



# UNION COUNTY COLLEGE

2019-2020 CATALOG • [www.ucc.edu](http://www.ucc.edu)





# 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 do not simply 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 are 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 opportunity to transfer 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 help you to enter 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.

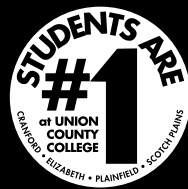
Thank you for choosing to be a Union County College student and for pursuing your dream of a college education with us.

Sincerely,

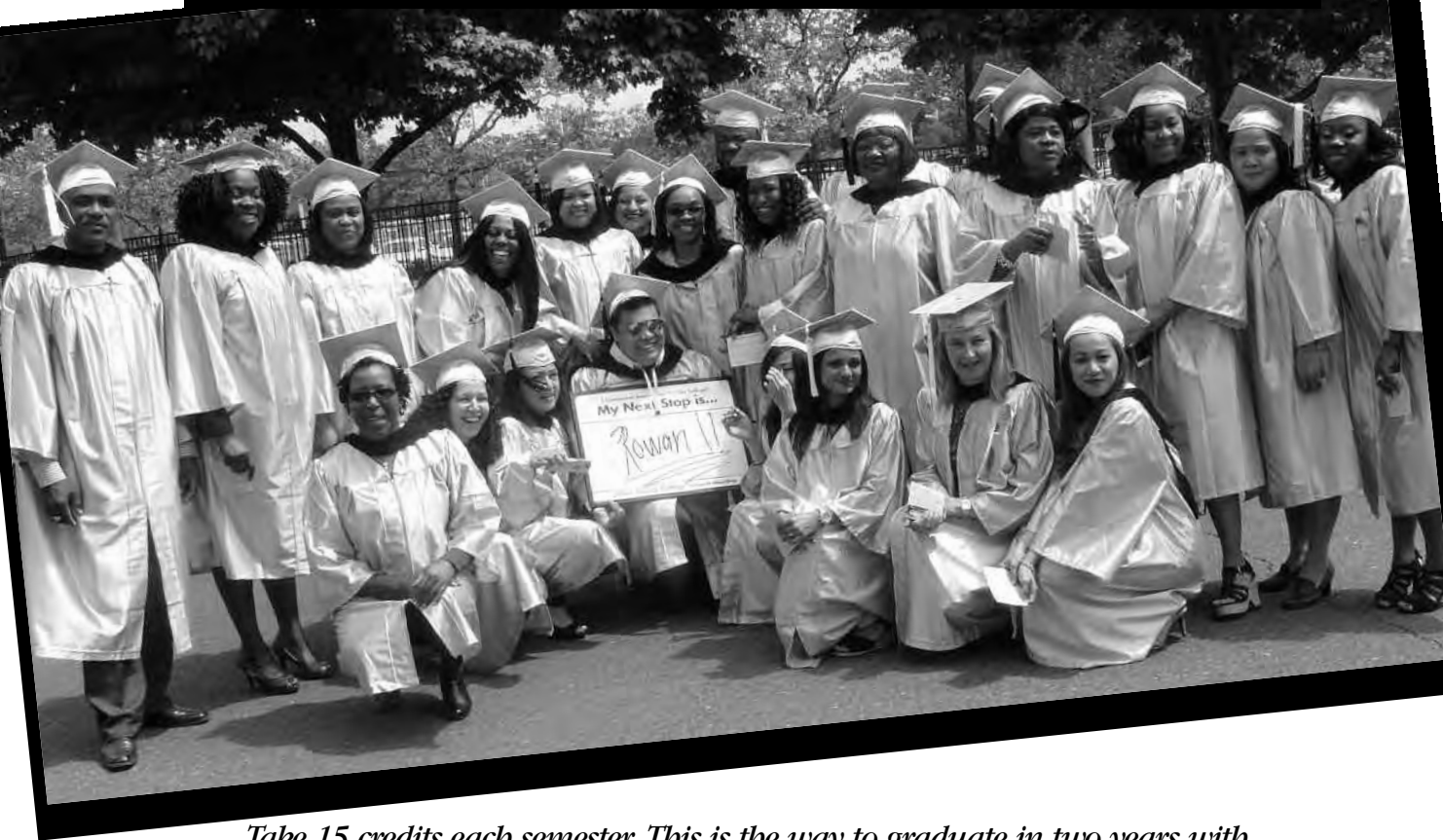
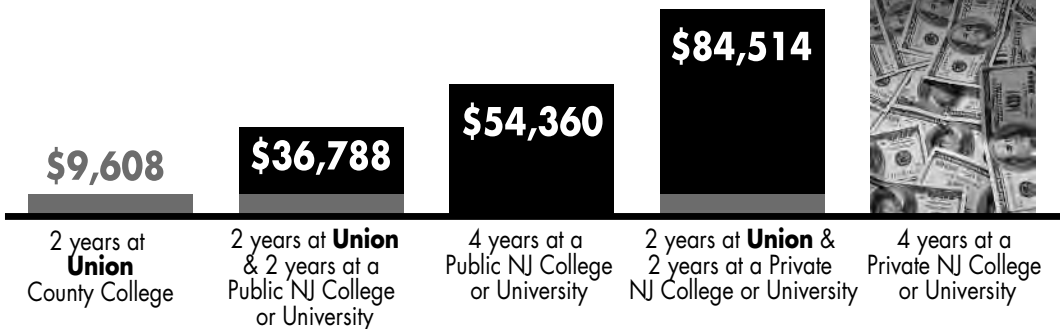
Dr. Margaret M. McMenamin  
President



# Same degree, better value.



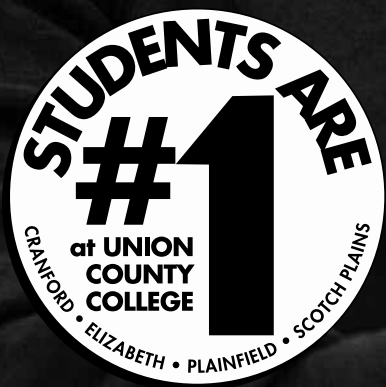
Start at Union County College, graduate,  
transfer anywhere, and **SAVE THOUSANDS**  
off the cost of your tuition.



*Take 15 credits each semester. This is the way to graduate in two years with an Associate 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 Degree at the same price as taking 12 credits a semester.*

**FINISH IN TIME**

15 CREDITS A SEMESTER IS THE WAY TO GO!





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DIRECTORIES & INDEX







# This is Union



## Union County College

Union County College is a public comprehensive community college providing quality, affordable, accessible educational programs that serve the greater Union County region. It is the first of New Jersey's 19 associate degree colleges and has been serving both career-minded and transfer-oriented students since 1933. The College operates major campuses in Cranford, Elizabeth, and Plainfield, and has satellite locations in Scotch Plains and Rahway. It enrolls almost 20,000 credit, non-credit, and continuing education students and is accredited by the Middle States Commission on Higher Education.

Many programs lead to an Associate in Arts, Associate in Science or an Associate in Applied Science degree. The College also offers cooperative nursing programs with the Trinitas School of Nursing in Elizabeth, New Jersey, and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools in Plainfield, New Jersey.



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 as Union County Junior College, Union Junior College, and Union College is now Union County College, a comprehensive community college serving 20,000 credit and 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 the 50-year-old junior college (named Union College) to form Union County College. The merger included the establishment of a Board of Trustees to oversee College operations, and a separate Board of Governors to act in an advisory capacity and to elect four of its members to serve on the Board of Trustees.

With the merger of the Technical Institute and the existing 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 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, Scotch Plains, and an academic presence in Rahway. 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' 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 doubled its footprint in 2013 with the purchase of property that was once an automotive parts facility. In fall 2015, the Health Sciences building opened with state-of-the-art labs for the Practical Nursing, Emergency Health Science, and Paramedic Programs.

The Cranford campus expanded in 2016, thanks to the Union County Improvement Authority. A two-story, 40,000 square-foot facility, an extension of the renovated historic Nomahegan Building, is now the hub of the campus. The Student Development Building houses a wide range of student services on the first floor in the Helen E. Chaney Student Services Center, named for the generous donor and alumna Helen Chaney, '48. The second floor houses classrooms as well as faculty and departmental offices.

In August 2016, the Annex at the Plainfield campus finally re-opened after being shuttered for four years by a fire. The renovated building contains an Information Commons, bookstore, cafeteria, and has faculty offices on the second floor.



In June 2017, the Middle States Commission on Higher Education reaffirmed Union's accreditation after more than three years of hard work preparing for the visit and evaluation by the College's faculty, staff, and administration. The Commission is a voluntary, non-governmental, membership association that defines, maintains, and promotes educational excellence across institutions with diverse missions, student populations, and resources.

The most recent renovations were completed during the spring of 2018 to the first floor and lower level of the Lessner Building at the Elizabeth campus. The first floor houses a new Student Services Center and the lower level has offices and training classrooms for the College's Center for Economic and Workforce Development. The addition of the new Student Services Center has allowed the College staff to provide modernized and streamlined services for our students and to continue with our mission of transforming our community...one student at a time!



# 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 lifelong-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/technological competency.

**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, 2012, and again in 2017 as Union County College. In 2017, the Middle States Commission on Higher Education acted:

To reaffirm accreditation and to acknowledge the institution's participation in the Collaborative Implementation Project. To commend the institution for the quality of the self-study process and report. The next evaluation visit is scheduled for 2025-2026.

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, the precursor to Union County College has 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 Muhlenberg Harold B. and Dorothy A. Snyder Schools);

**Respiratory Care** – The Union County College Respiratory Care Program, 200628, Associate in Applied Science, Plainfield, NJ Campus holds Provisional Accreditation from the Commission on Accreditation for Respiratory Care ([www.coarc.com](http://www.coarc.com)). This status signifies that a program with an Approval of Intent has demonstrated sufficient compliance with the Standards (through submission of an acceptable Provisional Accreditation Self Study Report (PSSR) and any other documentation required by the CoARC, as well as satisfactory completion of an initial on-site visit), to be allowed to admit students. It is recognized as an accredited program by the National Board for Respiratory Care (NBRC), which provides enrolled students who complete the program with eligibility for the Respiratory Care Credentialing Examination(s). The program will remain on Provisional Accreditation until it achieves Continuing Accreditation.

