bachelor's degree program with a major in Sustainability Science/Studies. It is designed for students who seek a career that focuses on the principles of sustainability as applied to a specific industry or business. A four-year graduate would be qualified for such current job titles as: Business Sustainability Officer or Manager, Sustainability Auditor, Energy Consultant, Design and Materials Consultant and Green Construction Manager.

Other course substitutions may be appropriate and students are encouraged to consult with the STEM Dean's office regarding appropriate course selections. Because of the diversity of undergraduate Sustainability Science programs, it may be necessary for students to take one or more second year courses at their transfer institution.

The stated sequence of courses for the Sustainability Science option assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the College Level Mathematics exam. Contact the STEM Division for further information.

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

- Demonstrate an understanding of ecological, geological and sustainability principles and their relations to problems involving environmental quality control and sustainability issues;
- Employ computer software applications to represent and solve technical problems;
- Perform laboratory procedures and assess the validity of experimental/diagnostic data;
- Employ critical thinking and problem solving skills to solve technical problems;
- Express and interpret both technical and non-technical concepts orally, in writing, and in electronic formats;
- Demonstrate information literacy through familiarity and the effective use of related information resources.

AFTER UNION COUNTY COLLEGE

Graduates can transfer to a bachelor's degree-granting institution to major in Sustainability Science/Studies.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
CHE 111	General Chemistry I	4
EGG 107	Introduction to Sustainability	3
ENG 101	English Composition I	3
MAT 171	Unified Calculus I	4
EGG 105	Introduction to Fundamentals of Engineering	3
		17

SPRING SEMESTER

ENG 102	English Composition II	3
Elective	Science	4
MAT 172	Unified Calculus II	4
PHY 111	Mechanics	3
PHYL 111	Mechanics Lab	1
CST 162	Computer Algorithms	4
		19

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
Elective	Science	4-5
MTR 101	Introduction to Meteorology	4
GEY 101	Physical Geology	4
HIS 101	Introduction to Western Civilization I OR	
	HIS 102 Introduction to Western Civilization II	3
		15-16

SPRING SEMESTER

Elective	Science	3-4
Elective	Biology	4
ECO 201	Principles of Economics I OR	
	ECO 202 Principles of Economics II	3
Humanities Gen Ed Requirement		3
		13-14

Total Program Credits: 64-66

ELECTIVE NOTE: Consult with STEM Dean's office for choice of all electives.

Science electives will be chosen with permission of the STEM Dean's office from course offerings in the Biology, Chemistry and Engineering/Technology/Architecture programs.

Other course substitutions may be appropriate and students must consult with the STEM Dean's office regarding appropriate course selections. Because of the diversity of undergraduate Sustainability Science programs, it may be necessary for students to take one or more second year courses at their transfer institution.

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:

- Apply theory and hands-on practices to the specific area of technical studies within their employing organization;
- Perform laboratory procedures and assess the validity of experimental/diagnostic data;
- Employ critical thinking and problem solving skills to solve technical problems;
- Demonstrate the ability to effectively communicate and present information in a logical and systematic manner;
- Express and interpret both technical and non-technical concepts orally, in written, and electronic formats;
- Demonstrate information literacy through familiarity and the effective use of technical literature in their field of study.

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

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
MAT 119	Algebra*	4
Up to 8 Technical Studies		
Credits Awarded ¹		8
		15

SPRING SEMESTER		
ENG 102	English Composition II OR ENG 122 Technical Writing	3
CST	Gen Ed Requirement ²	3
Elective	Technical ³	4
Up to 8 Technical Studies		
Credits Awarded		8
		18

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 128	The Dynamics of Communication OR ENG 129 Public Speaking	3
Lab Science	Gen Ed Requirement ⁴	4
Elective	Technical ³	4
Up to 5 Technical Studies		
Credits Awarded		5
		16

SPRING SEMESTER		
Elective	Technical ³	4
Humanities/Social Science/History	Gen Ed Requirement	3
Up to 4 Technical Studies		
Credits Awarded		4
		11

Total Program Credits: 60

* 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. An 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.

¹ 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 advisor. 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.

² Choose any 3 credit computer science OR computer information systems course from the list of Gen Ed courses in the current catalog.

³ Upon consultation with the advisor, additional technical electives may be selected from the following areas: ARC, AST, BIO, CHE, CIT, CST, EET, GEY, MAT, and PHY, if required.

⁴ Choose any 4 credit lab science course from the list of Gen Ed courses in the current catalog.

VISUAL ARTS

Option offered through Liberal Arts ASSOCIATE IN ARTS DEGREE



The Visual Arts option is designed for students preparing to transfer to a four-year college or university to pursue a Bachelor of Arts or Bachelor of Fine Arts in various areas of the visual arts. Students will be provided with a background in studio art including study in art appreciation, art history, studio foundations, and various applications of art.

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

- Apply formal creative issues including composition, balance, space, line, and form;
- Demonstrate skills associated with two-dimensional imaging;
- Demonstrate use of diverse materials, various media, and techniques in foundation level drawing, painting or photography studio activities;
- Analyze, both orally and in writing, the visual arts through art history;
- Use technology for learning and research pertinent to the visual arts.
- Create a portfolio that demonstrates competency in the visual arts.

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 advisor for details.

RECOMMENDED SEQUENCE

FIRST YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
ENG 101	English Composition I	3
FIA 109	Introduction to Drawing	3
MAT 125	Survey of Special Topics in Mathematics OR	
MAT 127	Elementary Statistics	4
Modern Language Gen Ed Requirement		3
HIS 101	Introduction to Western Civilization I	3
		16

SPRING SEMESTER		
ENG 102	English Composition II	3
FIA 110	Introduction to Painting	3
FIA 111	Art History Survey I OR	
FIA 112	Art History Survey II	3
HIS 102	Introduction to Western Civilization II	3
Lab Science Gen Ed Requirement		4
		16

SECOND YEAR

COURSE#	COURSE	CR.
FALL SEMESTER		
Elective in Liberal Arts*		3
FIA 108	Appreciation of Art	3
FIA 115	Fundamentals of Figure Drawing	3
PSY 101	General Psychology	3
MAT/SCI/TECH Gen Ed Requirement		4
		16

SPRING SEMESTER		
ENG 128	Dynamics of Communication OR	
	ENG 129 Public Speaking	3
FIA	Elective*	3
HUM Gen Ed Requirement		3
SOC SCI Gen Ed Requirement		3
		12

Total Program Credits: 60

*FINE ARTS ELECTIVE AREAS:

ILLUSTRATION:

FIA 104	Introduction to 2D Design
FIA 116	Fundamentals of Painting
FIA 128	Introduction to Illustration
FIA 228	Advanced Illustration

PHOTOGRAPHY:

FIA 122	Introduction to Film Photography
FIA 123	Introduction to Color Film Photography
FIA 125	Introduction to Digital Imaging
FIA 222	Advanced Black and White Photography
FIA 225	Advanced Digital Imaging



COURSE DESCRIPTIONS



YOUR GUIDE TO UNION COUNTY COLLEGE'S COURSE DESCRIPTIONS

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ADEC • Dental – Rutgers	132
ADM • Administrative Support	133
ALH • Allied Health	134
ARB • Arabic	134
ARC • Architecture	134
ASL • American Sign Language	135
AST • Astronomy	136
AUT • Automotive Technology	137
BIO • Biology	138
BSM • Sport Management	139
BUS • Business	140
CHE • Chemistry	141
CHN • Chinese	142
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CLPS • Clinical – Sonography	143
COM • Communications	144
CRJ • Criminal Justice	145
CST • Computer Science and Technology	146
DBI • Deaf-Blind Interpreting	147
DENA • Dental – Rutgers	147
DENH • Dental – Rutgers	148
DMSM • Diagnostic Medical Sonography	150
ECO • Economics	150
EDU • Education	151
EET • Electronics/ Electromechanical Technology	151
EGG • Engineering	152
EIP • Educational Interpreting	153
EMT • Emergency Medical Technician	153
ENG • English	153
ESL • English as a Second Language	156
FIA • Fine Arts	158
FRE • French	160
FST • Fire Science Technology	160
GDP • Game Design Development	161
GEO • Geography	161

Code • Subject	Pg
GER • German	161
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HIS • History	162
HRS • Honors	164
HSM • Hospitality	164
HUD • American Sign Language and Deaf Studies	164
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LIS • Library Science	168
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MET • Mechanical Engineering Technology	169
MTR • Meteorology	170
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PHI • Philosophy	174
PHY • Physics	174
PMD • Paramedic	175
PNU • Practical Nursing	175
PSRT • Psychosocial Rehabilitation – Rutgers	176
PSY • Psychology	177
PTA • Physical Therapist Assistant	177
RADM • Radiology	178
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RSTN • Respiratory Care – Rutgers SHRP	179
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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. Permission of Division Dean's office. Prerequisite: ENG 097 if required. 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. Permission of Division Dean's office. 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. 1 lecture and 2 laboratory hours per week. 2 credit hours.

ACC 290 Co-op Education Experience in Accounting

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 Division approval required. 3 credit hours.

ADEC • Dental – Rutgers

ADEC 1110 Dental Head and Neck Anatomy

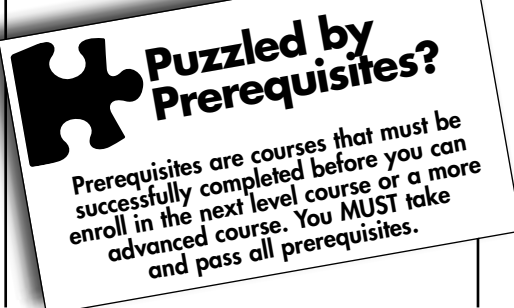
This course is a study of the basic structures of the oral cavity, a study of nomenclature, structure and morphology, and function of the teeth. Demonstrations and lecture sessions are designed to emphasize the clinical appearance of the anatomical features of the teeth and to point out relationships 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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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. 15 lecture hours, 15 practicum hours. 1 credit hour. This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.edu>



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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 practicum hours. 1 credit hour. This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 practicum hours. 1 credit hour. This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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. Prerequisite: ENG 097. 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 of Division Dean's office. 1 lecture hour and 2 laboratory hours per week. 2 credit hours.

ADM 110 Health Care Computer Skills

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 097. 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. Prerequisite: ENG 096. 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. Prerequisite: ENG 097. 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, spell/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. Material covered in this course helps prepare the student for the Microsoft Certified Applications Specialist (MCAS) exam in Word. Prerequisites: ADM 101, ENG 097. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 214 Word II

This course is a continuation of ADM 213 (Word I). 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. 2 lecture and 2 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. Prerequisites: ADM 101, ENG 097 if required. 2 lecture and 2 laboratory hours per week. 3 credit hours.

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 097 if required. 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 097 if required. 2 lecture and 2 laboratory hours per week. 3 credit hours.

ADM 290 Co-op Education Experience in Administrative Support

This course is 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 of Division Dean's office. 3 credit hours.

ALH • Allied Health**ALH 161 Medical Terminology**

This course is designed to familiarize students with the basic vocabulary used in health care. Students will apply word-building, using prefixes, suffixes, roots and combining forms, to master the terminology of the health field. A systems approach will be used to survey the basic anatomy and physiology of the human body, with identification of selected terms that define the pathologies, diagnostic procedures, and treatments associated with each system. 3 lecture hours per week. 3 credit hours.

ALH 201 Pathophysiology and Health Care

This course will introduce the student to the mechanisms of health and human disease. Students will be introduced to factors influencing health and the promotion and maintenance of wellness. An overview will be provided of the etiology, diagnosis and treatment of major diseases, along with how to apply this knowledge as an allied health care practitioner. Focus will be placed on the most common clinical conditions likely to be encountered by health care professionals. Classification, symptoms, and terminology will be discussed. Prerequisite: College-entry level competency in English and Math. 3 lecture 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 instructor. Prerequisite: ENG 096, if required. 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 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**

This course introduces the student 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. The student learns through skills such as sketching and 3-D modeling to create a design language of three-dimensional relationships. Spatial relationships of three dimensions and the philosophy of architectural design are also included in this course. 3 lecture and 5 laboratory hours per week. 5 credit hours.

ARC 102 Architectural Design II

In this course, the student engages in 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. This course also covers the execution and criticism of a series of related architectural problems and projects. Prerequisite: ARC 101 or approval of Division. 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 096. 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 Aided 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 introduced in ARC 101 and ARC 102. Execution and project reviews will be conducted in a group format. Prerequisite: ARC 102 or approval of Division. 2 lecture and 3 laboratory hours per week. 3 credit hours.

ARC 206 Architectural 3D Design

This course covers the more advanced aspects of Computer Aided Design of architecture and design projects. Students will complete projects involving the resolution of a more complex set of design issues. They will use 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 approval of Division. 2 lecture 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 to prepare a design portfolio. The student will be 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 approval of Division. 1 lecture 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 096, MAT 022 or approval of Division. 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.

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. Prerequisite: ENG 097, if required. Co-requisite: ASL 102, except when taken as modern language requirement only. 4 lecture 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. Prerequisite: ENG 097, if required. Co-requisite: ASL 101. 2 lecture hours per week. 2 credit hours.

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. Co-requisites: ASL 104 and HUD 104. 4 lecture 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. Co-requisites: ASL 103 and HUD 104. 2 lecture hours per week. 2 credit hours.