**Physical Therapist Assistant** – (American Physical Therapy Association, Commission on Accreditation in Physical Therapy Education);

**Professional Nursing** – (Accreditation Commission for Education in Nursing, conducted jointly with JFK 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);

**Paralegal Studies** – (Approved by the American Bar Association);

**Paramedic Emergency Health Science** – The Union County College Paramedic Emergency Health Science Program is accredited by the Commission of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).; 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 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 from 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 nine major buildings on the Cranford Campus at 1033 Springfield Ave, 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 computer laboratories, and faculty offices, lounges, cafeteria and faculty dining room; the NEW Student Development Building contains lecture and computer classrooms, faculty offices, and the Student Services Center offering One-Stop Registration, advising, and support services; 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 Observatory, which houses a 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 Roosevelt Avenue. The three-story Lagos 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, Respiratory Care, 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 operates a 65,000 sq. ft. building that 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 nonprofit 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 a reduced 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 by dedicated alumni and community leaders to raise funds to benefit the students at Union County College and to support innovative programs. With over 40 years of work to support student success, the

Foundation is proud to report that over

**the past three years, the Foundation has provide over \$3.25 million in scholarship support to our students.**

Thanks to the support of our community, the Foundation funds four student success campaigns that have a dramatic impact on student outcomes as well as a food insecurity program to help feed needy students.

- Operation Graduation financially supports the efforts of Union County College's strategic initiative to increase the overall graduation rates at the College;
- The Close the Gap Fund provides vital financial support to our African-American students who are on track to graduate on-time;
- The STEM Revolution grants resources to our STEM Division while also supporting scholarships for STEM students;
- Inspire the Future aids students of Hispanic heritage by providing scholarship support to help them graduate on-time.
- The Food Insecurity Program provides free breakfasts and helps support the College's food pantry.

As a non-profit organization, the Foundation receives support from direct contributions, special events and legacy gifts. The Foundation staff manages the day-to-day operations of the organization, and an elected Board of Trustees oversees Foundation committees as well as administers the Foundation's endowment.

For more information on how you can support the Foundation's mission, please call (908) 709-7505, e-mail [foundation@ucc.edu](mailto:foundation@ucc.edu) or visit the Foundation's website at <https://www.ucc.edu/union-county-college-foundation/>. The Foundation's Annual Report is available upon request.



**U** **UNION**  
**COUNTY**  
**COLLEGE**

**Transforming  
Our Community...  
One Student  
at a Time**

## Welcome

Welcome to Union County College Student Services Center, where we offer a wide variety of services for new, returning, and transfer 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 Admissions
- 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 at the Cranford, Elizabeth, and Plainfield Campuses or through the College website, [www.ucc.edu](http://www.ucc.edu).

### Degree Programs

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

1. Official high school transcript/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](http://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](http://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 Admissions Office 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. Health Science program applicants must apply within the required program deadline date. The programs include Practical Nursing, Physical Therapist Assistant, Paramedic, JFK Muhlenberg Harold B. & Dorothy A. Snyder Schools, and Trinitas School of Nursing (see Admission to Health Science Programs).

7. JFK Muhlenberg Harold B. & Dorothy A. Snyder School applicants must apply directly to the JFK Muhlenberg Harold B. & Dorothy A. Snyder Schools; all academic processing will be handled through the Schools.

8. The Trinitas School of Nursing application for admission must be submitted directly to the Student Services Center at any of the three campuses.

9. After submission of the Union County College application 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).

10. 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 Science Programs

1. Admission to the Health Science programs requires additional selection criteria and may include an admission exam. Health Science programs include: Practical Nursing, Physical Therapist Assistant, Paramedic Emergency Health Science, Respiratory Care, JFK Muhlenberg Harold B. & Dorothy A. Snyder Schools, and Trinitas School of Nursing.
2. Health Science programs require a passing score on the admission exam.
3. Students in Health Science programs are required to attend an orientation session.
4. Distinct grading policies exist in the Health Science programs which differ from other College courses and programs. Specific information may be found in course syllabi and/or handouts.
5. Health Science policies may supersede College policies.
6. Clinical agencies require that students complete criminal background checks, before entrance into the clinical portion of the Health Science 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 applicable Health Science program.
7. 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.
8. 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 Sign Language and Deaf Studies, A.S. Degree
- American Sign Language and Deaf Studies, 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, A.A.S. Degree
- Diagnostic Medical Sonography, A.S. Degree

## Testing and Placement

After admission to the College and before enrolling in classes, students must take the College Placement Test or meet exemption criteria. The College Placement Test covers English and mathematics and is used to determine whether students are prepared for college-level coursework.

While the results of the College Placement Test will not affect admission to the College, it may indicate the need for required developmental courses which must be completed before enrolling in certain college-level coursework.

Students whose native language is not English or who did not attend grammar school or high school in the United States may have to take the English for Speakers of Other Languages (ESL) Test in lieu of the College Placement Test.

In order to take either the College Placement Test or ESL Test, a student must have a College identification number and present a form of photo identification. There are no appointments to test; students may do so on a walk-in basis during the Testing Center's open hours. Students must prepare prior to being permitted to take the College Placement Test. Please see the Testing Center's website for study materials and current hours on each of the College's campus locations: [www.ucc.edu/testing](http://www.ucc.edu/testing)

### The Advanced Algebra & Functions (AAF) Exam

Students who place into college-level math, including students exempt from the College Placement Test, should take the Advanced Algebra & Functions (AAF) Exam for appropriate placement. This may allow students to progress through their program at a faster rate.

### Union County College requires that the following students take the College Placement Test:

1. Full-time and part-time freshmen entering Union County College.
2. Students who have not already taken the College Placement Test, but who register for courses that would result in the accumulation of 12 or more credits.

### Students who meet the following criteria may be exempt from the College Placement Test\*:

1. A student who graduated from high school within the past 5 years with an unweighted GPA of 3.0 or higher and completed 4 years of English and 3 years of mathematics will be exempt from the College Placement Test. The College reserves the right to evaluate placement upon review of the student's high school transcript.
2. A student who presents SAT (Scholastic Achievement Test from the College Board) scores of at least 540 in Critical Reading and/or at least 530 in Mathematics will be exempt from the appropriate section of the College Placement Test.
3. A student who has earned a bachelor's degree from an accredited U.S. college will be exempt from the College Placement Test.
4. A student who is transferring in credits for college-level English composition or mathematics from an accredited U.S. college with a grade of C or better will be exempt from the appropriate section of the College Placement Test.
5. A student who has satisfactorily completed developmental courses in English and/or elementary algebra at another college may be exempt from the appropriate section of the College Placement Test.
6. A student who has taken the requisite Accuplacer English sections and/or Accuplacer algebra with qualifying test scores at another college in New Jersey within the past 3 years will be exempt from the appropriate section of the College Placement Test.

\* Students will be required to submit official score reports or transcripts to the College based on the specific exemption.

To learn more about the Testing Center, contact us at [testingcenter@ucc.edu](mailto:testingcenter@ucc.edu).

## 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 will be required in addition to provide:

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

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

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

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 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 the 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](http://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 Testing and Placement) 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 must see an academic advisor.

Students who, after having registered, decide not to attend before the beginning of the ensuing semester may drop 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 Student Services Center. Tuition refunds will be processed through the Student Services Center, if applicable.

JFK Muhlenberg Harold B. & Dorothy A. 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 Muhlenberg Harold B. & Dorothy A. 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](http://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 will change their program to a college program after completing no more than twelve degree credits or have their program changed by the College to Liberal Studies.

**Non-Matriculated Student** – Students who are not accepted in a specific program or who do not wish to declare a program are nonmatriculated. 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 completed in a Student Services Center. 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 fulfill additional requirements.

## 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 American Honors Program, Educational Opportunity Fund Program (EOF), Health Programs, JFK Muhlenberg Harold B. & Dorothy A. 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 payment history, refunds and 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.

## 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/paying-for-college/estimated-costs-to-attend/tuition-fees-and-books/](http://www.ucc.edu/admissions/paying-for-college/estimated-costs-to-attend/tuition-fees-and-books/)

Please visit the Student Services Center on the College's Cranford, Elizabeth, or Plainfield campus, call (908) 709-7063 or e-mail [StudentAccountsOffice@ucc.edu](mailto:StudentAccountsOffice@ucc.edu) for more information. For privacy reasons, please use your Owl's Nest email account.

## Payment Policies

**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 anytime by going to the Financial Information links in Web Services at: <https://webservices.ucc.edu>

### Payment/Drop Procedures:

- Students who do not make payment or do not have sufficient financial aid by the posted payment deadline for the semester could be de-registered from their courses.
- **Students who register after the payment deadline must make payment or have sufficient financial aid by the following business day or they could be de-registered.**

## 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 five) and the required down payment percentage depends on when the plan is established.
- Students can sign up for payment plan and make the initial payment on-line <https://webservices.ucc.edu> or at a Student Services Center.
- 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 may not eligible to participate in the Plan in future semesters.

## 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 amount already owed and will result in the disruption of your credit worthiness when the collection agency reports the delinquent account to national credit bureaus.
- A "Hold" will be placed on the student's account and the student will not be allowed to receive grades, letters of recommendation, or transcripts and will not be permitted to register for subsequent semesters until 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.
  - **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.
  - **Later 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.

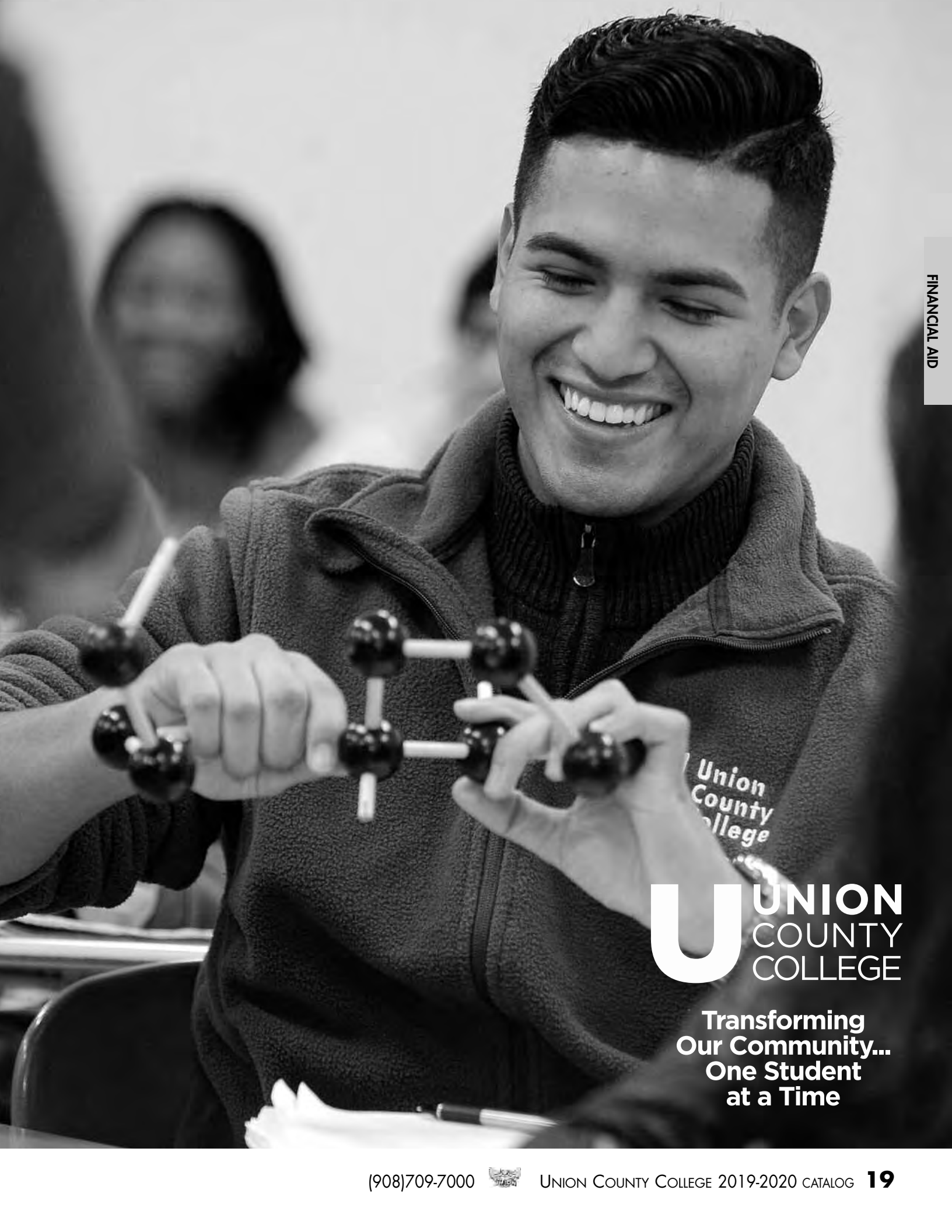
### Book Allowances

- 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. Visit the Student Services Center 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 Student Services Center must be provided with 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 certificates.