ASL 200 – Academic American Sign Language

This course is designed to provide a foundational development of students' vocabulary and language skills in several content areas used in education, business, and consultative settings. Students will be introduced to vocabulary genres such as medical, health, mathematics, science, engineering, technology, etc. Not limited to the above, other genres such as psychology, English, art, social services can be touched on. Along with application of the vocabulary, ASL linguistic features will be focused on numerical incorporation, indicating and depicting verbs, non-manual modifiers, grammatical aspects, use of fingerspelling as a semantic specification (flagging), and spatial mapping in appropriate ASL discourse structure. Prerequisites: ASL 103 and ASL 104. Co-requisites: ASL 201 and ASL 205. 3 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. Co-requisite: ASL 200, ASL 205. 3 lecture 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. 3 lecture 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. Co-requisite: ASL 200, ASL 201 or permission of Division Dean's office. 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. Co-requisite: ASL 202. 3 lecture hours per week. 3 credit hours.

ASL 210 American Sign Language and Deaf Literature

Students read and discuss in ASL the various literary genres of American Sign Language and Deaf literature. Students develop foundational knowledge and skills in ASL Literature. Concentration is on the work of current, recognized narrators in literacy, face-to-face storytelling traditions, and current forms of literary genres. A research project is required by the end of the course. Prerequisite: ASL 201 and ASL 205 or permission of Division Dean's office. 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 Division Dean's office. 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. Prerequisite: ENG 096. 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 spectro-scope 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: ENG096. 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, dismounting 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. Prerequisite: AUT 100, or equivalent experience and approval of Division. 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. Prerequisite: AUT 100, or equivalent experience and approval of Division. 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). Prerequisite: AUT 100, or equivalent experience and approval of Division. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 121 Automotive Electrical I

This 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. Prerequisite: AUT 100, or equivalent experience and approval of Division. 3 lecture and 3 laboratory hours per week. 4 credit hours.

AUT 122 Automotive A/C and 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 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. Prerequisite: AUT 100, or equivalent experience and approval of Division. 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. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BIO • Biology**▲ BIO 101 Introduction to Biology**

One semester introductory course covering basics of life sciences, including the scientific method, origin of life, the cell, energy processes, genetics, evolution, and other topics which can be applied to everyday living. 3 lecture hours 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 Environmental Science

This course is a study of biological and ecological principles and the interaction of humans with the biosphere. Population growth, technology, and the overuse and abuse of natural resources are covered in terms of their contributions toward the degradation of environmental quality. The ethical implications of how humans will deal with these environmental problems are investigated. One or two all day field trips on weekends may be required in lieu of some regularly scheduled laboratory sessions. If a student cannot attend a field trip on a weekend day, an alternate learning experience will be assigned to replace the missed field trip. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 104 A Survey of the Animal Kingdom

A one-semester survey of animals. 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 weekend 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

This course will introduce students to fundamental concepts connected with the integrated activity of the human body in relation to its environment. Each organ system of the human body is studied from the perspective of structure, processes, and regulation. The course covers an introduction to the study of anatomy and physiology, basic chemistry, cytology, histology, the integumentary system, the skeletal system, the muscular system, and the nervous system. The course will also foster in the student an attitude of scientific inquisitiveness and reasoning. Prerequisite: ENG 097. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 106 Anatomy and Physiology II

This course is a continuation of Anatomy and Physiology I and is intended to complete the two-semester sequence. The course will examine the following topics: the endocrine system, the respiratory system, the cardiovascular system, the digestive system, the urinary system, and the reproductive system. In addition, this course will introduce the student to some fundamental concepts connected with the integrated activity of the human body in relation to its environment. It will also foster an attitude of scientific inquisitiveness and reasoning. 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 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: ENG 097. Required for Biology majors. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ BIO 112 General Biology II

This course, designed and required 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: ENG 097, BIO 111, or approval of Division. 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 120 Introduction to Biology

BIO 101 without the laboratory component. This course will not fulfill a college laboratory science requirement. Division approval 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. Division approval 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. Division approval 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. Division approval 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. Division approval 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. Division approval 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. Division approval 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. Division approval 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. Division approval required. 3 lecture hours per week. 3 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 inter-relationships 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.

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 application of sport management principles. Topics include the history of sport management, management, marketing, financial concepts in sports, legal and ethical issues in sports, youth sports, college sports, professional sports, international sports, sports agency, broadcasting, facility and event management, and careers in sport management. 3 lecture hours per week. 3 credits 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 performance enhancing drug scandals of the present day. A strong emphasis is placed on the relationship between sport, society, and culture. The course also explores the rise of intercollegiate sports, the rise of women's sports, professional and amateur sports in the age of television, sports organizations confronting the issue of brain trauma and concussions, and the quest for equity in sports. 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 the influence sports have on children and young adults, violence, gender, social class, age and ability, media, politics, and race and ethnicity. Prerequisites: BSM 101, ENG 101. 3 lecture hours per week. 3 credit hours.

BSM 210 Sport and 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, 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 confronting sports at every level. Issues will be explored in light of cultural and social contexts. Topics include performance enhancing drug use in all levels of sports, the modern sports facility 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 challenges for women's professional sport leagues, media influences on sports, new media technology and its impact on sports, fantasy sports, and the significant issues of youth sports. Prerequisites: BSM 101, ENG 101. 3 lecture hours per week. 3 credit hours.

BUS • Business**BUS 101 Introduction to Contemporary Business**

This course provides an overview of all phases of business, including ownership, marketing, personnel, finance, managerial controls, and the relationship of government and business. Topics include the relationship of business to the social and economic environment in which it operates and a 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

This course explores the 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 097, if required. 3 lecture hours per week. 3 credit hours.

BUS 107 Human Resources Management

This course provides a study of the techniques of human resource management; 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 097. 3 lecture and 3 laboratory hours per week. 4 credit hours.

BUS 110 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 097. 3 lecture hours per week. 3 credit hours.

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

This course examines the function of the retailer. Topics include retail establishments and the changes in merchandising, management techniques, organizations, effective control, and profitable operation. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

BUS 137 - Salesmanship

This course provides a study of the effective methods of retail selling and the application of psychological and persuasive selling techniques. Students prepare and conduct sales presentations on an individual and group basis. Prerequisite: ENG 097. 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

This course is 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

This course provides a study of legal aspects of common business transactions, including judicial procedures, contracts, torts, crimes, and agency law. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

BUS 202 Business Law II

This course provides a study of 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 097. 3 lecture hours per week. 3 credit hours.

BUS 203 Principles of Advertising

This course is 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. This course is offered online. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

BUS 205 Principles of Finance

This course provides a study of the fundamental concepts of finance. Topics include 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

This course provides a study and evaluation of procedures and institutions involved in the movement of goods from producers to consumers. Students analyze 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

This course provides an introduction to the theory and practice of international business. Topics include 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. 3 lecture hours per week. 3 credit hours.

BUS 210 Marketing and the Global Environment

This course examines the historical foundation of cultural, political, and economic diversity and its effect on marketing. Topics include forces related to the emergence of the global marketplace, trade liberalization, advances in communications, the role of mass media in introducing the ideas and the lifestyles of other cultures, and transport technology. Prerequisites: ENG 097, BUS 101, BUS 208. 3 lecture hours per week. 3 credit hours.

BUS 290 Co-op Education Experience in Business

This course is 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. Permission of Division Dean's office. 3 credit hours.

CHE • Chemistry

▲ CHE 101 College Chemistry

This course is primarily intended for non-science majors. CHE 101 is the study of the chemical view of matter, atomic structure and theory, chemical bonding, stoichiometry, oxidation reduction, and solutions. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 105 Chemistry-Health Sciences

This course is primarily intended for students pursuing Nursing and Health Science Degrees. CHE 105 is a study of selected topics in general, organic, and biological chemistry oriented toward health sciences. Students who have not had high school chemistry are recommended to take CHE 101. Students pursuing the Bachelor's Degree in Nursing are recommended to take CHE 114. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 111 General Chemistry I

This course is the first half of a two-semester course sequence designed primarily for Science and Engineering Students. CHE 111 is a systematic study of atomic structure, chemical bonding, molecular geometry, stoichiometry, states of matter, and solutions. Students who have not had high school chemistry are recommended to take CHE 101. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 112 General Chemistry II

This course is the second half of a two-semester course sequence designed primarily for Science and Engineering Students. CHE 112 is a study of the chemical view of matter, atomic structure and theory, chemical bonding, stoichiometry, oxidation reduction and solutions. Prerequisites: CHE 111 or approval of Division. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 113 Principles of Inorganic Chemistry

This course is primarily intended for non-science majors. CHE 113 is a study of general and inorganic chemistry including elements, compounds, mixtures, atomic structure, gas laws, solutions, acids and bases, radioactivity. Students who have not had high school chemistry are recommended to take CHE 101. 3 lecture and 3 laboratory hours per week. 4 credit hours.

▲ CHE 114 Principles of Organic Chemistry and Biochemistry

This course is primarily intended for students pursuing Nursing and Health Science Degrees. CHE 114 is an introductory study of 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. Students who have not had high school chemistry are recommended to take CHE 101. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CHE 120 College Chemistry

This course is CHE 101 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Prerequisites: Division approval required. 3 lecture hours per week. 3 credit hours.

CHE 122 Chemistry-Health Sciences

This course is CHE 105 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Prerequisite: Division approval required. 3 lecture hours per week. 3 credit hours.

CHE 125 General Chemistry I

This course is CHE 111 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Division approval required. 3 lecture hours per week. 3 credit hours.

CHE 126 General Chemistry II

This course is CHE 112 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Prerequisite: Division approval required. 3 lecture hours per week. 3 credit hours.

CHE 127 Principles of Inorganic Chemistry

This course is CHE 113 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Prerequisite: Division approval required. 3 lecture hours per week. 3 credit hours.

CHE 128 Principles of Organic Chemistry and Biochemistry

This course is CHE 114 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Prerequisite: Division approval required. 3 lecture hours per week. 3 credit hours.

▲ CHE 211 Organic Chemistry I

This course is the first half of a two-semester course sequence designed primarily for Science and Engineering Students. CHE 211 is a study of the principal classes of aliphatic and aromatic compounds, types of reactions and reaction mechanisms, molecular orbital approach to bonding, and stereochemistry. Prerequisite: CHE 112 or approval of Division. 3 lecture and 6 laboratory hours per week. 5 credit hours.

▲ CHE 212 Organic Chemistry II

This course is the second half of a two-semester course sequence designed primarily for Science and Engineering Students. CHE 212 is a study of functional groups, reactions and reaction mechanisms, spectroscopic examination of organic compounds, and introductory biochemistry. Prerequisite: CHE 211 or approval of Division. 3 lecture and 6 laboratory hours per week. 5 credit hours.

CHE 221 Organic Chemistry I

This course is CHE 211 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Prerequisite: Division approval required. 3 lecture hours per week. 3 credit hours.

CHE 222 Organic Chemistry II

This course is CHE 212 without the laboratory component. This course is primarily intended for students who have completed the laboratory requirement at another institution. Students will attend the same lectures and be responsible for the same assignments (excluding laboratory) as students in the same course with laboratory. This course will not fulfill a college laboratory science requirement. Prerequisite: Division approval required. 3 lecture hours per week. 3 credit hours.

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 the instructor. Prerequisite: ENG 096 if required. 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 build on the students' knowledge of CHN 101. An emphasis in this course will be on expanding 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 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 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 the instructor. Prerequisite: CHN 111, or three years high school Chinese. 3 lecture hours per week. 3 credit hours.

CIT • Construction Engineering Technology**CIT 108 Soil Mechanics**

This course focuses on 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. The course also covers the following topics: soil composition and terminology, properties and behavioral analysis under load, site exploration and sampling techniques, an introduction to environmental soil contamination and remediation, soil reinforcement and improvement methods, bearing capacity, shallow and deep foundations, consolidation and settlement, soil structures, soil erosion/sediment control during construction and common laboratory and field testing procedures. Prerequisite: MAT 119. 2 lecture 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 hour per week. 3 credit hours.

CIT 205 Surveying

This is a course in plane surveying which includes the measurement of distances, elevations, angles and directions. Principles and field use of traditional and modern surveying instruments are covered in lecture and practiced in the laboratory and in the field. Fundamental surveying computations including the use of computers and surveying software are also covered. Prerequisites: MAT 143, MET 109. 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 096, MAT 143, and CST 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 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: Division approval required. 3 credit hours.

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 the radiography area. 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 graded course.

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 graded course.

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 graded course.

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 graded course.

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 graded course.

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 graded course.

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 graded course.

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 graded course.

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. This is a graded course.



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. This is a graded course.

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. This is a graded course.

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. This is a graded course.

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. This is a graded course.

COM • Communications**▲ COM 100 Communications Technologies**

This course provides 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. Prerequisite: ENG 096, if required. 3 lecture and 2 laboratory hours per week. 4 credit hours.

COM 101 Mass Communications

This course provides a survey of the nature of contemporary mass media. Course includes an analysis and evaluation of the role of mass media in American life. Prerequisite: ENG 096 if required. 3 lecture hours per week. 3 credit hours.

COM 102 Reporting and News Writing

This course provides instruction in gathering news and interviewing, practice in news writing. Prerequisite: ENG 096 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. Prerequisite: ENG 097 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. Prerequisite: ENG 096, if required. 2 lecture and 2 lab hours per week. 3 credit hours.