**U** **UNION**  
**COUNTY**  
**COLLEGE**

**Transforming  
Our Community...  
One Student  
at a Time**

# 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](http://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 2017 tax returns for the 2019-2020 academic year. **If you previously received a Tuition Aid Grant (TAG) you will need to complete your FAFSA by April 15, 2019 in order to be considered for the grant in the next academic year 2019-2020.** 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](http://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 2019-2020 Academic Year

"Tuition and fees are subject to change based upon the Board of Trustees' discretion"

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	\$5,281.00	\$5,281.00
Books and Supplies	\$1,416.00	\$1,416.00
Room and Board	\$7,316.00	\$1,942.00
Transportation	\$1,780.00	\$1,780.00
Living Expense	\$2,410.00	\$2,410.00
Total Budget	\$18,202.00	\$12,828.00

## 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 2019-2020 academic year is \$6,195 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 Supplemental Educational Opportunity Grant (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.

### 2018-2019 INTEREST RATES\*\*

<b>Subsidized Loan*</b>	5.05%
<b>Unsubsidized Loan</b>	5.05%
<b>PLUS (Parent) Loan</b>	7.60%

\* With a first disbursement date after July 1, 2018.

\*\* Interest rates subject to change after July 1, 2019

**Please review the studentaid.gov website for up-to-date interest rates**

For application instructions, please go to the Financial Aid page on the College's website, [www.ucc.edu](http://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](http://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 of either 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](http://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](http://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:
  - 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](http://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 side 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 include:**

- 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	Maximum 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 services, 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 grade 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
- State 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 canceled, 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

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](http://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](mailto:foundation@ucc.edu).

## Current Union County College Scholarships as of 1/9/19

AAI Members Memorial Scholarship (Amateur Astronomers, Inc.)  
 Academic Learning Center Scholarship  
 Adjunct Faculty of Union County College Scholarship  
 Dr. Mandana Ahsani Scholarship  
 ALC Scholarship  
 Alumni Association Part-Time Scholarship  
 Alumni Scholarship for Degree Completion (In Memory of Winifred Weislogel)  
 American Association of University Professors Scholarship (#1, #2, #3)  
 American Honors Leadership Scholarship  
 American Way Scholarship  
 Virginia and Henry Apelian 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 Bracher and Marguerite Hesseman Scholarship  
 Bramnick Law Firm Scholarship  
 The Nadine Brechner Scholarship  
 Bristol Myers Squibb Scholarship  
 The Brown Family Paramedic 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 (#1 and #2)  
 Careers in Transportation Scholarship  
 The Celgene Future Caregiver Award Scholarship  
 Cento Amici Scholarship in Memory of John Neiswanger  
 Helen E. Chaney Scholarship  
 Helen E. Chaney Completion Scholarship  
 Helen E. Chaney Scholarship for Part-Time Students  
 The Christ Fellowship Kingdom Advance Scholarship  
 Coca-Cola Refreshments Scholarship  
 Colonna/Cormier Scholarship  
 ConnectOne Bank Scholarship  
 ConnectOne Bank Completion -Scholarship  
 Cooperative Counseling Services Scholarship  
 Camille and Robert Cormier Scholarship  
 Corporate Chefs Scholarship  
 Daniel G. Covine Memorial Scholarship  
 Cranford Firefighters Mutual Benevolent Association, Local 37, Scholarship  
 Cranford Jaycees Scholarship  
 Joan David-Chance Scholarship  
 Judge Cuddie E. Davidson, Jr. Memorial Scholarship  
 Charles T. Davis, Sr. Scholarship  
 Del Cid Dreamer Scholarship  
 Lillian Pierce Dievler Arts & Humanities Scholarship  
 Rachel Ann Drinkwater Scholarship  
 Dubitsky-Belmonte Scholarship  
 The Edles Family Scholarship  
 Elizabethtown Gas "Fueling the Future" Scholarship  
 Engineering/Engineering Technology/Architecture Department Scholarship  
 Faculty Scholarship  
 Farrell Family Scholarship  
 Donald J. & Margaret V. Feaster Scholarship  
 The Dr. Sondra Fishingier Scholarship  
 The Dr. Sondra Fishingier Honors Scholarship  
 John G. Flynn Memorial Scholarship  
 The Barbara H. Foley Scholarship (#1 and #2)  
 Follett New Student Scholarship

<p>The Fox Family Scholarship (#1 and #2)          Freeholder Scholars Program          Frog Crossing Foundation, Inc. Scholarship          Frog Crossing Foundation First in the Family Scholarship          Thomas Gallagher Scholarship          Dorothy Gasorek Memorial Scholarship          The Arthur Geilfuss Memorial Scholarship          The Emma Geilfuss Memorial Scholarship          Gellert Giving Scholarship          General Endowment Scholarship          Gibson Family Foundation Scholarship          Glasser Foundation Scholarship          Glasser Foundation Completion Scholarship          Glasser Foundation First in the Family Scholarship          Dr. Edward Golda Scholarship          Robert M. Gray Memorial Scholarship          Dr. Andrea Green Memorial Scholarship          Jerry Green Memorial Scholarship          John &amp; Patricia Griffith Scholarship          Dr. Toby Grodner Scholarship          Professor Casey Grygotis Scholarship          Richard &amp; LaVerne Haberski Scholarship          Charles J. Hanak Jr. and Mary Hanak Memorial Scholarship          Lavinia and Michael Hand Scholarship          Robert F. Hand Scholarship          Thomas H. Hannen, Sr. Scholarship          Margaret B. Hanson Memorial Scholarship          Dr. Elizabeth K. Hawthorne Women in Cybersecurity Scholarship          The Walter Hazard Family Scholarship          William R. Hearst Foundations American Honors Scholarship          Professor Donald Hedeem Scholarship          Sherry Heidary Scholarship          Sherry Heidary Veterans Scholarship          Ethel M. Heim – A Friend of the College Scholarship          Everett A. Heim Memorial Scholarship          Hertling/Nickell Family Scholarship          Joseph Hines Public Safety Scholarship          Shirley Hirschfeld Memorial Scholarship          The Hispanic Law Enforcement Association of Union County, Inc.          Ed &amp; Pat Hobbie/Loretta Castaldo, RN, Nursing Scholarship          Phillip Robert Hudak Scholarship          Robert Hudak Memorial Scholarship          Infineum Science &amp; Technology Scholarship          Institute for Intensive English Scholarship          Investors Foundation 1st in the Family Scholarship          Investors Foundation Scholarship for the Future          Sandra Itzkoff Memorial Scholarship          Kenneth W. and Mildred F. Iversen Scholarship          Jacobson Family Scholarship          Jeantus: Lift &amp; Climb Scholarship          Sharon Johnson Educational Excellence Scholarship          Alfred and Caryl Kaercher Scholarship          Kaercher "Bridge Builder" Scholarship          Bonnie Sue Kaplan Memorial Scholarship          The Karma Foundation Scholarship          Sharon Karmazin Scholarship          Leonard James Keating Memorial Scholarship          J.C. Kellogg Foundation Scholarship          Jean Kellogg Scholarship          Kiwanis Luerich Scholarship          The Barbara Ann Kloss Scholarship          Ferdinand Klumpp Scholarship          Fred &amp; Betty Kopf Scholarship          Fred &amp; Betty Kopf Scholarship for Part-Time Students          Fred &amp; Betty Kopf Completion Scholarship          Raymond B. and Lillian B. Krov Scholarship          Esther and Jerome Krueger Scholarship</p>	<p>Catherine &amp; Myron Kuscenko Memorial Scholarship          Harry Lampel Scholarship for Part-Time Students          Dolores M. Lanzner Memorial Scholarship          Robert and Gloria Law Scholarship          Lawrence-Collins Scholarship          The Legacy Scholarship          The Legacy Completion Scholarship          Lessner Family Scholarship          Leigh and Julian Levitt Scholarship          Linden Mayor's Scholarship          Chester Lobrow Scholarship          L'OREAL Scholarship          Richard O. Luster Memorial Scholarship          Dorothy C. Luttgens Scholarship          Rebecca Lydon Memorial Scholarship          MacDonald/McMinn/Whitaker Scholarship.          Dr. Kenneth C. MacKay Memorial Scholarship          Ian MacRitchie Memorial Scholarship          William &amp; Helen MacRitchie Scholarship          The John A. &amp; Ruth Davis Manger Scholarship          Manley-Winsor Foundation Scholarship          Joseph M. Margiotta Award for Excellence in History &amp; the Social Sciences          Harry B. Martin Memorial Scholarship          Judy Danetz Mayer Scholarship          The Phyllis Mayer Memorial Scholarship          John H. and Serena M. McCoy Scholarship          James &amp; Bernice McGowan Memorial Scholarship          Peter J. McGuire Organized Labor Scholarship          Dr. William H. McLean Memorial Scholarship          Elizabeth McMenamin Scholarship for Book Worms &amp; Nerds          Barbara Neblett Memorial Scholarship          Dr. Richard F. Neblett Memorial Engineering Scholarship          Robert Sydney Needham Memorial Scholarship          Christine S. Nelson Scholarship          The New Future Scholarship          New Horizons Endowed Scholarship          New Jersey Student Tuition Assistance Reward Scholarship (NJ STARS)          Newark Beth Israel Hospital School of Nursing Alumnae Assoc. Scholarship          Duane &amp; Joanne Norelli Memorial Scholarship          Northfield Bank Foundation Scholarship          Sue Novak, RN, CHPN Nursing Scholarship          Paul J. O'Keeffe Memorial Scholarship          Edward, Alice &amp; Frances Olszewski Scholarship          Dr. Saul Orkin and Maria Lydia Orkin Memorial Scholarship          Susan Pancurak Memorial Scholarship          Elizabeth M. &amp; Jesse B. Patberg Memorial Completion Scholarship          Pepsi Scholarship          Perry Family Scholarship          Frank J. Peterpaul Scholarship          J.G. Petrucci Company Veterans Scholarship          Vincent C. Piro Memorial Scholarship          Ann M. Poskocil Scholarship          Emil Prazak Memorial Scholarship          PSEG Foundation Scholarship          Public Safety Department Scholarship.          Dominick Quagliato Distinction in Science Award          Raudelunas Family Scholarship          Eleanor B. Reiner Foundation ASL/Deaf Studies Scholarship          The Ann Richards Memorial Scholarship          Andrea and Victor M. Richel Family Foundation Scholarship          Richel-Lepree Family Scholarship          Karen Ritter Women in Computing Memorial Scholarship          Susan Bashe Robertson Memorial Scholarship</p>	<p>The Judy Rouse Memorial Scholarship          The Sabatino Family Scholarship          Schering-Plough Foundation Allied Health Scholarship          Susan R. Schrepfer Memorial 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 Shereshevsky Memorial Scholarship          Taras Shevchenko Scholarship          Dr. Anthony Signorelli Memorial Scholarship          Arthur, Caroline &amp; George Small Memorial Scholarship          Roy W. Smith Memorial Scholarship          Dr. Wallace Smith &amp; Lisa Chambers Smith Scholarship          Southpole Foundation Scholarship          Rosa Bello Spina Memorial Scholarship          SSBH Scholarship          Sophie and Nicholas Stefiuk Scholarship          Student Government Association Scholarship          Student Government Association Academic Scholarship          Student Government Association Participation Scholarship          Student Government Association Partnership for the Future Scholarship          Student Government Association Part-Time Scholarship          Student Support Services Scholarship          Margaret Sweeney Memorial Scholarship          TD Bank Scholarship          Vito Todaro &amp; Joseph Bent Scholarship          UBS Westfield Scholarship          Union County College Foundation Partnership for the Future Scholarship          Union County College Foundation Scholars          Union County College Foundation Scholarship for International Students          Union County College Foundation Scholarship for Part-Time Students          Union County College Law Enforcement Scholarship          Union County College Physical Plant Association Scholarship          Union County Freeholders Scholarships          Dean S. Van der Clute Scholarship          Donald and Leona Van Gordon Nursing Scholarship          Madeline M. and Anthony A. Vertelis Scholarship          Wakefern/ShopRite LPGA Classic Scholarship          John Allison Ward Memorial Scholarship          Sherry Warman Scholarship          Weidenburner Family Scholarship          Judge Chester and Emily Weidenburner Scholarship          The Harry and Travis Weinberger Paramedic Scholarship          Wells Fargo Scholarship          William West Scholarship          Westfield Foundation Scholarship          Westfield Rescue Squad EMT Opportunity Scholarship          Westfield Rescue Squad Paramedic Scholarship          Frederick R. Wiehl Memorial Scholarship          Lenny Andre Williams Scholarship          Sturgis Wilson Memorial Scholarship          Doris Kiefer Wolf Memorial Scholarship          Professor Elmer Wolf Scholarship          Louise Yohalem Scholarship          Yehoshua (Joe) Yosifon &amp; George L. Patchell Scholarship          Zimmermann Family Scholarship          Cynthia Ziolkowski-Angus Memorial Scholarship          Maria &amp; Bruno (Bud) Ziolkowski Scholarship          George P. Zirnite Memorial Scholarship Award          Jack Zissel Memorial Scholarship</p>
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# 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 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 want 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 comprehensive quality resources to our students. Staff are available to assist you with academic advising, career assessment, transfer services, and crisis referral services. Whether you are pursuing an Associate in Arts or an Associate in Science degree on your path to a four year school or would like to obtain a Certificate or Associate in Applied Science degree in a career program, we will help you navigate the degree requirements of your program. Our purpose is to help you meet your educational goals and objectives through proactive advising guided by educational planning from your first semester through graduation.