COM 106 Introduction to Television: Production and Theory

This course provides an introduction to the methods and equipment used in the production of television programs in a studio environment. This course includes 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. Students will take 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. Prerequisite: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

COM 108 Principles and Practices of Public Relations

This course introduces the student to 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

This course provides 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

This course introduces the student to use and development of multimedia and provides 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 113 Audio Production I

This course provides 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 201 Issues in Mass Media

This course provides 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 097 if required and COM 101. 3 lecture hours per week. 3 credit hours.

COM 202 Advanced Reporting and News Writing

This course 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 097, if required, COM 102 or permission of Division Dean's office. 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. 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. 3 lecture hours per week. 3 credit hours.

▲ COM 209 The Evolution of Film

This course provides 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

This course introduces students to 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

This course is 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 113. 3 lecture hours per week. 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. 3 lecture hours per week. 3 credit hours.

COM 295 Independent Study in Communications

This course provides 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.

CRJ • Criminal Justice**CRJ 101 Introduction to Criminal Justice**

This course is an introduction to the background and history of law enforcement and the origin of laws. Topics include the causes of crime, the definition of a criminal, and the critical areas of law enforcement as related to crime, public morals, and the public image. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.

CRJ 102 Police Organization and Administration

This course is a survey of police organizational principles, a review of police administration past and present with an evaluation of its future. Societal changes impacting upon the police are discussed in order to formulate strategies for dealing with trends impacting upon crime and disorder. The role of technology in modern police organization and administration is addressed. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.

CRJ 103 Introduction to Forensic Procedure

This course provides a review of the fundamental techniques used in the analysis and evaluation of physical evidence, including micro techniques and special subjects of topical interest. Laboratory is included. The analysis of physical evidence using recent developments in non-instrumental and instrumental techniques is emphasized. Prerequisite: ENG 096. 3 lecture and 3 laboratory hours per week. 4 credit hours.

CRJ 109 Correctional Administration

This course examines the theories, methods, and practices in the administration of punishment with special emphasis on the rehabilitation of the adult offender. Topics include the selection and training of personnel employed in the field and an exploration of the effort to classify inmates correctly and to reintegrate them back into society. An understanding of the social control of the offender is an integral aspect of the course. 3 lecture hours per week. 3 credit hours.

CRJ 201 Police Management Systems

This course provides a review of leadership and management principles and practices, traditional and current, and an analysis of their effectiveness and their specific application to law enforcement. The three critical activities of leadership are discussed. Through lecture and case studies the students explore: planning, communications, decision making, staffing, training, and team building. Prerequisite: ENG 096, CRJ 102. 3 lecture hours per week. 3 credit hours.

CRJ 203 Criminal Investigation

This course examines the methods of searching for truth and relevant information on criminal cases. Topics include the role of the police and criminal investigators 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. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.



CRJ 205 Police Role in the Community

This course provides a survey of police history within the larger social context. Root causes of crime and disorder are explored in order to look at contemporary police responses. Topics include a discussion of the working personality of the police officer with an emphasis on examining the relationship between the police and the community and an understanding of interpersonal relations and cultural diversity in our communities. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.

CRJ 206 Criminal Law

This course examines the intricacies of the administration of justice. Topics include the elements of common criminal status, the nature and difficulties of proof, the legal rules governing police practices and procedures, and an exploration of constitutional judicial decisions and important judicial case studies in the United States. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.

CRJ 207 Special Police Operation

This course provides a survey of terrorism and violent criminal behavior. Topics include causes of terrorism and violent crime with an emphasis on social conditions and criminal justice responses to crime/terrorism; and legal, social, and economic factors related to crime and terrorism. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.

CRJ 208 Community Supervision of the Offender

This course is a study of theories, practices and the problems of their integration into a meaningful program of supervision in the community for sentenced offenders. Topics include probation, parole, specialized programs, Halfway houses, alternative programs, and diversionary programs. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.

CRJ 223 Criminal Justice Problems in Business and Industry

This course explores the techniques and practices that assist private, commercial and public organizations, involving safety and security, and understanding their interdependency with the Criminal Justice System. Topics include special problems such as espionage, terrorism, riots, shoplifting, and pilferage. Prerequisite: ENG 096. 3 lecture hours per week. 3 credit hours.

CST • Computer Science and Technology**▲ CST 100 Introduction to Computer Algorithms**

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. Prerequisites: ENG 096, MAT 017 or MAT 019 or MAT 022. 3 lecture hours per week. 3 credit hours.

▲ CST 101 Introduction to Information Systems

This course is an introduction to computer information technology. 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, database management, telecommunications and networks, e-commerce, and management information systems. The course supports the concept of problem solving with computers via applications and the Internet. Prerequisites: ENG 096, MAT 019 or MAT 022. 3 lecture hours per week. 3 credit hours.

CST 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. Prerequisites: ENG 096, MAT 017 or MAT 019 or MAT 022. 3 lecture hours per week. 3 credit hours.

▲ CST 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 an industry standard programming language. Prerequisites: ENG 096, MAT 019 or MAT 022. 3 lecture hours per week. 3 credit hours.

▲ CST 120 The Internet

This course explores the Internet. Topics include conceptual background and online skills needed to become Internet literate, survey of emerging technologies on the Internet, ethics and etiquette of the Web, network protocols, basic UNIX commands, creating web pages, and using the Web to locate, transfer, and publish information. Prerequisites: ENG 096, MAT 019 or MAT 022. 3 lecture hours per week. 3 credit hours.

CST 122 Web Application Development

This course introduces students to Web application development. Students learn elements of HTML (HyperText Markup Language) and its use in creating Web applications. Students will learn to add functionality to Web pages/sites using JavaScript and DHTML (Dynamic HTML). In addition, students will be taught the basics of XML (Extensible Markup Language) and software packages that automate the Web design and development process. Topics include Web page structures, tables, frames, forms and validation, multimedia Web pages, scripting languages, and cloud storage. Prerequisites: ENG 096, MAT 019 or MAT 022. 3 lecture hours per week. 3 credit hours.

CST 130 Visual Basic Programming

In this course, students will build computing applications using Visual Basic, an object-oriented, event-driven programming language. Topics include graphical user interface design and implementation, file input and output (I/O), forms, menu bars, buttons, dialog and list boxes, array of controls, methods (subroutines), debugging techniques, and error-handling routines. Prerequisites: ENG 096, MAT 119. 4 lecture hours per week. 4 credit hours.

▲ CST 161 Computer Programming Fundamentals

This course introduces students to the logic used to develop solutions to common problems in the computer science field using a contemporary high-level programming language such as Python. These step-by-step detail solutions are called algorithms and serve as the basic solution to most computer science problems. Topics include number systems, computer instructions, program logic, secure coding techniques, file management, and foundational concepts in computer science. Problem solving, critical thinking, and programming techniques are emphasized throughout the course. Prerequisites: ENG 096, MAT 019/MAT021 or MAT 022. 4 lecture hours per week. 4 credit hours.

CST 162 Computer Algorithms

In this course, students will learn algorithm development and program design using an object-oriented language such as Java. Topics include logical operators, control structures, program testing and debugging, secure coding techniques, documentation, user-defined methods and classes, parameter passing, graphical user interfaces, one and two-dimensional arrays, simple sorting and searching, graphs of functions, and string manipulation. Prerequisites: ENG 096, MAT 119, CST 161. 4 lecture hours per week. 4 credit hours.

CST 175 Networking Fundamentals

This course covers the basics of networking. 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, hardware and software protocols, internetworking, telecommunications, and security. Prerequisites: CST 101 or CST 120 or CST 161. 3 lecture hours per week. 3 credit hours.

CST 202 Systems Analysis and Design

This course is a general study of concepts related to systems analysis and design and the role of the systems analyst. Topics include the secure systems development life cycle, feasibility study, data flow diagrams, data dictionaries, reports, UML diagrams, and other documenting system specifications. Prerequisites: CST 101, CST 130 or CST 161. 3 lecture hours per week. 3 credit hours.

CST 204 Database Management Systems

This course concentrates on the principles, design, implementation, maintenance, and applications of database management systems. Topics include security, privacy, normalization, data modeling, data validation, user forms, reports, and Web connectivity. The structured query language, SQL, will be used to process an industry-standard relational database management system. Prerequisites: CST 101, CST 130 or CST 161. 3 lecture hours per week. 3 credit hours.

CST 210 Principles of Cybersecurity

This course introduces the student to the field of cybersecurity. It presents a comprehensive survey of the breadth of cybersecurity. This includes local host, network, web, and databases that are prone to attack. The student will focus on the identification of security threats and countermeasures that can be taken to make these systems more secure. Students will also learn about the legal, compliance, ethical and professional issues in cybersecurity. Prerequisites: ENG 097, MAT 019 or MAT 022. 3 lecture hours per week. 3 credit hours.

CST 212 Business and Computer Applications Technology

This course provides a strong foundation necessary to build mobile applications for Android devices. This course builds upon key programming concepts including variables, conditional statements, lists, and arrays, and gives the confidence and technical skills needed to create fully-functional Android apps. Prerequisites: CST 115, CST 130 or CST 161. 3 lecture hours per week. 3 credit hours.

CST 222 Computer Organization, Architecture, and Assembly Language

This course is an introduction to the organization and architecture of a computer system. The course will focus on machine representation of instructions and data through the study of the digital-logic level, machine level, assembly level, and operating system level. Assembly language programming is used as a means to introduce computer architecture. Topics include processors, instruction sets, addressing techniques, subroutines, digital logic, number systems, memory dumps, registers, and the internal data representation. Prerequisite: CST 162. 4 lecture hours per week. 4 credit hours.

▲ CST 226 Introduction to Operating Systems

This course introduces the theory and function of contemporary operating systems. The course is not limited to a single operating system but rather to general operating systems concepts. Topics include the four main managers found in every operating system: memory management, processor management, device management, and file management. Also introduced are network organization concepts, operating system security, and management of network functions. Prerequisite: CST 162. 4 lecture hours per week. 4 credit hours.

CST 261 Data Structures

This course investigates abstract data types (ADTs), recursion, algorithms for searching and sorting, and basic algorithmic analysis using an object-oriented language. Data structures to be covered include, but not limited to strings, arrays, lists, stacks, queues, trees, and heaps. Students also will explore the use of a variety of data structures and useful algorithms, such as searching and sorting, in the context of modeling and simulation. Prerequisite: CST 162. 4 lecture hours per week. 4 credit hours.

CST 298 Special Topics in Computer Science

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 Division Dean's office required. 3 credit hours.

DBI • Deaf-Blind Interpreting**DBI 210 Deaf-Blind Interpreting and Interpreting Strategies**

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. 3 hours per week. 3 credit hours.

DENA • Dental – Rutgers**DENA 1149 Introduction to Clinical Dental Assisting**

This course is designed to educate the student in the identification, care and use of dental instruments. Students will be exposed to tray set-ups and instrument sequencing for various dental procedures that will allow the student to utilize 4-handed assisting. Topics such as dental terminology and charting procedures, infection control, instrumentation and maintenance of equipment will also be discussed. Selected procedures in expanded functions will also be covered. 30 lecture hours. 45 lab hours. 3 credit hours. This course is only available to students who have been accepted into a Rutgers program. For the most current course description, visit <http://shrp.rutgers.edu>

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 Rutgers program. For the most current course description visit <http://shrp.rutgers.edu>



DENA 1278 Pre-Clinical Assisting

The clinical dental assisting experience has been designed to incorporate pre-clinical laboratory skills, including the use of dental materials, dental radiology and expanded functions, as delegated in the New Jersey State Dental Auxiliary Practice Act. Supervised clinical rotations in all general and specialty areas of dental practice have been scheduled at various clinical sites in order to gain practical experience assisting dental students and practitioners in providing care to patients as a dental team. Clinical proficiency in clinical assisting is the focus of the course. The students will actively participate in all aspects of dental assisting including experiences in sterilization, front office, laboratory and chair-side activities. 24 clinical hours. 0 credit hours. This course is only available to students who have been accepted into a Rutgers program. For the most current course description, visit <http://shrp.rutgers.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 expanded 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. 300 clinical hours. 4 credit hours. This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.edu>

DENH • Dental – Rutgers**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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 audio-visual 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 practicum hours. 3 credit hours. This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 practicum hours. 3 credit hours. This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 practicum hours. 3 credit hours. This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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. 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. 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 ARDMS 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**

This is a one-semester survey course on overall macro- and micro-economic issues. On the micro side, topics will include the operations of a market economy using the fundamental principles of supply and demand, production costs and basic market models of competition, monopolistic competition, oligopoly and monopoly. On the macro side, topics will include the determination of national income, money and the financial system, the interaction of monetary and fiscal policies to accomplish economic objectives. Students will be able to understand the overall functioning of the economy. Prerequisite: ENG 087. 3 lecture hours per week. 3 credit hours.

▲ ECO 201 Principles of Economics I

This is a principles of macroeconomics course, covering the determination of national income and output, the economic problems of GDP growth, unemployment, price instability, and national deficits and debt. Other topics include aggregate demand and aggregate supply, other aggregate sectors of the economy, money, banking, the financial system, fiscal and monetary policies. Students will be able to evaluate and measure the macroeconomic health of the nation in relation to unemployment, inflation, and other macroeconomic indicators and in the context of a global economy. Prerequisites: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

▲ ECO 202 Principles of Economics II

This is a principles of microeconomics course which will provide students with an introduction to the theory of the firm and consumer behavior, rooted in the fundamental principles of demand and supply. Other topics will include cost analysis and profit maximization under various market models, the pricing of resources and related contemporary issues concerning resources like labor capital, land (natural resources) and entrepreneurship. Students will be able to analyze the behavior of a firm as well as price determination. Prerequisites: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

ECO 205 Money and Banking

The main objective of this course is to develop the framework for examining and understanding the evolution and functions of money and the financial system. Other topics will include analysis of credit and theory and practice of bank operations, the Federal Reserve System, foreign exchange, and recent banking developments. Prerequisites: ECO 201 or ECO 202. 3 lecture hours per week. 3 credit hours.

ECO 207 Urban Economics

This course provides students with an introduction to the 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: ECO 201 or ECO 202. 3 lecture hours per week. 3 credit hours.

ECO 209 The International Economy

This course introduces students to international trade theory and policy. Topics will include the principles and importance of trade, the basis of and gains from trade, balance of payments, trade restrictions (barriers) and commercial policy, foreign exchange markets, multinational and capital flows, trade liberalization via multilateral trade agreements (Examples: NAFTA, the EU, the Euro, and WTO). Students will obtain the analytical skills and vocabulary needed in international trade, commercial, and financial institutions. Prerequisite: ECO 201. 3 lecture hours per week. 3 credit hours.

EDU • Education

EDU 205 Educational Psychology

This course involves the application of psychology to the processes of teaching and learning. 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 Dean's office prior to course registration. 3 credit hours. Prerequisite: EDU 205 or Permission of the Division Dean's office.

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 096. Co-requisite: 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 096. Co-requisite: 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. Prerequisite: EET 213. Co-requisite: EET 211. 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 270 Photovoltaic (PV) Systems

The course covers the basics of Photovoltaic (PV) technology and systems. The curriculum includes the study of sun and earth geometries and relationships, solar energy, PV terminology, equipment and processes, site assessment, system design, the electrical principles of solar systems, the operation and installation of critical components, troubleshooting, and PV economics. The hands-on laboratory component will introduce the student to safety, PV tools, PV measurements and wiring required in building a photovoltaic array. The course is designed to prepare the student to take an industry-based entry-level PV Systems exam. Prerequisite: EET 101. 3 lecture and 3 laboratory hours per week. 4 credit hours.

EET 290 – Co-op Education Experience in Electronics/Electromechanical Technology

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: Division approval required. 3 credit hours.

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 097. 3 lecture hours per week. 3 credit hours.

EGG 107 Understanding Sustainability and 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 097, MAT 022, or approval of Division. 3 lecture hours per week. 3 credit hours.

EGG 111 Engineering and 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. Co-requisite: 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. 3 lecture hours per week. 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. 3 lecture hours per week. 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. 3 lecture hours per week. 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. 3 lecture hours per week. 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, or Division Dean's office. 3 lecture hours in a 5-week session. 1 credit hour.



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.

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 106 Emergency Medical Technician

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, ASHL, or National Safety Council. 9 lecture hours per week. 3 clinical lab hours per week. 10 credit hours.

ENG • English

ENG 081 Accelerated Introduction to College Reading II

This course is an accelerated version of the last course in a multi-level sequence designed to help the under-prepared student to improve reading skills and successfully complete freshman composition. Students in English 081 must take the designated paired English 101 course. Prerequisites: Satisfactory Placement Test scores on the Reading, Essay and Sentence Sense tests. Placement into English 101 course. 2 lecture hours per week. 2 institutional credit hours.

ENG 087 Introduction to Language Arts

This course is an introduction to Language Arts and 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 091 Accelerated Introduction to College Writing II

This course is an accelerated version of the last course in a multi-level sequence designed to help the under-prepared student to improve writing skills and successfully complete freshman composition. Students in English 091 must take the designated paired English 101 course. Prerequisites: Satisfactory Placement Test scores on the Reading, Essay, and Sentence Sense tests. Placement into English 101 course. 2 lecture hours per week. 2 institutional credit hours.

ENG 096 Introduction to College Reading and Writing I

This course is a middle-level course designed to help students whose reading ability indicates the need for concentrated involvement in the reading process, particularly to improve comprehension, critical reading, and vocabulary. This course is also designed to help students whose writing indicates the need for concentrated attention to and practice in the process of language use. Particular attention is given to producing quality compositions. Prerequisites: Successful completion of English 087 or Placement into ENG 096. 6 lecture hours per week. 6 institutional credit hours.

ENG 097 Accelerated Introduction to College Reading and Writing II

This course is an upper level course designed to help students whose reading and writing abilities indicate the need for concentrated involvement in the reading process, particularly to improve comprehension, critical reading and vocabulary, and in the writing process, particularly to learn and practice the conventions of college-level writing. Prerequisites: ENG 096, if required, Satisfactory Placement Test scores on the Reading, Essay and Sentence Sense tests. 6 lecture hours per week. 6 institutional credit hours.

▲ ENG 101 English Composition I

This course is the 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 097, if required. 3 lecture hours and per week. 3 credit hours.

▲ ENG 102 English Composition II

This course 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. Prerequisite: ENG 101 or ENG 112. 3 lecture hours per week. 3 credit hours.

ENG 111 English Composition for Speakers of Other Languages I

This course is designed as a writing course for students whose first language is not English. The sequence of ENG 111 and ENG 112 serves as a substitute for ENG 101 for which the student receives three credits. The other three credits counts towards humanities/language elective credits. English 111 improves students' skills as successful academic writers. The focus of this course is to teach students the necessary steps involved in writing a research paper, including summarizing, paraphrasing, citing, and writing a bibliography using MLA style. Attention is given to the cultural implications of thought patterns, organization, and academic writing conventions in English. Pre-requisite: ESL 067 or 097 or ESL placement test. 3 lecture hours per week. 3 credits

▲ 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 as a substitute for ENG 101 for non-native speakers of English. Prerequisite: ENG 111. 3 lecture hours per week. 3 credit hours.

▲ ENG 122 Introductory Technical and Business Writing

This course is the 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. Prerequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

▲ ENG 128 The Dynamics of Communication

This course involves 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

This course provides instruction and practice in oral communication. The 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

This course includes 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

This course includes a survey of the major periods in the development of Western literature from the Renaissance to the post-modern 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 205 British Literature I

This course includes a 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 206 British Literature II

This course includes a 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 207 American Literature I

This course includes a survey of major works in American Literature from Colonial diarists to Whitman. Prerequisite: ENG 102. 3 lecture hours per week. 3 credit hours.

▲ ENG 208 American Literature II

This course includes a survey of major works in American Literature from Dickinson to the present. Prerequisite: ENG 102. 3 lecture hours per week. 3 credit hours.

▲ ENG 209 World Literature I

This course includes 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 210 World Literature II

This course includes 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. 3 lecture hours per week. 3 credit hours.

ENG 213 Advanced Writing

This course is designed to develop and refine the skills learned in English 101 and 102 or 122 that are essential for more advanced and extended writing required in academic, professional, and other settings. The course covers source evaluation, literary analysis, and exposition, along with a variety of other genres of communication. The course requires students to compose extended and revised writing that culminates with a final project. Prerequisite: ENG 102 or ENG 122. 3 lecture hours per week. 3 credit hours.

ENG 215 Creative Writing

This course provides 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 instructor's permission. 3 lecture hours per week. 3 credit hours.

▲ ENG 216 Contemporary Literature

This course includes 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 217 Literature and the Arts I

This course includes 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, HIS 101-102 or permission of instructor. 3 lecture hours per week. 3 credit hours.

▲ ENG 218 Literature and the Arts II

This course includes 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, HIS 101-102. 3 lecture hours per week. 3 credit hours.

▲ ENG 227 African American Literature I

This course includes 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 228 African American Literature II

This course includes 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 1920's to the resurgent cultural self-consciousness of the 1960s to the present proliferation of African American literature. Prerequisite: ENG 102. 3 lecture hours per week. 3 credit hours.

ENG 229 Introduction to Poetry

This course includes 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. 3 lecture hours per week. 3 credit hours.

ENG 230 American Poetry

This course includes 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 235 Introduction to Shakespeare

This course includes 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. 3 lecture hours per week. 3 credit hours.

▲ ENG 245 Women in Literature

This course includes 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. 3 lecture hours per week. 3 credit hours.

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 placement testing, students enter an appropriate ESL level of instruction commensurate with their abilities. Upon completing each course, there is an exit test, to assess a student's proficiency. Upon completion of Level 6, students take ENG 111-112, a two-semester sequence of college composition for ESL students (equivalent to ENG 101), along with other courses.

▲ ENG 247 Women Authors

This course includes 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.

ESL • English as a Second Language

ESL 037 Intermediate I Grammar/Writing

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The purpose of this course is to develop the students' ability to write academic compositions using intermediate level grammar and to improve fluency in written and oral communication. Prerequisite: Placement Test. Co-requisite: ESL 038. 6 lecture hours per week. 6 institutional credits.

ESL 038 Intermediate I Reading/Listening/Speaking

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The purpose of this course is to improve students' ability in academic reading, listening, and speaking in academic and US cultural contexts. Prerequisite: ESL Placement Test. Co-requisite: ESL 037 or ESL 027. 5 lecture hours per week. 5 institutional credits.

ESL 047 Intermediate II Grammar/Writing

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The purpose of this course is to develop the students' ability to write academic compositions using intermediate level grammar and to improve fluency in written and oral communication. Prerequisite: ESL 037 or ESL Placement Test. Co-requisite: ESL 048. 6 lecture hours per week. 6 institutional credits.

ESL 048 Intermediate II Reading/Listening/Speaking

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The purpose of this course is to increase students' ability to work with academic reading and listening texts. Emphasis will be placed on authentic texts and academic discussions. Prerequisite: ESL 038 or ESL Placement Test. Co-requisite: ESL 047 or ESL 037. 5 hours per week. 5 institutional credits.

ESL 057 Advanced I Grammar/ Writing

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. This course teaches students to write clear, organized essays in a variety of rhetorical styles. The course presents and develops the grammar and editing skills required to express ideas clearly. Prerequisites: ESL 047 or ESL 087, ESL 038, or ESL Placement Test. 6 lecture hours a week. 6 institutional credits.

ESL 058 Advanced I Reading/Listening/Speaking

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The focus is on reading comprehension for academic purposes. Additionally, this course continues to develop level-appropriate conversation and listening skills, utilizing academic contexts. The purpose of this course is to enhance students' language proficiency and academic skills. Prerequisites: ESL 048 or ESL 088, and ESL 037 or ESL 087, or Placement Test. 5 lecture hours a week. 5 institutional credits.

ESL 067 Advanced II Grammar/ Writing

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. This course teaches students to write clear, organized essays in a variety of rhetorical styles, incorporating from academic sources. The course presents and develops advanced-level grammar and editing skills required to express ideas fluently and accurately. Prerequisites: ESL 057, ESL 087, or ESL Placement Test. 6 lecture hours per week. 6 institutional credits.

ESL 068 Advanced II Reading/ Listening/Speaking

This course is part of a multi-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. This course focuses on reading comprehension and fluency for academic purposes with an emphasis on responding to narrative and expository texts. Additionally, this course develops advanced level conversation and listening skills in academic contexts. The goals are to help students enhance their proficiency in reading, speaking, and listening in order to succeed at the college level. Prerequisite: ESL 058, ESL 088, or ESL Placement Test. 5 lecture hours per week. 5 institutional credits.

ESL 073 Conversation/Pronunciation II

This course provides instruction in the intermediate aspects of pronunciation, stress, rhythm, and intonation of spoken American English. It expands communication skills in a conversational setting and builds fluency. Access to a computer with Internet and sound recording capabilities, and a headphone w/ microphone for recording is required either at home or in the ALC. This course meets the needs of intermediate students of English as a Second Language. Prerequisite: ESL Placement Test or by recommendation of professor. 2 lecture hours per week. 2 institutional credit hours.

ESL 074 Conversation/Pronunciation III

This course provides instruction in the advanced aspects of pronunciation, stress, rhythm, and intonation of spoken American English. This course reinforces communication skills in a conversational and academic setting. The goal is to expand aural/oral intelligibility and fluency. Access to a computer with Internet and sound recording capabilities, and a head-phone w/ microphone for recording is required either at home or in the ALC. This course meets the needs of advanced students of English as a Second Language. Prerequisite: ESL 047 and ESL 048, or by recommendation of professor. 3 lecture hours per week. 3 institutional credit hours.

ESL 077 Accelerated Beginning Grammar/Writing

This course is an accelerated beginning-level ESL Level 1 and Level 2 Grammar/Writing course which is part of the second level of a six level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The emphasis of this course is to develop the students' reading/listening/speaking skills in academic and U.S. cultural contexts. The goal is to help students enhance their language fluency in a more intensive setting. Prerequisites: Placement Test and permission of instructor. Co-requisites: ESL 078 and ESL 079. 6 lecture hours per week. 6 institutional credit hours.

ESL 078 Accelerated Beginning Reading/Listening/Speaking

This course is an accelerated beginning-level ESL Level 1 and Level 2 Reading/Listening/Speaking course which is part of the second level of a six-level English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The emphasis of this course is to develop the students' reading/listening/speaking skills in academic and U.S. cultural contexts. The goal is to help students enhance their language fluency in a more intensive setting. Prerequisites: ESL Placement Test and permission of instructor. Co-requisites: ESL 077 and ESL 079. 6 lecture hours per week. 6 institutional credit hours.