### Academic Advising

Academic Advising is a process in which you are assisted in making educated decisions to help you progress through your program and succeed academically. Specific services include:

- New Student Orientation
- Educational Planning
- Review of Programs of Study and Selection of Academic Program
- Career Advisement
- Program Evaluation and Degree Audit
- Student Planning and Self-Service Registration Assistance
- Monitoring Academic Progress

### Transfer Services

Students interested in obtaining an associate degree and transferring to another college for a bachelor's degree may receive guidance on streamlining the process through the following services:

- NJ Transfer Workshops: Navigating [njtransfer.org](http://njtransfer.org)
- On-site Admission/Instant Decision Days
- Scholarship Information Available to Transfer Students
- Transfer Fairs
- Transfer Resources

**To learn more about Advising, Career and Transfer services, contact us at [advising@ucc.edu](mailto:advising@ucc.edu).**

## Crisis Referral Services

Students in crisis may consult with the College's Student Services Specialist Social Worker, who can make referrals to community resources based on your needs. The Social Worker is available to meet with you to help with issues such as food stamps, housing/rental assistance/shelter, domestic violence, behavioral health, substance abuse, utility assistance, Medicaid, child support, support groups and medical insurance. Students may be seen on a walk-in basis or by making an appointment by emailing [socialworkservices@ucc.edu](mailto:socialworkservices@ucc.edu). All meetings are confidential.

## Career Services

The Career Services Center is a comprehensive center for Union County workforce and economic development providing career, internship, and employment services. The Center serves Union County College students, alumni and community residents. The Center is based on the first floor of the Kellogg Building, Room K119, on the Elizabeth Campus. We also offer Career Services at our Cranford Student Services Center and by appointment on the Plainfield campus. Our staff will gladly assist you in following areas:

- Career Advisement and Coaching
- Career Interest Inventories
- Resume and Cover Letter Writing
- Interview Preparation
- Internships and Job Search
- Career Fairs
- Social Media and Networking Opportunities
- Career Closet

To learn more about Career Services, contact us at [careerservices@ucc.edu](mailto:careerservices@ucc.edu).

## Disability Support Services

Union County College is committed to providing a total educational experience for students with disabilities. Disability Support Services is designed to assist students with documented disabilities. The goal is 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 may 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

Accommodations are provided to address the special needs of students with documented disabilities, 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.

To learn more about Disability Support Services, contact us at [disabilitysvc@ucc.edu](mailto:disabilitysvc@ucc.edu).



## 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 85,000 volumes, over 110 periodical subscriptions, 300,000 ebooks, 3,000 video/DVD programs, and more than 30,000 streaming video programs. In addition, the Libraries' more than 90 subscription databases provide access to nearly 75,000 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 targeted to 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. In addition to the library the building also houses the Cranford campus Academic Learning Center, the Innovation Center, the Television Studio, Photography Laboratory and Studio, Graphic Arts Laboratory, Painting and Drawing Studios, classrooms, and the Purchasing department. The third floor has 13 classrooms, an architecture laboratory along with meeting rooms. The MacKay Library has a 107 computer Information Commons. In addition, the Library provides eight group study rooms, a silent study room, an archive of faculty publications and the Ely Stock Memorial Children's collection. The Library also has comfortable seating and individual carrels 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 main level of the newly renovated Annex building. The Information Commons has 50 computers. 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 of resources. 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's 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 Information Literacy 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:

<https://www.ucc.edu/library/>

### Academic Learning Centers

The Academic Learning Centers (ALCs) provide free tutoring for all currently enrolled Union County College students. The ALCs deliver learning opportunities and web-enhanced instruction which focus sharply on student engagement. Students are encouraged to take advantage of the ALC's services whenever they need assistance. 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 main level of the Annex building.

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. Tutors assist not only with course content but also with study skills, including critical thinking. In addition, the ALCs offer online tutoring for selected courses through synchronous live chat and asynchronous environments via a web-based service, 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 and math related subjects. The ALCs also offer workshops throughout the year to help students enhance their skills. Workshop topics include: Algebra review for the Accuplacer exam; Canvas LMS training for students; and other areas essential to student success. In addition, the ALCs offer support to Biology and Chemistry students through the availability of dedicated science resources, such as Collaborative Learning Sessions (CLS) for some courses. These sessions are facilitated by an experienced tutor. During these sessions, students can ask questions, receive help with the concepts they are learning in class, and participate in exciting learning activities.

The ALCs have computer lab 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 products, access Canvas, 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 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, please visit <https://www.ucc.edu/discover-union/academic-learning-center/>, 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 and online. There is also an array of official Union County College clothing, gifts, technology and snacks. As payment, the Bookstores accept cash, credit, checks and financial aid.

## 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 10 is available at the desktop in all 80 computing labs, 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 catalog is available from any computer with Internet access.

Each student is provided with access to web services through the Owl's Nest portal, via web browser or mobile application. Students are also provided with 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, 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 IT Department. 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, hardware/software support, and mobile device support can all be accommodated by the IT help desk. The IT help desk may be reached at [techsupport@ucc.edu](mailto: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 in the Student Services Center to insure that the plan meets College guidelines.
- Students are required to complete and sign a Statement of Responsibility for Financial Obligations at the Student Services Center.
- 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 Commander's 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 first day of class 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 Department.
- 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 first day of class 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.

## 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](http://www.irs.gov)
- The information on the form complies with IRS regulations. Amounts are reported in the calendar year in which the transactions occurred, which is not necessarily the same as the year in which the courses were taken.

## 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 first day of class 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 for credit classes should plan on registering well in advance of the start of the semester to insure that their contract is in place.
- Students must have the appropriate forms and a fully executed contract at time of registration.
- Students should be aware of program limitations as some costs might not be covered.

## 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 and recover stolen property when possible.
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.

### 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 criminal investigation: Murder, Rape, Robbery, Aggravated Assault, Burglary, Motor Vehicle Theft, Liquor Law Violations, Drug Abuse Violations, Weapons Possession. CAMPUS CRIME STATISTICS ARE PUBLISHED IN THE ANNUAL SECURITY REPORT AND DISTRIBUTED TO ALL APPLICANTS UPON REQUEST. In compliance with the Student Right to Know and Campus Security Act, crime statistics are reported to the U.S. Department of Education. Tools are available online to analyze campus safety and security at <http://ope.ed.gov/campusafety/#/>. In compliance with the Federal Campus Sex Crimes Prevention Act and relevant New Jersey Law, information regarding the enrollment of convicted sex offenders is available online at <http://www.njsp.org/sex-offender-registry/index.shtml>.

### Emergency notification system sign-up

At the start of each semester all currently enrolled students as well as staff and faculty are automatically enrolled in the emergency notification system. If you wish to sign up manually, be advised opt-in list are purged at the end of every semester. To receive (REGROUP) alert messages, you must sign up at the following hyper link: <https://ucc.reggroup.com/signup>.

### 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.



**U** **UNION**  
**COUNTY**  
**COLLEGE**

**Transforming  
Our Community...  
One Student  
at a Time**

# 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 in order 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 participate in an 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. 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, pictures, 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.

An 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:

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

### 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, or 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 course 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. In the event of an extended absence (3 or more days), the Dean’s office should be contacted.

### 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 earn 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](http://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 may be viewed at [www.ucc.edu/testing](http://www.ucc.edu/testing). Transfer credits earned by way of successfully passing CLEP examinations count toward the maximum number of transfer credits 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 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 Testing Center on the Cranford campus. If you are a Union County College student, please go to [www.CLEP.com](http://www.CLEP.com) to 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 your ticket. You will need to bring this ticket and a government issued ID with you when you take the test. Call the Testing Center at 908-709-7486 to schedule the date and time of your CLEP test or email [testingcenter@ucc.edu](mailto:testingcenter@ucc.edu) for a current schedule.

## 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 terms, an 11-class winter session, 13-week Saturday or Sunday sessions, and 11- or 12-week Later Start classes, which begin in the third week of each fall and spring semester. All scheduling options include an additional final exam week 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. Both courses will remain on the transcript.

### Course Substitutions

Students may request a course substitution if the required course needed for graduation is not available. Course substitutions are given at the discretion of the Division Dean. It is strongly recommended that students obtain course substitutions before registering for the substitute course. The substituted course will appear on the student's transcript. If the substitution requires approval from more than one Academic Division, the substitution form must be signed by both Academic Deans. The Vice President for Academic Affairs reviews all requests for final approval. All substitutions 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 for approval 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 in cases of extenuating circumstances approved by the 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](http://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 Muhlenberg Snyder Schools, Trinitas School of Nursing, or Rutgers SHP 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 each year; 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 ensure that they have secured written approval from Admissions to transfer courses back to Union County College. The transfer credits must be approved by the Dean.

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 four commencement ceremonies each year, two in January and two 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 at 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. Student 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](http://www.ucc.edu), or by visiting the National Student Clearinghouse at [www.ucc.edu/](http://www.ucc.edu/). 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 modes 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 the 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 John H. Stamler Police 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 Technology program at Union County College. Each program has designated credits which will be granted – Police Academy up to 17 credits, Fire Academy 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 date set in the College's Academic 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.

Refund and withdrawal eligibility will be based upon the date on the drop/add or withdrawal forms. 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's Academic 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's Academic Calendar, which is available at [www.ucc.edu](http://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, the Union County Freeholders' Senior Scholars, and College for Teens programs.

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 off-site locations. In addition, courses are offered on-line. Currently, among the Continuing Education Department offerings are non-credit certificate programs in Six Sigma, Real Estate Sales, Certified Pharmacy Technician, Child Development Associate (CDA) Program, Human Resource Management, Uniform Construction Code, and Medical Billing and Coding Professional. Industry-recognized certificate programs are also available in Certified Bookkeeper, CISCO Certified Networking Associate (CCNA), Personal Trainer National Certification, Patient Care Technician, Certified Phlebotomy Technician, Certified EKG Technician, CompTIA A+ Hardware and Software and Network +, Facility Management Professional, Supply Chain Management, and the American Society of Administrative Professionals – Professional Administrative Certification of Excellence (PACE).

Youth programs are offered on Saturdays during the spring and fall on a variety of topics such as SAT Preparation, reading and math enhancement. In addition, the department offers a wide variety of half day programs during the summer. College for Teens is a career-oriented program that provides career exploration training for teens funded by the Union County Board of Chosen Freeholders. Continuing Education operates as a Cisco Networking Academy. We provide extensive preparation for the CISCO Certified Networking Associate (CCNA) designation. Also offered is the New Pathways to Teaching in New Jersey (NPTNJ) program in conjunction with New Jersey City University. NPTNJ is an alternate route New Jersey teacher certification program. Students are able to obtain New Jersey teacher certification upon completion of the program. For further information, write, email, or call the Continuing Education Department at Union County College, 1033 Springfield Avenue, Cranford, NJ 07016, [coned@ucc.edu](mailto:coned@ucc.edu), (908) 709-7600.

## Industry-Business Institute

The Industry-Business Institute (IBI) at Union County College works with employer clients to help build a skilled workforce by providing workplace-specific, customized education and training programs to develop employees.

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. Training is available fee for service to employers and through local and state grant opportunities. IBI provides companies with comprehensive assistance in securing and administering NJ Skills Partnership and other training grants. IBI can provide many types of workforce development programs because of our wide network of industry professionals and instructors. IBI provides customized training programs in topics including, but not limited to:

- Cultural Diversity and Harassment Prevention Awareness
- Management, Team Building, Problem Solving and Supervision Skills
- Communication and Personal Effectiveness Skills
- Industrial Maintenance and Manufacturing Skills
- Workplace Literacy/Basic Skills
- Quality Practices
- Safety Procedures
- Supply Chain Management/Transportation, Logistics, and Distribution
- Lean Six Sigma
- Customer Service
- Time Management
- Conflict Resolution
- and more...

For more information, please contact Union County College, Industry-Business Institute, 40 West Jersey Street, 5th Floor, Elizabeth, NJ 07202, (908) 527-7207 or (908) 965-2359.

## Center for Economic and Workforce Development

The Center for Economic and Workforce Development (CEWD) provides training and support services to help unemployed and underemployed individuals to be better positioned to enter and compete in today's workforce as well as develop lifelong learning skills.

The Center offers a wide variety of programs and courses to over 4,000 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 with 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 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:

- **ABLE Plus:** This WIOA Title II program offers career pathway ESL, Integrated ESL and Civics Education, Adult Basic Skill development and High School Diploma (HSD) preparation to eligible residents. These educational programs are funded through the State of New Jersey Labor and Workforce Development.
- **To-Work /Community Work Experience Program:** This program provides eligible WFNJ 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. This program must 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 levels where they will be able to meet the requirements for the Institute for Intensive English (IIE). The two beginning levels of English as a Second Language (ESL) support the development of English proficiency skills and move students from the lowest levels of English to levels 3 to 6 of the Institute for Intensive English. 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. In conjunction with each classroom lesson, there is an opportunity for students to review and reinforce the concepts presented

through the use of ESL software available in the state-of-the-art computer labs. Upon completion of the final course of the Level 2 program, instructor recommendations, post-test scores, and the course final grade will determine if students move from the Center to the IIE Level 3 credit program.

- **Occupational Training:** The Center provides occupational training programs that lead to industry credentials in demand occupations such as

- Medical Billing Specialist
- Medical Coding Specialist
- Computerized Office Skills
- Administrative Assistant
- Accounting Technician
- Patient Care Technician
- Welding
- Essentials of Supply Chain Management

These programs are offered to One Stop Career Center eligible participants (i.e., WIOA, TRA, DVRS and WDP participants) or to individuals who wish to pay. Industry-valued credentials will be earned through these programs.

- **Youth Programs:** The Center has been instrumental in the implementation of the Elizabeth New Jersey Youth Corps. This program provides at-risk youth (ages 17 to 24) the opportunity to develop occupational skills and/or Basic Skills toward a High School Diploma as well as the opportunity to develop an interest in and support community projects.

For more information on the Center for Economic and Workforce Development programs call 908-659-5114 or email CEWD-Recruiting with inquires: CEWD-Recruiting@ucc.edu

In conjunction with an experienced administrative, support staff and qualified instructors, the Center has an active Job Development team who work with local employers to identify qualified candidates. The team supports our students in seeking and obtaining employment with these employers. 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' clients and Union County residents. Additionally, the College, through the Center for Economic and Workforce Development, Continuing Education and Industry-Business Institute departments, supports the implementation of the Workforce Innovation Business Center initiative through the Union County Workforce Development Board.





**NIKE**  
AIR **U** **UNION**  
COUNTY  
COLLEGE

**Transforming  
Our Community...  
One Student  
at a Time**

# 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, 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.

Contact an American Honors Admissions Officer ([honors@ucc.edu](mailto:honors@ucc.edu)) 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 [www.ucc.edu/honors](http://www.ucc.edu/honors) or contact an American Honors Admissions Officer at [honors@ucc.edu](mailto:honors@ucc.edu).

## 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 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 ENG 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 success at Union County College. New Student Orientation (NSO) is required for all first-time, full-time students entering the college during the Fall or Spring semesters. 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, meet other students, 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 (EOF) Program at Union County College is to provide students from disadvantaged communities, who demonstrate the potential for academic success, an opportunity to attend college. Our purpose is to help students successfully graduate and transfer students to four-year institutions, as well as provide 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 a 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-\$575 a semester

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 2019-20 Academic Year as defined by the State of New Jersey Office of the Secretary of Higher Education – ([www.state.nj.us/highereducation/EOF/EOF\\_Eligibility.shtml](http://www.state.nj.us/highereducation/EOF/EOF_Eligibility.shtml))
- Be a full-time student (minimum 12 credits) for the semester of consideration for EOF
- Be a New Jersey resident for at least one year prior to enrollment
- Complete the 2019-20 Free Application for Federal Student Aid (FAFSA) – ([www.fafsa.gov](http://www.fafsa.gov))
- Be eligible for state aid from the NJ Higher Education Student Assistance Authority – ([www.hesaa.org](http://www.hesaa.org))
- Have taken the Accuplacer Placement Test and placed into ENG 096 or higher; or ESL placement level 5 or 6
- For current students, have a minimum 2.5 GPA (including any developmental courses) and no more than 30 college credits



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. The EOF application can be downloaded from the following sites:

- EOF Summer Program – <https://www.ucc.edu/admissions/educational-opportunity-fund/>
- EOF Academic Year – EOF Owl's Nest site — Union County College Portal > Student Development > Educational Opportunity Fund (EOF) > Apply for EOF

Priority for acceptance into the EOF Program is given to first-time, full-time college students.

To learn more about the Educational Opportunity Fund Program, contact us at (908) 709-7088 or email us at [eof@ucc.edu](mailto:eof@ucc.edu).

## 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 of 18 college credits are eligible to be members. The 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 credits 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 (AAfPE), the society offers national scholarship opportunities, participation in regional, state and local conferences, and networking opportunities. Candidates for membership in Lambda Epsilon Chi must be in good academic standing and have completed at least two-thirds of their paralegal coursework. Candidates also must have a cumulative GPA of 3.5 or higher.

## NJ 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 & Reading

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 Advanced Algebra & Functions (AAF) 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 may take an exam to test out of the sequence. Although this happens in rare cases, students should expect to take all the courses in the sequence and plan their semesters accordingly.