ESL 079 Beginning Individualized Language Learning

This course is a combined Level 1 and Level 2 individualized course, which enhances the students' ability to develop and follow an independent learning plan with faculty assistance utilizing online and available software sources to address their individual language needs and develops the students' ability to apply effective CALL learning strategies to complete their individualized language learning modules. The goals are to help students increase their language proficiency in order to succeed at the college level. Prerequisites: ESL Placement Test and permission of instructor. Co-requisites: ESL 077 and ESL 078. 1 lecture hour per week. 1 credit hour.

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 057 and ESL 058 or ESL Placement Test. Co-requisites: BUS 101, ESL 067. 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 057 and ESL 058 or ESL Placement Test. Co-requisites: PSY 101, ESL 067. 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 057, ESL 058 or ESL Placement Test. Co-requisites: ESL 067 and BIO 006. 3 lecture hours per week. 3 institutional credit hours.

ESL 087 Accelerated Intermediate Grammar/Writing

This course is an accelerated Levels 3/4 intermediate grammar/writing English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The purpose of this course is to introduce and develop the students' ability to write academic compositions. Students will use intermediate level grammar and editing skills to improve fluency and clarity needed for written and oral communication. Prerequisite: ESL 077 or ESL Placement Test, and permission of instructor. Co-requisites: ESL 088 and ESL 089. 6 lecture hours per week. 6 institutional credits.

ESL 088 Accelerated Intermediate Reading/Listening/Speaking

This course is an accelerated Levels 3/4 intermediate academic reading, listening, speaking English for Academic Purposes (EAP) sequence designed for students whose native language is not English. The purpose of this course is to introduce academic reading and listening texts. Emphasis will be placed on authentic texts and academic discussions. Prerequisite: ESL 078 or ESL Placement Test, and permission of instructor. Co-requisites: ESL 087 and ESL 089. 6 hours per week. 6 institutional credits.

ESL 089 Intermediate Individualized Language Learning

This is an accelerated Level 4 individualized course which enhances the students' ability to develop and follow an independent learning plan utilizing online sources to address their individual language needs. The purpose of this course is to develop the students' ability to apply effective CALL learning strategies while completing their individualized language learning modules. Prerequisite: ESL 077, or ESL Placement Test, and permission of instructor. Co-requisites: ESL 087 and ESL 088. 1 lecture hour per week. 1 institutional credit hour.

ESL 097 Accelerated Advanced ESL Grammar/Writing

This course is an accelerated ESL Level 5 and Level 6 Grammar/Writing. This course improves the students' ability to write academic essays in a variety of rhetorical styles that are clear and organized expressions of ideas. The emphasis is on responding to academic texts/videos, paraphrasing, and summarizing in their essays. Additionally, this course develops the students' ability to use advanced level grammar and editing skills needed for clarity in writing. The goals are to help students enhance their language proficiency in order to succeed at the college level. Prerequisites: ESL 047 and ESL 048 or ESL 087 and ESL 088, and permission of instructor. Co-requisites: ESL 098 and ESL 099. 2 hours, 40 minutes, twice a week. 6 institutional credit hours.



ESL 098 Accelerated Advanced ESL Reading/ Academic Listening and Speaking

This course is an accelerated ESL Level 5 and Level 6 Reading/Academic Listening and Speaking. This course focuses on reading comprehension and fluency for academic purposes. The emphasis is on responding to narrative and expository texts. Additionally, this course develops advanced level conversation and listening skills, utilizing academic contexts. The goals are to help students enhance their language proficiency in order to succeed at the college level. Prerequisites: ESL 047 and ESL 048 or ESL 087 and ESL 088, and permission of instructor. Co-requisites: ESL 097 and ESL 099. 2 hours, 40 minutes, twice a week. 6 credit hours.

ESL 099 Advanced ESL Individualized Language Learning

This course is a Level 6 individualized course, which enhances the students' ability to develop and follow an independent learning plan utilizing online sources to address their individual language needs and develops the students' ability to apply effective CALL learning strategies to complete their individualized language learning modules. The goals are to help students increase their language proficiency in order to succeed at the college level. Prerequisites: ESL 047 and ESL 048 or ESL 087 and ESL 088, and permission of instructor. Co-requisites: ESL 097 and ESL 098. 55 minutes per week. 1 institutional credit.

FIA • Fine Arts**FIA 103 Fundamentals of Music**

This course focuses on 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

This course focuses on 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

This course provides an 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

This course 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

This course is 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

This course provides a 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

This course provides an 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

This course offers an 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

This is a lecture course with supplemental visual presentation 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

This course offers 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

This course offers 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

This course offers 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

This course offers a 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 122 Introduction to Film Photography

This course provides 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 123 Introduction to Color Film Photography

This course offers 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 122. 3 lecture hours per week. 3 credit hours.

FIA 125 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. 3 lecture hours per week. 3 credit hours.

FIA 127 Introduction to Acting

This course offers basics of voice, movement, and interpretation. Course includes 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 128 Introduction to Illustration

This course is 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. 3 lecture hours per week. 3 credit hours.

FIA 130 Introduction to Graphic Design

This course is 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. 3 lecture hours per week. 3 credit hours.

▲ FIA 132 Introduction to Drama

This course offers 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. 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 222 Advanced Black-and-White Film Photography

This course is 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 122. 3 lecture hours per week. 3 credit hours.

FIA 225 Advanced 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. Prerequisite: FIA 125. 3 lecture hours per week. 3 credit hours.

FIA 227 Advanced Acting

This course offers advanced work on developing voice, body, and imagination as components of the actor's "instrument". Course includes discovering styles suitable for works from different periods and the relationship between the actor and the text. Course also includes an examination of tradition and techniques of the principal modes of theater: tragedy, comedy, realism, fantasy, and farce. Prerequisite: FIA 127. 3 lecture hours per week. 3 credit hours.

FIA 228 Advanced Illustration

This course is 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 128. 3 lecture hours per week. 3 credit hours.

FIA 230 Advanced Graphic Design

This course is 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 130. 3 lecture hours per week. 3 credit hours.

▲ FIA 232 Fundamentals of Drama

This course offers a study of classics from the modern theater both as "text" and "event." Course includes 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. 3 lecture hours per week. 3 credit hours.

FRE • French**▲ FRE 101 Beginning French I**

This course includes development of the fundamentals skills of understanding, speaking, reading, and writing. Listening practice is 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 the instructor. Prerequisite: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

▲ FRE 102 Beginning French II

This course is 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 the instructor. Prerequisite: FRE 101 or two years high school French. 3 lecture hours per week. 3 credit hours.

▲ FRE 111 Intermediate French I

This course offers 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. This course is 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

This course is 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)

This course includes 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

This course includes 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

This course is a continuation of FRE 121. Prerequisite: FRE 121. 3 lecture hours per week. 3 credit hours.

FRE 215 History of French Film

This course offers 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 Division Dean's office. 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 096 if required. 3 lecture hours per week. 3 credit hours.

FST 103 Fire Protection

This course provides an introduction to general aspects of fire protection. Topics include 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

This course provides a study of the basic principles of fire prevention and inspection with emphasis on the recognition of fire hazards in commercial and 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 096 if required. 3 lecture hours per week. 3 credit hours.

FST 106 Fire Fighting Tactics

This course provides 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

This course provides professional fire and safety personnel with an understanding of the hazards found in industry and techniques used to control them. Topics include 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 firefighters 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. Prerequisite: ENG 096 if required. 3 lecture hours per week. 3 credit hours.

FST 109 Fire Protection Systems

This course provides an 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. Prerequisite: ENG 096 if required. 3 lecture hours per week. 3 credit hours.

FST 111 Fire Causes and Detection

The course provides students 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. Prerequisite: ENG 096 if required. 3 lecture hours per week. 3 credit hours.

FST 112 Emergency Rescue Operations

This course provides students with instruction in various aspects of rescue operations. Topics include responsibilities of the officer in command, the use of specialized rescue tools and equipment, problems of vehicle rescue, and techniques for handling casualties. Prerequisite: ENG096, if required. 3 lecture hours per week. 3 credit hours.

FST 113 Fire Department Organization and Management

The course provides students 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 096 if required. 3 lecture hours per week. 3 credit hours.

FST 114 Legal Aspects of Fire Protection

This course provides 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 provides an understanding of all aspects of fire insurance with a major emphasis on 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

This course provides a study of the history and development of fire safety codes, with an emphasis on the nature and scope of legal statutes and related codes in fire protection control. Prerequisite: ENG 096 if required. 3 lecture hours per week. 3 credit hours.

FST 119 Incident Command

This course provides a study of the command and control of operations at major incidents or disasters. The role of the fire-ground 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

This course provides 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. Prerequisite: ENG 097. 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. Prerequisite: ENG 097. 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. Prerequisite: ENG 097. 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, CST 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 develop 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. 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. Co-requisite: ENG 101, or permission of Division Dean's office. 3 lecture hours per week. 3 credit hours.

GER • German**▲ GER 101 Beginning German I**

This course includes development of the fundamental skills of understanding, speaking, reading and writing. Listening practice is available. Media are incorporated into classroom experience. Native speakers of German must get approval of the instructor. Prerequisite: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

▲ GER 102 Beginning German II

This course is a continuation of GER 101. Media are incorporated into classroom experience. Native speakers of German must get approval of the instructor. Prerequisite: GER 101 or two years high school German. 3 lecture hours per week. 3 credit hours.



GER 105 Conversational German I

This course includes 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. This course fulfills one semester of the foreign language requirement. Not open to native German speakers. Prerequisite: ENG 097 if required. 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. Division approval 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. Division approval required. 3 lecture hours per week. 3 credit hours.

GOV • Government**▲ GOV 105 Introduction to Contemporary Government and Politics**

This course offers an introduction to the basic concepts of government and politics through an analysis of current events. It is designed to help prepare students for sophomore level courses in government. The course covers the basics of research for term papers in political science. Prerequisite: ENG 087. 3 lecture hours per week. 3 credit hours.

▲ GOV 201 American Government and Politics

This course provides a comprehensive analysis of American political institutions on the federal, state, and local levels. Topics covered include the U.S. Constitution, Federalism, public opinion, political parties, elections, pressure groups, and the role of the citizen in the American Political process. Prerequisite: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

▲ GOV 202 American National Government

This course provides a comprehensive analysis of the organization, functions, and administration of the American national government. Topics include the Presidency, Congress, Judiciary, civil rights and civil liberties, constitutional law, and domestic and foreign policy. Prerequisite: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

GOV 203 Urban Government and Politics

This course provides an introduction to urban government and politics. It looks at the political structures, forces and issues that affect the urban community. Topics include machine politics, the politics of reform, the service challenge, and civil disorders. Prerequisite: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

GOV 204 Public Administration

This course provides an introduction to one of the main subfields of political science. It analyzes the government's utilization of human and material resources in developing and implementing public policy. The concepts covered include bureaucracy, leadership, decision-making, human resources, and fiscal management. Prerequisite: ENG 097 if required. 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 097 if required. 3 lecture hours per week. 3 credit hours.

▲ GOV 207 International Politics

This course offers an introduction to the international relations subfield of the academic discipline of "political science." It is 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: GOV 201 or GOV 202. 3 lecture hours per week. 3 credit hours.

GOV 208 New Jersey Government and Politics

This course provides an introduction to State Government in New Jersey. It is a survey course within a subfield of political science. It examines the structure and functions of state government, the political subdivisions of the State, politics, and public policy issues. Prerequisite: ENG 097 if required. 3 lecture hours per week. 3 credit hours.

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 if required. 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 c. 1600. It covers the development of the Greek, Roman, Medieval, and Early Modern civilization. Political, economic, social, religious, and cultural factors are considered. Prerequisite: ENG 097. 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, the World Wars, totalitarianism, the Cold War, and the forming of a new global civilization. Political, economic, social, religious, and cultural factors are considered. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 103 Introduction to World History I

This course is a study of the major elements of world history from ancient times to 1500 with attention 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. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 104 Introduction to World History II

This course is a study of the major elements of world history from 1500 to the present with attention to the Protestant Reformation, Absolutism, the rise of Enlightenment, 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. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 105 Afro-American History I

This course is 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 permission of the Division Dean's office. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 106 Afro-American History II

This course is 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 permission of the Division Dean's office. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 201 United States History to 1865

This course is a survey of U.S. history from its colonial foundations to the Civil War with a focus on the major political, economic, social, and intellectual developments of the period. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 202 United States History Since 1865

This course is a survey of U.S. history from Reconstruction to the present with a focus on the major political, diplomatic, economic, social, and intellectual developments of the period. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

HIS 205 British History from 1600 to the Present

This course is a study of major political, economic, social and cultural events and issues occurring 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 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 209 Twentieth Century European History

This course examines 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. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ HIS 215 The American Experience in the Twentieth Century

This course examines 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. Prerequisite: ENG 097 3 lecture hours per week. 3 credit hours.

▲ 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. Prerequisite: ENG 097 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. Prerequisite: ENG 097 3 lecture hours per week. 3 credit hours.

HIS 281 The Era of the American Revolution

This course 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 097 3 lecture hours per week. 3 credit hours.