ENG 087 is a prerequisite for ENG 096 so students who are required to take ENG 087 will only be able to take other courses that do not require ENG 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 112

\* 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 can 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 content area courses, depending on a student's level:

### Level 3 Students:

Mathematics courses with special permission only and based on major or Accuplacer score. ADM 101 – Keyboarding for the Computer I PED 101 – Concepts of Adult Fitness;

### Level 4 Students:

Mathematics courses based on Math placement test or progression through courses. ADM 102 – Keyboarding for the Computer II, CST 100 – Introduction to Computer Applications;

### Level 5 Students:

FIA 107 – Introduction to Dance, FIA 109 – Introduction to Drawing, FIA 110 – Introduction to Painting, MET 109 – Computer-Aided Drafting, EGG 111 – Engineering & Computer Graphics, HSM 100 – Introduction to the Hospitality Industry, 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 – Introduction to Criminal Justice, ADM 140 – Customer Service, PSY 101 – General Psychology, SOC 101 – Principles of Sociology, SCM 101 – Supply Chain Management, 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 the 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 an educational experience that is equivalent to traditional courses. Distance learning courses cover the same 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.

### Why study online?

- Convenience
- Flexibility
- Accessibility
- Improve technical skills
- Avoid commuting
- Career Advancement

### Who studies online?

- Working men and women
- Adult learners
- Single and stay at home parents
- Job candidates
- Active military deployed overseas
- Veterans
- Traditional students

### Is online learning a good fit for you?

- Are you self-disciplined and motivated?
- Are you able to commit time each day or week to your online course(s)?
- Do you have good reading, writing, and communication skills?
- Are you comfortable seeking help when needed?
- Will you miss the experience of sitting in a classroom?
- Are you comfortable using computers?

### Degrees offered fully online:

- Business, AA
- Business Management, AAS
- Computer Information Systems & Technology, AS
- Criminal Justice, AS
- Criminal Justice, Certificate
- Liberal Arts, AA
- Liberal Studies, AS
- Liberal Studies, Certificate
- Public Administration, AA
- Psychology, AA
- Social Services, AS
- Sociology, AA

### Online course:

- Offered entirely online with no on campus requirements; no set meeting time
- Requires the use of a computer (Windows 7 & above; iOS Mavericks 10.9 and newer)
- HD 128 X 720p Camera/Microphone (built in or add on)
- Assignments and assessments have specific due dates
- Requires students to verify identity using digital imaging, photo ID, and a knuckle scan
- Requires students to submit verified assignments using specialized software
- May require the use of third party course packages, web based tools, etc.
- Section numbers: Regular Start: 300, 301, 302 (Example: CST-100-300); Late Start: 310, 311 (CST-100-310)

### Verification and Online Integrity

- Online students are required to provide photo ID and a knuckle scan during the first week of classes
- All online students must verify their identity once a year
- Students need to verify only once per year; it applies to all online courses
- Students can participate in their online course while verification is being processed
- Questions about student identification and verification should be directed to the Distance Education department, (908) 497-4364.

### Fees:

There may be additional fees for online courses.

### Do I have to be a computer expert to take an online 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. Smart phones and tablets may not be suitable for your course. Students need daily access to the internet, a working computer camera, and a working computer microphone. Students must have a photo ID and produce a knuckle scan to verify identity. Courses are held entirely online.

### FERPA and ADA:

All online 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](mailto: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 fulfill all the necessary criteria of the joint admissions program.

## Georgian Court University

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

## Kean University

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

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](http://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.



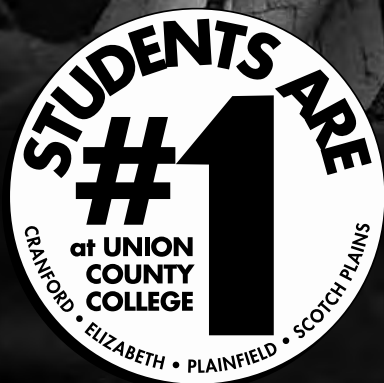


## Transfer/Articulation Agreements

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)
- **Moravian College**, Bethlehem, PA
- **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.



# PROGRAMS OF STUDY

Union 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 corequisites.

## 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.

## MILESTONES

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

Career and Transfer Information  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## 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:

- 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
- Psychology, option offered through Liberal Arts
- Public Administration, option offered through Business
- Sociology, option offered through Liberal Arts
- Theater Arts, 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 Muhlenberg Harold B. and Dorothy A. Snyder Schools
- Nursing, Trinitas School of Nursing
- Psychosocial Rehabilitation and Treatment
- Radiography, Amplified Program, JFK Muhlenberg Harold B. and Dorothy Snyder Schools
- Sonography, Diagnostic Medical, JFK 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
- Medicinal Plant Chemistry, option offered through Biology
- Paralegal Studies
- Social Services
- Sport Management

## ASSOCIATE IN SCIENCE – A.S. cont'd

- Supply Chain Management
- 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
- Cyber Forensics
- Drone Design and Applications, option offered through Engineering Technology
- Engineering Technology
- Fire Science Technology
- Game Design and Development
- Hotel, Restaurant, and Tourism Management
- Paramedic Emergency Health Science, Robert and Freda Brown Paramedic Program
- Physical Therapist Assistant
- Respiratory Care
- Technical Studies

## CERTIFICATE – CT.

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
- Emergency Medical Studies
- Interpreting Spoken Language
- Liberal Studies
- Photovoltaic (PV)
- Practical Nursing
- Remote Pilot and Drone Application

## CERTIFICATE OF ACHIEVEMENT – CT.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
- Homeland Security
- Paralegal Studies
- Supply Chain Management

### 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.

## ALPHABETICAL PROGRAM LIST

Accounting	.56
American Sign Language and Deaf Studies	.57, 58
Architecture	.60
Audio Production	.61
Automotive Technology	.62
Biology	.63
Business	.64
Business Management	.65
Business Marketing	.66
CAD-CAM	.67
Chemistry	.68
Communications	.69
Computer Information Systems and Technology	.70
Computer Science	.71
Computer Science/Engineering	.72
Criminal Justice	.73, 74
Cyber Forensics	.75
Cybersecurity	.76
Drone Design and Applications	.77
Early Childhood	
Elementary Education	.79
Education	.80

Educational Interpreter Program (EIP)	.81
Emergency Medical Studies	.82, 83
Engineering	.84
Engineering Technology	.85
English	.86
Fire Science Technology	.87
Game Design and Development	.88
Graphic Design	.89
Health Science	.90
History	.91
Homeland Security	.92
Hotel, Restaurant, And Tourism Management	.94
Interpreting Spoken Language	.95
Journalism And Public Relations	.96
Liberal Arts	.97
Liberal Studies	.98, 99
Mathematics	.100
Mathematics Major Education Option	.101
Media	.102
Medicinal Plant Chemistry	.103
Cooperative Programs In Professional Nursing	.105
Nursing, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools	.106, 107
Nursing, Trinitas School of Nursing	.108, 109
Office Professional	.110
Paralegal Studies	.111, 112
Paramedic Emergency Health Science	.113, 114
Photovoltaic (PV)	.115
Physical Therapist Assistant	.116
Practical Nursing	.117
Psychology	.118
Psychosocial Rehabilitation and Treatment	.119
Public Administration	.120
Radiography	.121, 122
Remote Pilot and Drone Application	.124
Respiratory Care	.125
Social Services	.126
Sociology	.127
Diagnostic Medical Sonography	.128, 129
Sport Management	.130
Supply Chain Management	.131, 132
Sustainability Science	.133
Technical Studies	.134
Theater Arts	.135
Visual Arts	.136

# 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
<b>Communication</b> (Written and Oral Communication)	9	6	6	3
<b>Mathematics – Science – Technology</b> <b>Mathematics</b> 3-8 cr. (Quant. Knowledge and Skills) <b>Science</b> 3-8 cr. (Sci. Knowledge and Reasoning) <b>Technology</b> 0-4 cr. (Technology)	12	9	3	3
<b>Social Science</b> (Society and Human Behavior)	6	3	3	
<b>Humanities</b> (Humanistic Perspective)	9	3		
<b>History</b> (Historical Perspective)	6			
<b>Diversity Courses</b> (Global and Cultural Awareness)	3			
<b>Unassigned General Education</b>		6	8	
<b>General Education Total</b>	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 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

**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 229** Introduction to Shakespeare

**FRE 111** Intermediate French I  
**FRE 112** Intermediate French II  
**FRE 121** Advanced French I  
**FRE 122** Advanced French II  
**GER 101** Beginning German I  
**GER 102** Beginning German II  
**HIS 101** Introduction to Western Civilization I  
**HIS 102** Introduction to Western Civilization II  
**HIS 103** Introduction to World History I  
**HIS 104** Introduction to World History II  
**HIS 105** Afro-American History I  
**HIS 106** Afro-American History II  
**HIS 201** United States History to 1865  
**HIS 202** United States History Since 1865  
**HIS 209** Twentieth Century European History

This page has been revised.  
 Click here for the UPDATED page.

**FIA 105** Music Appreciation  
**FIA 108** Appreciation of Art

### 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 225** Women in American History  
**HIS 230** Latin American History  
**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

**FIA 111** Art History Survey I  
**FIA 112** Art History Survey II  
**FIA 117** Survey of Music in the Twentieth Century  
**FIA 124** Theater Appreciation  
**FIA 132** Introduction to Dramatic Literature  
**FIA 220** Introduction to History of Photography  
**FIA 232** Modern and Contemporary Dramatic Literature  
**FRE 101** Beginning French I  
**FRE 102** Beginning French II

**HIS 215** The American Experience in the Twentieth Century  
**HIS 225** Women in American History  
**HIS 230** Latin American History  
**HIS 270** The Classical Heritage of Greece and Rome  
**HIS 270** The Classical Heritage of Greece and Rome  
**HRS 104** Honors Seminar in Interdisciplinary Studies  
**ITA 101** Beginning Italian I  
**ITA 102** Beginning Italian II



# REQUIREMENTS FOR ALL PROGRAMS

## GENERAL EDUCATION cont'd

- 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 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:

#### MATH:

- 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

#### SCIENCE:

- 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  
**BIO 240** Genetics  
**CHE 101** College Chemistry  
**CHE 105** Chemistry-Health Sciences  
**CHE 107** The Chemistry of Forensic Science  
**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  
**GEY 101** Physical Geology  
**GEY 102** Historical Geology  
**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

#### TECHNOLOGY:

- 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

#### SOCIAL SCIENCE COURSES:

- ECO 201** Principles of Economics I  
**ECO 202** Principles of Economics II  
**GEO 201** World Geography  
**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.

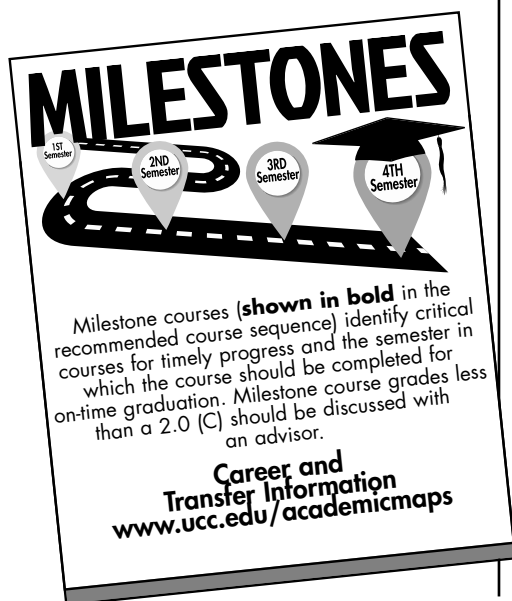
## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 119</b>	<b>Algebra</b>	<b>4</b>
<b>ACC 103</b>	<b>Accounting I</b>	<b>3</b>
BUS 105	Organization and Management	3
CST 100	Introduction to Computer Applications	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 122	Introductory Technical and Business Writing	3
ECO 201	Principles of Economics I	3
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
<b>ACC 104</b>	<b>Accounting II</b>	<b>3</b>
<b>Semester Total:</b>		<b>13</b>

### SECOND YEAR

<b>FALL SEMESTER</b>		
COURSE#	COURSE	Cr.
<b>ACC 203</b>	<b>Intermediate Accounting I</b>	<b>3</b>
ACC 211	Federal Taxes I	3
BUS 201	Business Law I	3
ACC 210	Microcomputers in Accounting	3
Humanities	(Must be chosen from Literature, Fine Arts, History, <b>OR</b> Modern Languages)	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ACC 204	Intermediate Accounting II	3
ACC 205	Cost Accounting	4
ACC 212	Federal Taxes II	3
ACC 290	Co-op Education Experience in Accounting	3
BUS 202	Business Law II	3
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>



# AMERICAN SIGN LANGUAGE AND DEAF STUDIES

## ASSOCIATE IN SCIENCE DEGREE



The American Sign Language and Deaf Studies Degree Program is designed for individuals who do not have a college degree and are interested in the field of Deaf Studies, Linguistics, communications, psychology, social work, rehabilitation, education of the Deaf and other related areas. The program provides a multi-disciplinary and interdisciplinary approach in American Sign Language and Deaf Studies. Areas of scholarly pursuit include cultural and historical studies, linguistics, psychology, and social work. 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 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 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
<b>ASL 101</b>	<b>American Sign Language I</b>	<b>3</b>
ASL 102	Visual-Gestural Communication 2	2
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
SOC 102	Social Problems	3
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
<b>ASL 103</b>	<b>American Sign Language II</b>	<b>3</b>
ASL 104	ASL Classifiers	2
HUD 104	Fingerspelling	1
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
Lab Science	Gen Ed Requirement	4
<b>ASL 200</b>	<b>Academic American Sign Language</b>	<b>3</b>
ASL 201	American Sign Language III	3
ASL 205	Linguistics of American Sign Language	3
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
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	Gen Ed Requirement	3
COM 100	Communications Technologies	4
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>

# AMERICAN SIGN LANGUAGE AND DEAF STUDIES

## CERTIFICATE

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

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

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

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

- Demonstrate proficiency in the use of American Sign Language and English with members of the Deaf community;
- Demonstrate knowledge of the studies of American Sign Language as a distinct modern language;
- Employ scholarly pursuit of cultural and historical studies;

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

### PROGRAM REQUIREMENTS:

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

Conferences with respective instructor(s) 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.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
<b>ASL 101</b>	<b>American Sign Language I</b>	<b>3</b>
ASL 102	Visual-Gestural Communication	2
<b>Semester Total:</b>		<b>8</b>
<b>SPRING SEMESTER</b>		
Humanities	Gen Ed Requirement	3
<b>ASL 103</b>	<b>American Sign Language II</b>	<b>3</b>
ASL 104	ASL Classifiers	2
HUD 104	Fingerspelling	1
<b>Semester Total:</b>		<b>9</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
<b>ASL 200</b>	<b>Academic American Sign Language</b>	<b>3</b>
ASL 201	American Sign Language III	3
ASL 205	Linguistics of American Sign Language	1
<b>Semester Total:</b>		<b>7</b>
<b>SPRING SEMESTER</b>		
ASL 202	American Sign Language IV	3
ASL 208	American Deaf Culture and History	3
ASL 210	American Sign Language and Deaf Literature	3
<b>Semester Total:</b>		<b>9</b>
<b>Total Program Credits:</b>		<b>33</b>



Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>



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**NJCAA Division II National Runner Up**

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# 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.

### MILESTONES

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 143</b>	<b>Elementary Mathematical Analysis I</b>	<b>4</b>
<b>ARC 101</b>	<b>Architectural Design I</b>	<b>5</b>
ARC 105	Introduction to Architecture and Culture	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
MAT 144	Elementary Mathematical Analysis II	4
<b>PHY 101</b>	<b>General Physics I AND</b>	<b>3</b>
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
<b>ARC 102</b>	<b>Architectural Design II</b>	<b>5</b>
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
FIA 108	Appreciation of Art	3
<b>FIA 119</b>	<b>Introduction to Architectural History</b>	<b>3</b>
	Social Science Gen Ed Requirement	3
ARC 205	Architectural CAD Design	3
ARC 218	Construction Methods and Materials	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
FIA 120	Architectural History	3
ARC 206	Architectural 3D Design	3
ARC 210	Portfolio Development and Presentation Methods	2
	Humanities Gen Ed Requirement	3
	Social Science or Humanities Gen Ed Requirement	3
<b>Semester Total:</b>		<b>14</b>
<b>Total Program Credits:</b>		<b>60</b>

### 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.

# AUDIO PRODUCTION

## CERTIFICATE



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

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

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

- Recount the history of audio recording technology;
- Conduct research, understand the importance of qualifying source material, using time honored structures such as peer review and disciplinary standards;
- Demonstrate an understanding of the recording industry as a business;
- Demonstrate a level of comfort and proficiency with standard productivity software such as Adobe Audition, Cubase SX and Pro Tools, as well as an understanding of the ways in which these tools are applied in the audio production field;

- Understand and apply all phases of audio production in the contemporary music studio environment;
- Identify the fundamental process and sequence involved in the production of audio composition;
- Identify the different roles and responsibilities of the recording studio staff members;
- Identify the historical development of musical performance;
- Understand the essentials of audio engineering, the fundamentals of digital imaging and video editing for New Media applications.

## RECOMMENDED SEQUENCE

### FIRST YEAR

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

### SECOND YEAR

<b>FALL SEMESTER</b>		
<b>COM 213</b>	<b>Audio Production II</b>	<b>3</b>
COM 209	The Evolution of Film	3
<b>Semester Total:</b>		<b>6</b>
<b>SPRING SEMESTER</b>		
HIS 101	Introduction to Western Civilization I	3
COM 216	Digital Video Editing and Multimedia Imaging	3
<b>Semester Total:</b>		<b>6</b>
<b>Total Program Credits:</b>		<b>31</b>

## AFTER UNION COUNTY COLLEGE

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



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

# AUTOMOTIVE TECHNOLOGY

## ASSOCIATE IN APPLIED SCIENCE



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

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

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

- Demonstrate theoretical and practical competency in each of the ASE areas covered within the Automotive Technology Curriculum;
- 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 & 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	Social Science Gen Ed Requirement	3
MAT 113	Math Applications	3
<b>AUT 100</b>	<b>Automotive Fundamentals</b>	<b>4</b>
<b>AUT 101</b>	<b>Steering/Suspension Systems</b>	<b>4</b>
<b>Semester Total:</b>		<b>17</b>
<b>SPRING SEMESTER</b>		
ENG 122	Introductory Technical and Business Writing	3
CST 100	Introduction to Computer Applications	3
<b>AUT 103</b>	<b>Brake Systems</b>	<b>4</b>
<b>AUT 121</b>	<b>Automotive Electrical 1</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
	Humanities Gen Ed Requirement	3
AUT 122	Automotive A/C & Heating	4
<b>AUT 131</b>	<b>Automotive Engine Performance 1</b>	<b>4</b>
AUT 201	Engine Repair	4
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
AUT 202	Automotive Electrical 2	4
AUT 204	Automotive Drivetrains	4
AUT 232	Automotive Engine Performance 2	3
	Gen Ed Requirement	3
<b>Semester Total:</b>		<b>14</b>
<b>Total Program Credits:</b>		<b>60</b>



# BIOLOGY

## ASSOCIATE IN SCIENCE DEGREE



Biology is a natural science that studies life and living organisms. This Associate of Science in Biology program at Union County College, which includes courses in biology, chemistry, mathematics, and liberal arts, is designed for transfer to a bachelor's program in biology or another closely related discipline. The biology program includes opportunities to engage in undergraduate research and to publish in academic journals. These experiences provide students with training in the scientific method and an introduction to research techniques, preparing them for transfer to competitive schools in the tri-state and across the country.

The College has articulation agreements with four-year colleges in New Jersey and beyond. Students should work with a transfer advisor for more information.

### MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

**This program assumes the completion of all prerequisites for the mathematics courses or satisfactory performance on the Advanced Algebra & Functions exam.**

All students enrolled in the Biology program are encouraged to take the Advanced Algebra & Functions exam to determine advanced mathematics placement. Test scores will determine the sequence of mathematics courses required.

Contact the STEM Division for further information.

**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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 143</b>	<b>Elementary Mathematical Analysis I</b>	<b>4</b>
OR		
<b>MAT 171</b>	<b>Unified Calculus I</b>	<b>4</b>
<b>BIO 111</b>	<b>General Biology I</b>	<b>4</b>
<b>CHE 111</b>	<b>General Chemistry I</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
MAT 144	Elementary Mathematical Analysis II	4
OR		
MAT 172	Unified Calculus II	4
<b>BIO 112</b>	<b>General Biology II</b>	<b>4</b>
<b>CHE 112</b>	<b>General Chemistry II</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
Humanities Gen Ed Requirement		3
Social Science Gen Ed Requirement		3
<b>CHE 211</b>	<b>Organic Chemistry I</b>	<b>5</b>
BIO	Elective	4
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
Humanities Gen Ed Requirement		3
OR		
Social Science Gen Ed Requirement		3
CHE 212	Organic Chemistry II	5
BIO	Elective	4
CST	Elective	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

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

## 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.

### MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	History Gen Ed Requirement	3
<b>MAT 119</b>	<b>Algebra</b>	<b>4</b>
<b>BUS 101</b>	<b>Introduction to Contemporary Business</b>	<b>3</b>
	OR	
<b>BUS 105</b>	<b>Organization and Management</b>	<b>3</b>
CST 100	Introduction to Computer Applications	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	Humanities Gen Ed Requirement	3
	History Gen Ed Requirement	3
	Social Science Gen Ed Requirement	3
<b>MAT 143</b>	<b>Elementary Mathematical Analysis I or Higher Level Math</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
	Humanities Gen Ed Requirement	3
	Social Science Gen Ed Requirement	3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>ACC 103</b>	<b>Accounting I</b>	<b>3</b>
<b>Semester Total:</b>		<b>13</b>
<b>SPRING SEMESTER</b>		
BUS 201	Business Law I	3
ACC 104	Accounting II	3
ENG 128	The Dynamics of Communication	3
	OR	
ENG 129	Public Speaking	3
	Humanities Gen Ed Requirement	3
	Diversity Gen Ed Requirement	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* Check with the requirements of transfer institution.