HRS • Honors

▲ HRS 103 Honors Seminar in Cross-Cultural Study

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, Peace Studies, Race and Ethnicity in American Culture, Religious Fundamentalisms in the Modern World, U.S. Immigrant Cultures, Contemporary World Film. To promote closer student/faculty collaboration and encourage independent learning, the class is conducted in a seminar format, emphasizing in-depth discussion and higher level thinking skills in an active learning environment. Prerequisites: A minimum GPA of 3.4, 12 credits completed, and permission of the Dean of American Honors. 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 perspective 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, The Psychology of Advertising, Film and Society. To promote closer student/faculty collaboration and encourage independent learning, the class is conducted in a seminar format, emphasizing in-depth discussion and higher level thinking skills in an active learning environment. Prerequisites: A minimum GPA of 3.4, 12 credits completed, and permission of the Dean of American Honors. 3 lecture hours per week. 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 097 if required. 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 290 Co-op Education Experience 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 205 and HSM 220. 3 credit hours.

HUD • American Sign Language and 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. Prerequisites: HUD 105, ASL 202 and ASL 208 or permission of the Division Dean's office. 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. Co-requisites: ASL 103 and ASL 104. 1 lecture hour 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 the Division Dean's office. 3 lecture hours per week. 3 credit hours.

HUD 106 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. 3 lecture hours per week. 3 credit hours.

HUD 108 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 and demonstration of proficiency by examination. 3 lecture hours per week. 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 the Division Dean's office. 1 lecture hour per week. 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 the Division Dean's office. 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. 2 lecture 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 106, HUD 108 and HUD 215, demonstration of proficiency via examination and permission of the Division Dean's office. 1 lecture hour per week. 3 credit hours.

HUS • Human Services**HUS 101 Community Resources in Human Services**

This course provides 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 201 Co-op Education Experience in Human Services

This course is a 90-hour field placement of the student as an observer-participant in two or more human service facilities/agencies. The course provides students 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. Division approval required. Prerequisite: HUS 101. 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. Co-requisite: Participation in Walt Disney College Program. 3 lecture 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

This course includes development of the fundamentals skills of understanding, speaking, reading, and writing. Listening practice is available. Media are incorporated into the classroom experience. Native Italian speakers must get approval of the instructor. Prerequisite: ENG 096 if required. 3 lecture hours per week. 3 credit hours.

▲ ITA 102 Beginning Italian II

This course is a continuation of ITA 101. Media are incorporated into the classroom experience. Native Italian speakers must get approval of the instructor. Prerequisite: ITA 101 or two years high school Italian. 3 lecture hours per week. 3 credit hours.

▲ ITA 111 Intermediate Italian I

This course offers review of fundamental skills of understanding, speaking, reading, and writing. This course is 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

This course is 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)

This course includes 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 Modern Language or Fine Arts. 3 credit hours.

ITA 215 History of Italian Film

This course includes 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. This course 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 Division Dean's office. 3 lecture hours per week. 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. 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. 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. 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. 3 lecture hours per week. 3 credit hours.

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. 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 credit hours.

LGL 215 Law Office Technology

This course provides an overview of the technology used to manage a law practice. Students will learn to use various software applications commonly used in law offices for docket and case management, billing and time management, litigation support, word processing, and general office organizational tasks. For some assignments, students will need access to a personal computer that utilizes a Microsoft Windows operating system, since most law office software is not available for Apple (MacBook, iPad) operating systems. 2 lecture hours; 2 laboratory hours per week. 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. 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 credit hours.

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 and 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 credit hours.

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 per week. 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 per week. 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 per week. 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

This course will explore a systematic approach to library resources in the technological environment. The course is designed to meet the individual research needs of today's 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. This is a technology-enriched class with many online components. 1 lecture hour per week. 1 credit hour.

MAT • Mathematics

MAT 016 Intro to Algebra – Part II

This course is designed for students who have successfully completed Intro to Algebra (part I) (MAT 015). This course will cover exponents, scientific notation, polynomials, factoring of trinomials, radicals, rational expressions, quadratics and the applications. 4 lecture hours per week. 4 institutional credit hours.

MAT 017 – Introduction to Elementary Algebra I

This course is accelerated to support completion of developmental requirements in less time than the traditional sequence. Topics include arithmetic operations, fractions, decimals, percentages, factors, proportions, integers, algebraic expressions, solving basic linear and inequalities, finding equations of lines, and graphing linear equations. Applications through problem-solving are integrated in all course topics. Technology is used to facilitate some independent, self-paced instruction. Prerequisite: satisfactory performance on Accuplacer. 3 lecture hours and 2 laboratory hours per week. 4 credit institutional hours.

MAT 019 – Introduction to Elementary Algebra I for Advanced Math Students

This course is accelerated to support completion of developmental requirements. Topics include arithmetic operations, fractions, decimals, percentages, factors, proportions, integers, algebraic expressions, solving basic linear equations and inequalities, finding equations of lines, and graphing linear equations. Applications through problem-solving are integrated in all course topics. Technology is used to facilitate some independent, self-paced instruction. Prerequisite: satisfactory performance on Accuplacer. 5 lecture hours per week. 5 institutional credit hours.

MAT 021 – Introduction to Elementary Algebra II for Advanced Math Students

This course is a continuation of MAT 019 to support accelerated completion of developmental requirements for STEM majors and those following a similar curriculum path. Topics include systems of linear equations, exponents, scientific notation, polynomials, factoring of trinomials, radicals, rational expressions, quadratics and applications in verbal problems. Applications through problem-solving are integrated into all course topics. Technology is used to facilitate independent, self-paced instruction. Prerequisites: MAT 019. 4 lecture hours per week. 4 institutional credit hours.

MAT 022 Introduction to Algebra

This course is for students whose College Basic Skills Test score indicates 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: required score on Algebra Placement Test. 4 lecture hours per week. 4 institutional credit hours.

▲ MAT 113 Math Applications

This course is intended for students in the Associate in Applied Science degree Programs. 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. Prerequisite: MAT 017 or required score on Algebra Placement Test. 3 lecture hours per week. 3 credit hours. NOTE: This course fulfills a general education requirement for A.A.S. degree candidates only.

MAT 117 An Introduction to Mathematical Ideas

This course is 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: MAT 017 or MAT 022, ENG 097, or satisfactory performance on the College Basic Skills Placement Test. 3 lecture hours per week. 3 credit hours.

▲ MAT 119 Algebra

This course is 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: ENG 097, a satisfactory score on the College Basic Skills Test for Algebra, and MAT 016 or MAT 022. 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 provide a better idea of what mathematics is and where it can be applied. Topics include Set Theory, Logic, Geometry, Operations Research and Game Theory, and Voting and Social Choice. Prerequisites: ENG 097, a satisfactory score on the College Basic Skills Test for Algebra or MAT 016, MAT 017, or MAT 022. 4 lecture hours per week. 4 credit hours.

▲ MAT 127 Elementary Statistics

This course is an elementary course in descriptive statistics and statistical inference. Topics include: measures of central tendency and dispersion, sampling and probability distributions, including binomial, normal, and others. Practical problems involving correlation, linear regression, confidence intervals, and hypothesis testing are included. Prerequisites: ENG 097, a satisfactory score on the College Basic Skills Test for Algebra or MAT 016, MAT 017, or MAT 022. 4 lecture hours per week. 4 credit hours.

▲ MAT 143 Elementary Mathematical Analysis I

This course provides an introduction to the concepts and techniques needed to proceed to more advanced mathematics and science courses, such as calculus. Topics include rational exponents, circles, functions and their properties, complex numbers, solving quadratic equations, graphs of quadratic functions, polynomial functions and their graphs, rational functions and their graphs, synthetic division, inverse functions, exponential and logarithmic functions with applications. Prerequisites: ENG 097 if required and 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

This course is 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, Sum, Difference, Double-angle, and Half-angle formulas, the Law of Sines, the Law of Cosines, solving trigonometric equations, polar coordinates, polar equations, polar graphs, DeMoivre's Theorem, Vectors, and Conics. Prerequisites: ENG 097 if required and a grade of "C" or better in MAT 143 or a satisfactory score on the "College Level Mathematics Test." 4 lecture hours per week. 4 credit hours.

▲ MAT 146 Brief Calculus with Applications

This course is 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: ENG 097, if required, and MAT 143 or satisfactory performance on the College Level Mathematics Test. 3 lecture hours per week. 3 credit hours.

▲ MAT 155 Elementary Mathematical Analysis

This course is an accelerated one semester Pre-Calculus course designed for students with sufficient mathematics background but in need of a review of material prior to taking Calculus. This course covers the advanced mathematics needed for Physics, Engineering, and the sciences. Topics include functions and their properties, graphs of quadratic functions, polynomial functions and their graphs, rational functions and their graphs, inverse functions, exponential and logarithmic functions with applications, right triangles and their applications, linear and angular velocity, graphing trigonometric functions, inverse trigonometric functions, Sum, Difference, Double-angle, and Half-angle formulas, the Law of Sines, the Law of Cosines, solving trigonometric equations, polar coordinates, polar equations, polar graphs, DeMoivre's Theorem, Vectors, and Conics. Prerequisites: ENG 097 and satisfactory score on the College Level Math exam and Division approval. 5 lecture hours per week. 5 credit hours.

▲ MAT 171 Unified Calculus I

This course is a college level study in Calculus. Topics include: 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 097, if required, and MAT 144 or MAT 155 or satisfactory performance on the College Level Mathematics Test. 4 lecture hours per week. 4 credit hours.

▲ MAT 172 Unified Calculus II

This course is a continuation of MAT 171 particularly appropriate for students continuing onto Calculus III or studying Engineering. Topics include algebraic and transcendental functions, techniques of integration, area, volume, applications to the physical, biological, and managerial sciences, infinite series, conic sections, and parametric equations. Prerequisites: ENG 097, if required, and MAT 171 or satisfactory performance on the College Level Mathematics Test. 4 lecture hours per week. 4 credit hours.

▲ MAT 246 Business Statistical Analysis

This course provides an application of statistical methods to business. Topics include an introduction to descriptive and inferential statistics, including measures of central tendency and dispersion, probability theory, sampling, estimations, hypothesis testing, analysis of frequencies, linear regression and correlation, time-series analysis and computer applications. This course is recommended as the foundation course in quantitative analysis as generally prescribed by AACSB member colleges for business administration students.

Prerequisite: ENG 097 if required and MAT 143. 4 lecture hours per week. 4 credit hours.

▲ MAT 265 Linear Algebra

This course will develop advanced mathematics skills appropriate for students pursuing STEM studies. Topics include: 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. Prerequisite: ENG 097, if required, and MAT 172. 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: ENG 097, if required, and MAT 171. Co-requisite: MAT 172. 3 lecture hours per week. 3 credit hours.

▲ MAT 267 Discrete Mathematics

This course will develop advanced mathematics skills appropriate for students pursuing STEM studies such as Engineering, Science, Computer Science, and Mathematics. Topics include sets, numbers, algorithms, logic, computer arithmetic, applied modern algebra, combinations, recursion principles, graph theory, trees, discrete probability, and digraphs. Prerequisite: ENG 097, if required, and MAT 143. 3 lecture hours per week. 3 credit hours.

▲ MAT 271 Unified Calculus III

This course provides additional topics in calculus and analytic geometry. Topics include 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 097, if required, and MAT 172. 4 lecture hours per week. 4 credit hours.

▲ MAT 272 Differential Equations

This course will develop advanced mathematics skills for students pursuing STEM studies. Topics include 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 097, if required, and MAT 271. 4 lecture hours per week. 4 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 approval of Division. 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 or MAT 155. 3 lecture hours per week. 3 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.

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: ENG 096. 3 lecture and 3 laboratory hours per week. 4 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.

Prerequisites: Completion of all developmental courses and GPA of 2.5. Co-requisites: BIO 105, CHE 114. 15 week course. 4 hours theory per week. 4 credit hours. Computer competency shown as either ADM 110 or successful ADM challenge exam credit is a required program and course competency.

NURE 131 Nursing I

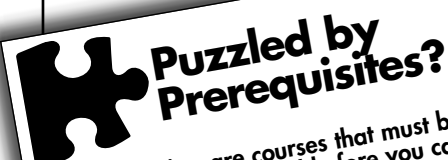
This course is an introductory course designed to establish the foundations of knowledge, attitudes and psychomotor skills necessary for beginning practice. The role of the nurse in the multi-cultural health care delivery system will focus on nursing care for selected health problems. Commonly seen health 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. Prerequisites: NURE 130, BIO 105, ENG 101, CHE 114, GPA 2.5. Co-requisites: BIO 106, NREL 131, PSY 101. 15 week course. 4 hours theory, 12 hours clinical per week. 8 credit hours.

NURE 132 Nursing II

This course 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. Prerequisites: NURE 131, NREL 131, BIO 106, PSY 101, and GPA 2.5. Co-requisites: BIO 108, NREL132, PSY 204. 15 week course. 4 hours theory, 12 hours clinical per week. 8 credit hours.

NURE 211 Bridge-to-Professional Nursing Core Concepts

This 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. Prerequisites: Proof of current LPN license; BIO 105, 106, 108; CHE 114; ENG 101, 102; PSY 101, 204; SOC 101; 6 credits Gen Ed Humanities Electives, and GPA 2.5. Co-requisite NURE 212, NREL 212. 15 week course. 3 theory hours per week. 3 credit hours. Computer competency shown as either ADM 110 or successful ADM challenge exam credit is a required program and course competency.



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.



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. Prerequisites: Same as NURE 211 and a GPA 2.5. Co-requisite NURE 211, NREL 212. 15 week course. 2 hours theory, 6 hours clinical per week. 4 credits hours.

NURE 231 Nursing III

This course 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. Other learning experiences occur in the classroom with assigned activities in the Learning Simulation Center and the computer lab. Prerequisites: NURE 132, NREL 132, BIO 108, PSY 204, GPA 2.5. Co-requisites: ENG 102, NREL 231, SOC 101. 15 week course, 4 hours theory, 12 hours clinical per week. 8 credit hours.

NURE 232 Nursing IV

This course builds upon the foundation of NURE 130, 131, 132, and 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 multi-cultural adult medical/surgical and psychiatric/mental health facilities. Prerequisites: NURE 231, NREL 231, all liberal arts and science courses listed in the curriculum and GPA 2.5. Co-requisites: NREL 232, 3 credits Gen Ed Humanities elective; 3 credits Humanities elective. 15 week course, 5 hours theory, 15 hours clinical per week. 10 credit hours.

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. Prerequisites: NURE 211/212, NREL 212, and GPA 2.5. Co-requisite NREL 250. 15 week course. 3 hours theory, 9 clinical hours per week. 6 credits hours.

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. Prerequisites: NURE 250, NREL 250; GPA. 2.5. Co-requisite NREL 260. 7 week course. 3 hours theory, 9 hours clinical per week. 3 credit hours.

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. Prerequisites: NURE 250, NREL 250, GPA. 2.5. Co-requisite NREL 270. 7 week course. 3 hours theory, 9 hours clinical per week. 3 credit hours.

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. Prerequisites: Completion of NURE 260, 270, NREL 260, 270 and GPA 2.5. Co-requisite NREL 280. 7 week course. 3 hours theory, 9 hours clinical per week. 3 credit hours.

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. Prerequisites: NURE 280, NREL 280 and GPA 2.5; Co-requisite NREL 290. 7 week course. 3 hours theory, 9 hours clinical per week. 3 credit hours.

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. Prerequisite: RN Generic Track – NURE 231, NREL 231; LPN-RN Track – NURE 260, NREL 260, NURE 270, NREL 270, and GPA 2.5. 15 week course. 1 hour per week. 1 credit hour.

Transportation – Students are responsible for providing their own transportation to school and to all clinical assignments. Clinical agencies utilized are located in but may not be limited to Union, Essex, Somerset, and Middlesex counties.

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 online course with 4 classroom meetings. Corequisites: BIO 105, CHE 114, 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 Deficit 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. Co-requisites: NURM 100, BIO 105, CHE 114, ENG 101; GPA 2.0. 3 lecture hours. 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 Medical Center Muhlenberg Harold B. and Dorothy A. Snyder School 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 4-week format. Prerequisites: Current LPN license, BIO 105, BIO 106, BIO 108, PSY 101, PSY 204, ENG 101, ENG 102, CHE 114, and SOC 101. 11.2 lecture and 11.2 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 are elaborated on. Laboratory experiences are provided in the classroom laboratory setting as well as medical-surgical units, long term care facilities, and any other clinical sites to meet the course objectives. Prerequisites: BIO 105, CHE 114, ENG 101, NURM 100, NURM 119. Co-requisites: NRML 121, 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 childrearing 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 developing skills, self care and wellness 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 co-requisites. Co-requisites: NRML 122, BIO 108, PSY 204. 4 lecture hours and 12 laboratory hours per week. 8 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. Corequisites: NRML 221, SOC 101, ENG 102. 4.5 lecture hours and 13.5 laboratory hours per week. 9 credit hours.

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. Co-requisites: NRML 222, 2 Humanities electives. 4.5 lecture hours and 13.5 laboratory hours per week. 9 credit hours.

NURM 141 Accelerated Nursing – Spring

NURM 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 105, BIO 106, BIO 108, CHE 114, NURM 100, PSY 101, PSY 204, ENG 101, ENG 102, SOC 101, 2 Humanities electives. Co-requisite NRML 141; GPA 2.0. 7 lecture hours and 18 laboratory hours per week. 13 credit hours.

NURM 241 Accelerated Nursing – Summer

NURM 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. Co-requisite: NRML 241. 8.2 lecture hours and 20.5 laboratory hours per week. 11 credit hours.

NURM 242 Accelerated Nursing – Fall

NURM 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. Co-requisite: NRML 242. 7 lecture hours and 18 laboratory hours per week. 13 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. Division approval required. 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.



PHI • Philosophy

▲ 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. Co-requisite: ENG 101. 3 lecture hours per week. 3 credit hours.

▲ PHI 206 History of Ancient and Medieval Philosophy

This course is 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: HIS 101-102. 3 lecture hours per week. 3 credit hours.

▲ PHI 207 History of Modern Philosophy

This course is 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: HIS 101-102. 3 lecture hours per week. 3 credit hours.

▲ PHI 209 Social Justice

This course analyzes the major theories of social justice, focusing on philosophical assumptions and practical applications. Special consideration is given to the problems of political obligation and individual autonomy, the distribution of social goods, sovereignty, political disobedience, the nature of law, and justifications of punishment. Prerequisite: ENG 097. 3 lecture hours per week. 3 credit hours.

▲ PHI 210 Ethics

This course focuses 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. 3 lecture hours per week. 3 credit hours.

▲ PHI 212 Logic and Critical Thinking

This course explores the elements of sound reasoning, including the nature of arguments and various forms of reasoning. Students will examine rhetorical devices as well as informal and formal fallacies. Examples of fallacious reasoning will be drawn from politics, advertising, business, morality, and religion. The course is designed to enhance students' critical thinking and promote success in academic inquiry across the disciplines. Prerequisite: ENG 101. 3 lecture hours per week. 3 credit hours.

PHY • Physics

▲ PHY 101 General Physics I

This is a general education, algebra-based, general physics course. It is the first in a two-course sequence. This course covers the following basic concepts: 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, and the mechanics of fluids. Prerequisite: MAT 143. Co-requisite: PHYL 111. 3 lecture hours per week. 3 credit hours.

▲ PHY 102 General Physics II

This physics course is the second part of a general education, algebra-based, multi-semester sequence. This course covers the basic concepts of temperature and heat, thermal expansion, heat transfer, ideal gas laws, the elastic properties of solids and liquids, thermodynamics, wave motion, stationary waves, sound waves, acoustics, light and illumination, reflection, refraction, thin lenses, optical instruments, physical optics, electrostatics, capacitance, electric circuits, power, magnetism, induced E.M.F., inductance, and simple AC circuits. Prerequisite: PHY101. Co-requisite: PHYL 102. 3 lecture hours per week. 3 credit hours.

▲ PHYL 102 General Physics II Laboratory

Physics laboratory to accompany PHY 102. Co-requisite: PHY 102. 3 laboratory hours per week. 1 credit hour.

▲ PHY 111 Mechanics

This is a general education, calculus-based physics course. It is the first in a two-course sequence. This course covers the study of classical mechanics including kinematics, projectile and circular motion, friction, work and energy, impulse and momentum, conservation of energy and momentum, static equilibrium, rotational dynamics, and fluids. Prerequisites: EGG 105, and MAT 171. Co-requisite: PHYL 111. 3 lecture hours per week. 3 credit hours.

▲ PHYL 111 Mechanics Laboratory

This physics laboratory course accompanies PHY 101, General Physics I or PHY 111, Mechanics. It covers the study of classical mechanics 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, rotational dynamics, and fluids. Co-requisite: PHY 101 or PHY 111. 3 laboratory hours per week. 1 credit hour.

▲ PHY 125 Elements of Physics

This is a general education lab science course. This course covers the fundamental ideas and concepts of physics in the following topics: measurements and units, motion of bodies, forces, work and energy, momentum, temperature and heat, waves, optics, electricity and magnetism, radiation, and atomic and nuclear physics. Prerequisite: MAT 119. Co-requisite: PHYL 125. 3 lecture hours per week. 3 credit hours.

▲ PHYL 125 Elements of Physics Laboratory

Physics laboratory to accompany PHY 125. Co-requisite: PHY 125. 2 laboratory hours per week. 1 credit hour.

▲ PHY 201 Electricity and Magnetism

This physics course is the second part of a calculus-based, multi-semester sequence. The course covers the basic concepts of electrostatics, electric and magnetic fields, electromagnetism, electric and magnetic circuits, induced electromotive forces, fundamental electrical measurements, circuits containing inductance and capacitance, and basic electronics. Prerequisite: PHY 111. Co-requisites: 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. Co-requisite: 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 110 Paramedic I

This course will focus on an introduction to NJ EMS operational model. Students will gain knowledge in the roles, responsibilities, and regulations which govern the profession. There will be a review of human structure and function that will relate to specific assessment skills and understanding of treatment modalities. Information will be presented on pharmacology, drug dosage calculation and administration, trauma, airway management, and cardiology. Techniques for assessment and clinical decision making will be demonstrated and practiced. Students will demonstrate proficiency in the skills mandated by the US DOT. Prerequisites: ENG 101, BIO 105, MAT 113, PSY 101. Co-requisite: BIO 106. 8 lecture hours and 9 laboratory hours per week. 11 credit hours.

PMD 113 Paramedic Clinical I

This clinical course provides hands-on learning experiences for paramedic students in the hospital clinical setting. Specific clinical areas include interventions for advanced airway management, respiratory care, IV access, and cardiac care. Skills learned and demonstrated in the lab will be applied in the clinical area. Prerequisites: PMD 110, BIO 106. Minimum 90 total clinical hours. 2 credit hours.

PMD 114 Paramedic Clinical II

This course provides the educational clinical experience required to prepare the student to achieve licensure as a paramedic. The clinical/field rotations are meant for application of learned theory and patient care skills, while under the direct observation and guidance of a preceptor. Clinical rotations will adhere to the N.J.A.C. 8:412A for required experiences. Prerequisites: PMD 110, PMD 113. Minimum 108 total clinical hours. 3 credit hours.

PMD 213 Paramedic II

This course builds upon the information and clinical lab experiences of PMD 110. Further information is provided on assessments, interventions, and pharmaceutical agents that are used by paramedics for medical emergencies. Advanced EKG interpretation and age-specific content will be presented, along with disaster management. Lab experiences will reinforce classroom content and serve to demonstrate students' competency in specific assessment skills and management of emergency situations. Prerequisites: PMD 110, PMD 113, PMD 114. Co-requisite: PMD 214. 8 lecture and 9 laboratory hours per week. 11 credit hours.

PMD 214 – Paramedic Clinical III

This clinical course provides the educational clinical experience required to prepare the student to achieve certification as a paramedic. Clinical rotations are meant for application of learned theory and patient care skills, while under the direct observation and guidance of a preceptor. Specific clinical areas as outlined by N.J. 8:41A Category II. Skills learned and demonstrated in the lab will be applied in the clinical area. Prerequisite: PMD 114. EMT-B, CPR, ACLS, and PALS certifications must remain current while enrolled. 1 theory credit, minimum 180 total clinical hours. 5 credit hours.

PMD 215 Paramedic Field Internship

This course provides 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 NJ state licensed paramedic unit. Objectives of the course will adhere to the N.J.A.C. 8:41A; Category III/Field Experience. At the conclusion of this course, students will have a terminal competency assessment conducted by the Program Director and Medical Director. Information on pre-hospital life support for the paramedic, and a review for the certification examination will be included. Prerequisites: PMD 213, PMD 214. 1 theory credit hour; minimum 400 total clinical hours. 11 credit hours.

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, patient 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 patients in meeting their physiological and psychosocial self-care requisites in the long term and acute care setting. Emphasis will be placed on patient assessment and an understanding of the commonly occurring and chronic conditions that alter an individual's state of wellness. Care of patients 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 clinical reasoning 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 patient care settings where students will apply basic nursing principles and techniques. Prerequisites: PNU 190, ENG 101 or ENG 112, BIO 102 or BIO 106, PSY 101, GPA 2.5. Co-requisite: Elective. 105 lecture hours and 135 clinical lab hours. 10 credit hours (7 theory, 3 clinical lab).

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 multidisciplinary health team caring for patients and their families in obstetrical, pediatric, and mental health settings. Knowledge and skills are developed that will assist patients 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 patients and their families. Economic and sociocultural issues that influence the patient and family will be discussed. The student will continue to use the nursing process within the self-care framework in providing care to patients during clinical experiences in inpatient and/or ambulatory obstetric, pediatric, and mental health settings. Prerequisites: PNU 191, Elective, GPA 2.5. Co-requisite: PSY 204. 90 lecture hours and 135 clinical lab hours. 9 credit hours (6 theory, 3 clinical lab).

PNU 211 Adult Health II and Role Transition

In this course the student focuses on meeting the holistic self-care needs of the adult patient 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 patient 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 204, GPA 2.5. 120 lecture hours, 180 clinical lab hours. 12 credit hours (8 theory, 4 clinical lab).

PSRT • Psychosocial Rehabilitation – Rutgers**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 Rutgers program. For the most current course description visit <http://shrp.rutgers.edu>

PSRT 1101 (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.

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 Division Dean's office. 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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Division Dean's office. 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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 Rutgers program. For the most current course description visit <http://shrp.rutgers.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 students who have been accepted into a Rutgers program. For the most current course description visit <http://shrp.rutgers.edu>

PSY • Psychology

▲ PSY 101 General Psychology

This course is an 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 096. 3 lecture hours per week. 3 credit hours.

▲ PSY 102 Psychology of Personality

This course explores personality dynamics in light of the major theories of personality, including Freudian, behavioral, trait, cognitive, socio-cultural, humanist and other perspectives. Included are an introduction to theory construction, personality assessment, and theories of deviance. 3 lecture hours per week. 3 credit hours.

PSY 105 Group Dynamics

This course is 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 Lifespan Development

This course provides the context to understand the significant processes that shape human development over the course of human life. The focus of this course is the scientific study of the biological, psychological, cognitive, emotional, personal, and social changes throughout life span, beginning with prenatal development, through infancy, early and middle childhood, adolescence and the major adult stages (early, middle, late, and issues related to the end of life). Controversial and ethical issues relevant to lifespan development and the scientific study of human development will be studied. Prerequisite: PSY 101. 3 lecture hours per week. 3 credit hours.

▲ PSY 205 Child Psychology

This course is a 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 course is a 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

This course is 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 Division Dean's office. 3 lecture hours per week. 3 credit hours.

PSY 211 Current Issues in Psychology

This course prepares students to present and explore 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

This course is 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 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 the Division Dean's office. 3 lecture hours per week. 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. Co-requisites: 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. Prerequisite: (All with a grade of "C" or better) BIO 105, ENG 101, MAT 119, PSY 101. Co-requisites: 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+." Co-requisites: 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. Co-requisites: 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. Co-requisites: 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. Co-requisite: 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+." Co-requisite: 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 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. 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. 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. 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. 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. 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. 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 or PHY 101. Co-requisite: 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. 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. Prerequisite: RADM 121. 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. 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. SONOGRAPHY - Prerequisite: DMSM 100. 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. 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. 3 lecture hours per week. 3 credit hours.

RNTL 201 CT Skills Assessment

This course is offered to Radiography students and licensed/registered Radiographers who are eligible to perform Computed Tomography procedures at accredited medical institutions. In addition to the topics covered in RNTM201, RNTL201 requires 45 clinical experience hours in a CT facility. Clinical proficiency exams in several procedures included in the American Registry of Radiologic Technologists (ARRT) certification requirements competencies must be demonstrated. In addition, students observe and assist CT technologists in the clinical setting and experience and evaluate the quality of CT images. Pre/Co-requisite: RNTM 201. 3 clinical hour per week. 1 credit hour.

RSTN • Respiratory Care – Rutgers 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. Co-requisites: RSTN 2200 and RSTN 2231. 2 lecture hours and 1 laboratory hour per week. 2 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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. Co-requisite: 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 Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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. Co-requisite: RSTN 2100. 7 clinical hours per week. 1 credit hour. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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. Co-requisites: RSTN 2000 and RSTN 2231. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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, RSTN 2200 and RSTN 2231. Co-requisites: 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 Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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 of 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. Co-requisites: RSTN 2000 and RSTN 2200. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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, BIO 106, RSTN 2000, RSTN 2200 and RSTN 2231. Co-requisites: RSTN 2230. 2 lecture hours per week. 2 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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: RSTN 2100 and RSTN 2189. Co-requisite: 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 Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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: RSTN 2100 and RSTN 2189. Co-requisite: RSTN 2250. 6 clinical hours per week. 2 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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: RSTN 2250, and RSTN 2289. Co-requisites: RSTN 2389. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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: RSTN 2100 and 2189. Co-requisites: RSTN 2250 and RSTN 2289. 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 Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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 2232 and RSTN 2230. 3 lecture hours per week. 3 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.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 long-term, home and rehabilitative care. Prerequisites: RSTN 2250, and RSTN 2289. Co-requisites: RSTN 2340. 18 clinical hours per week. 3 credit hours. This course is only available to students who have been accepted into a Rutgers SHRP program. For the most current course description visit <http://coursecatalog.shrp.rutgers.edu/>

SOC • Sociology**▲ SOC 101 Principles of Sociology**

This course is an introduction to the foundation 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 096 if required. 3 lecture hours per week. 3 credit hours.

▲ SOC 102 Social Problems

This course is an analysis of basic social problems, their causes and effects on society at large, and 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 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 096. 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

In this course students will learn about women's roles and lives in different 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. 3 lecture hours per week. 3 credit hours.

▲ SOC 206 Minorities in American Life

This course is 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

This course examines 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

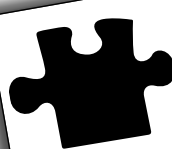
This course provides an overview of the development of policies for social welfare and assistance in the United States and abroad. A number of socially relevant topics will be discussed, including types of social welfare systems, public attitudes about social welfare policies, intersections of race, 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 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.

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▲ SOC 273 Marriage and the Family

This course uses 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 a successful marriage and healthy family. Prerequisite: SOC 101. 3 lecture hours per week. 3 credit hours.

SPA • Spanish

▲ SPA 101 Beginning Spanish I

This course includes development of the fundamentals skills of understanding, speaking, reading, and writing. Listening practice is 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 096, if required. 3 lecture hours per week. 3 credit hours.

▲ SPA 102 Beginning Spanish II

This course is a continuation of SPA 101. 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

This course offers 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 096, if required. 3 lecture hours per week. 3 credit hours.

SPA 106 Conversational Spanish II

This course is 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

This course includes 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

This course provides 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. Prerequisite: SPA 101, SPA 102 or 3 years high school Spanish. 3 lecture hours per week. 3 credit hours.

▲ SPA 112 Intermediate Spanish II

This course is a continuation of SPA 111 or 3 years of high school Spanish. 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

This course 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)

This course offers 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)

This course offers 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

This course provides 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

This course is a continuation of SPA 121. Prerequisite: SPA 121. 3 lecture hours per week. 3 credit hours.

TRN • Translating**TRN 101 Introduction to Written Translation**

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**

UCC 101 is a College Success course designed to connect students to each other, their new college environment, and their future goals and careers. This course will teach students effective study skills and help them develop career plans. It will show students how to clarify their interests, prepare for job applications and interviews, and utilize all college resources to get them to graduation. 2 lecture hours. 2 credit hours.

UPR • Psychosocial Rehabilitation**UPR 101 (PSRT 1101) 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 096. 3 lecture hours per week. 3 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. 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 Union County College 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. 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 Union County College co-op experience class or Internship I during the same semester. Prerequisite: 2.0 GPA. 6 credit hours.



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The catalog provides information for your guidance as you make academic decisions. Generally, students are entitled to graduate under the degree provisions of the catalog in effect at the time of their first completed semester of enrollment. However, the College reserves the right to make changes to any curriculum or program, whether during a student's enrollment or otherwise. Other policies and procedures stated within this catalog are applicable during the year(s) indicated as the Catalog's effective date. Payment of tuition or attendance in any class shall constitute a student's acceptance of the administration's rights as set forth above.

Union County College is an Equal Opportunity Employer.

Errors and Omissions with regard to:

- ... **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 Development.

**This catalog has been published
by The Department of Academic Affairs
and
The Office of College Relations**

Public Annual Notification

Non-Discrimination and Anti-Harassment Policy

Union County College is committed to environments for all students, employees, and visitors that are free from discrimination and harassment. In accordance with State and Federal law, Union County College does not discriminate and prohibits discrimination on the basis of the following protected classes and/or characteristics, in all of its programs and activities, including but not limited to employment, promotion, admissions, and access to all career and technical programs: Race; Creed; Color; Sex; Gender; Pregnancy; Gender Identity or Expression; National Origin; Nationality, Age; Ancestry; Marital Status; Domestic Partnership, or Civil Union Status; Religion; Affectional or Sexual Orientation; Atypical Heredity Cellular or Blood Trait; Genetic Information; Liability for Military Service; Protected Veteran Status; Mental or Physical Disability (including perceived disability, AIDS and HIV related illnesses); Harassment (related to any of the forgoing categories); Retaliation for filing a complaint of, or participating in, an investigation of discrimination; and any other category protected by law.

The following individuals have been designated to address inquiries regarding Section 504, the ADA, and Title IX, as indicated:

Complaints:

Dr. Raul M. Sanchez
Equal Employment Opportunity/Affirmative Action Officer
Title IX Coordinator
MacDonald Hall, room A-107
Phone: 908-709-7179
raul.sanchez@ucc.edu

All complaints of discrimination, including those concerning Title IX, Section 504, and the ADA should be directed to Dr. Sanchez

Student Accommodation Requests:

Ms. Karen Cimorelli
Coordinator of Disability Support and Services
Nomahegan Hall, room N-3
Phone: 908-709-7164
karen.cimorelli@ucc.edu

All requests for accommodations from Union County College students, pursuant to Section 504 or the ADA, should be directed to Ms. Cimorelli.

Employee, Guest, and Visitor Accommodation Requests:

Mr. Vincent Lotano
Director of Human Resources
Section 504 Administrator and ADA Coordinator
MacDonald Hall, room A-219
Phone: 908-709-7046
Vincent.lotano@ucc.edu

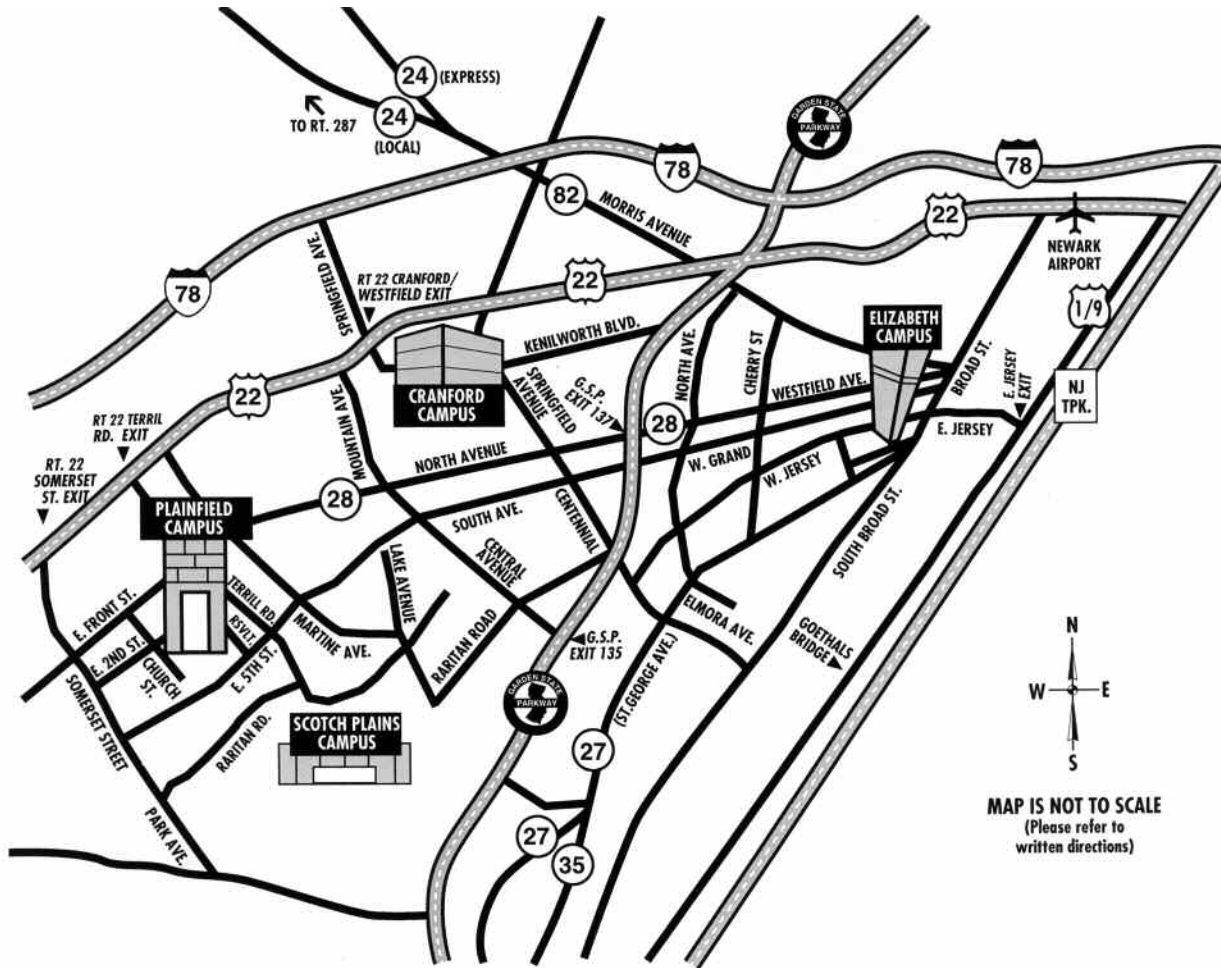
All requests for accommodations from Union County College employees, guests, and visitors, pursuant to Section 504 or the ADA, should be directed to Mr. Lotano, the Section 504 Administrator and ADA Coordinator. All matters, other than student accommodation requests and complaints, also may be directed to Mr. Lotano.

NOTES

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CAMPUS OVERVIEW MAP & DIRECTIONS



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

12 WEST JERSEY STREET, ELIZABETH, NJ 07202
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
225 ROOSEVELT AVENUE, PLAINFIELD, NJ 07060
(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

- **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.



CRANFORD



ELIZABETH



PLAINFIELD



SCOTCH PLAINS