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

# BUSINESS MANAGEMENT

## ASSOCIATE IN APPLIED SCIENCE DEGREE



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

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

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

## AFTER UNION COUNTY COLLEGE

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

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
MAT 113	Math Applications	3
PSY 101	General Psychology	3
<b>OR</b>		
SOC 101	Principles of Sociology	3
<b>ACC 103</b>	<b>Accounting I</b>	<b>3</b>
<b>BUS 101</b>	<b>Introduction to Contemporary Business</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
CST 100	Introduction to Computer Applications	3
Gen Ed Requirement		3
<b>ACC 104</b>	<b>Accounting II</b>	<b>3</b>
<b>BUS 105</b>	<b>Organization and Management</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>

#### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
<b>BUS 107</b>	<b>Human Resources Management</b>	<b>3</b>
BUS 115	Personal Finance	3
ECO 201	Principles of Economics I	3
BUS 201	Business Law I	3
BUS 208	Principles of Marketing	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ECO 202	Principles of Economics II	3
<b>BUS 200</b>	<b>Small Business Management</b>	<b>3</b>
BUS 202	Business Law II	3
BUS 205	Principles of Finance	3
BUS 210	Marketing and the Global Environment	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

# 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
ENG 129	Public Speaking	3
PSY 101	General Psychology	3
MAT 113	Math Applications	3
<b>BUS 101</b>	<b>Introduction to Contemporary Business</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
SOC 101	Principles of Sociology	3
<b>BUS 105</b>	<b>Organization and Management</b>	<b>3</b>
BUS 110	Business and Technology	3
<b>BUS 208</b>	<b>Principles of Marketing</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ECO 201	Principles of Economics I	3
CST 100	Introduction to Computer Applications*	3
<b>ACC 103</b>	<b>Accounting I</b>	<b>3</b>
BUS 201	Business Law I	3
BUS 203	Principles of Advertising	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ECO 202	Principles of Economics II	3
Humanities	Gen Ed Requirement	3
<b>ACC 104</b>	<b>Accounting II</b>	<b>3</b>
BUS 202	Business Law II	3
BUS 210	Marketing and the Global Environment	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

# 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.

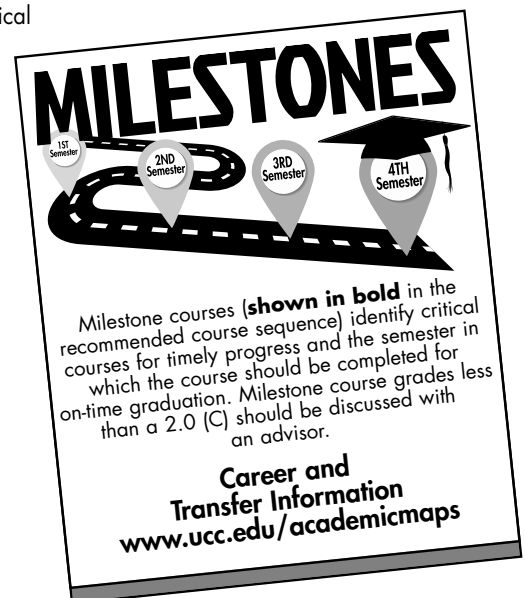
### RECOMMENDED SEQUENCE

#### FIRST YEAR

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

## 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
Humanities	Gen Ed Requirement	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
<b>CHE 111</b>	<b>General Chemistry I</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
<b>CHE 112</b>	<b>General Chemistry II</b>	<b>4</b>
<b>BIO 111</b>	<b>General Biology I**</b>	<b>4</b>
<b>OR</b>		
<b>PHY 111</b>	<b>Mechanics AND</b>	<b>3</b>
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
<b>Semester Total:</b>		<b>15</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
<b>MAT 271</b>	<b>Unified Calculus III</b>	<b>4</b>
<b>CHE 211</b>	<b>Organic Chemistry I</b>	<b>5</b>
<b>BIO 112</b>	<b>General Biology II**</b>	<b>4</b>
<b>OR</b>		
<b>PHY 201</b>	<b>Electricity and Magnetism AND</b>	<b>3</b>
<b>PHYL 201</b>	<b>Electricity and Magnetism Laboratory</b>	<b>1</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
Social Science	Gen Ed Requirement	3
Humanities	Gen Ed Requirement	3
CHE 212	Organic Chemistry II	5
CST 161	Computer Programming Fundamentals	4
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* The stated sequence of courses for the Chemistry program assumes that the student is math-ready for calculus.

\*\* BIO 111 & 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 interests.

**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.

### MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

Career and Transfer Information

[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
<b>OR</b>		
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
COM 100	Communications Technologies	4
<b>COM 101</b>	<b>Mass Communications</b>	<b>3</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
Humanities Gen Ed Requirement		3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>COM Elective (100 level)</b>		<b>3</b>
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
English HUM General Education (200 level)		3
PSY 101	General Psychology	3
History Gen Ed Requirement		3
Diversity Gen Ed Requirement		3
<b>COM Elective</b>		<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
COM 201	Issues in Mass Media	3
COM Elective (200 level)		3
Humanities General Education Requirement		3
History Gen Ed Requirement		3
GOV 201	American Government and Politics	3
<b>OR</b>		
GOV 202	American National Government	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
Math Gen Ed Requirement*		4
<b>CST 100</b>	<b>Introduction to Computer Applications</b>	<b>3</b>
ACC 103	Accounting I	3
<b>BUS 105</b>	<b>Organization and Management</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
Math Gen Ed Requirement*		4
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>CST 101</b>	<b>Introduction to Information Systems</b>	<b>3</b>
ADM 216	Access	3
<b>Semester Total:</b>		<b>17</b>

#### SECOND YEAR

<b>FALL SEMESTER</b>		
ENG 122	Introductory Technical and Business Writing*	3
	<b>OR</b>	
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
<b>Humanities Gen Ed Requirement</b>		<b>3</b>
Social Science Gen Ed Requirement		3
BUS 201	Business Law I	3
<b>CST 204</b>	<b>Database Management Systems</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
CST 202	Systems Analysis and Design	3
CST Elective		3
Humanities Gen Ed Requirement		3
Social Science Gen Ed Requirement		3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

\* Transfer students should consult with transfer institution

### MILESTONES

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

# 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 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	Social Science Gen Ed Requirement	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
<b>CST 161</b>	<b>Computer Programming Fundamentals</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
PHY 111	Mechanics	3
	<b>AND</b>	
PHYL 111	Mechanics Laboratory	1
<b>CST 162</b>	<b>Computer Algorithms</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
	Humanities Gen Ed Requirement	3
MAT 267	Discrete Mathematics	3
<b>CST 261</b>	<b>Data Structures</b>	<b>4</b>
CST 226	Introduction to Operating Systems	3
CST Elective**		3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
CST 202	Systems Analysis and Design	3
CST Elective **		3
CST Elective **		3
CST Elective **		3
	Social Science Gen Ed Requirement	3
	<b>OR</b>	
	Humanities Gen Ed Requirement	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* The stated sequence of courses for the Computer Science program assumes that the student is math-ready for calculus.

\*\* Any CST course except CST 100.

The following list is recommended:  
 CST 122 Web Application Development  
 CST 135 Linux Fundamentals  
 CST 175 Networking Fundamentals  
 CST 204 Database Management  
 CST 210 Principles of Cybersecurity  
 CST 212 Programming for Mobile Devices  
 CST 215 Cyber Law and Ethics

# 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
CHE 111	General Chemistry I	4
<b>EGG 101</b>	<b>Introduction to Engineering: Mathematics and Applications</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
<b>PHY 111</b>	<b>Mechanics</b>	<b>3</b>
<b>AND</b>		
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
<b>CST 161</b>	<b>Computer Programming Fundamentals</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ECO 202	Principles of Economics II	3
<b>MAT 271</b>	<b>Unified Calculus III</b>	<b>4</b>
<b>PHY 201</b>	<b>Electricity and Magnetism</b>	<b>3</b>
<b>AND</b>		
<b>PHYL 201</b>	<b>Electricity and Magnetism Laboratory</b>	<b>1</b>
EGG 111	Engineering & Computer Graphics	2
CST 226	Introduction to Operating Systems	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
CST 222	Computer Organization, Architecture, and Assembly Language	4
Humanities	Gen Ed Requirement	3
Humanities or Social Science	Gen Ed Requirement	3
MAT 246	Business Statistical Analysis	4
<b>Semester Total:</b>		<b>14</b>
<b>Total Program Credits:</b>		<b>60</b>

# 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.

### MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
<b>OR</b>		
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
<b>CRJ 101</b>	<b>Introduction to Criminal Justice</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>OR</b>		
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
HIS 201	United States History to 1865	3
<b>Lab Science Gen Ed Requirement*</b>		<b>4</b>
<b>CRJ 102</b>	<b>Police Organization and Administration</b>	<b>3</b>
CRJ	Elective	3
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
Humanities Gen Ed Requirement		3
COM 100	Communications Technologies	4
<b>CRJ 201</b>	<b>Police Management Systems</b>	<b>3</b>
CRJ 203	Criminal Investigation	3
CRJ	Elective	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
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
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>
CRJ Electives (6 credits total):		
CRJ 109 Correctional Administration <b>OR</b>		
CRJ 206 Criminal Law <b>OR</b>		
CRJ 223 Homeland Security		

\*Recommended course: CHE 107

# 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
<b>CRJ 101</b>	<b>Introduction to Criminal Justice</b>	<b>3</b>
CRJ 102	Police Organization and Administration	3
CRJ 203	Criminal Investigation	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
<b>OR</b>		
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
<b>OR</b>		
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>OR</b>		
<b>CST 100</b>	<b>Introduction to Computer Applications</b>	<b>3</b>
CRJ 201	Police Management Systems	3
CRJ 205	Police Role in the Community	3
CRJ 206	Criminal Law	3
<b>OR</b>		
CRJ 208	Community Supervision of the Offender	3
CRJ 223	Homeland Security	3
<b>Semester Total:</b>		<b>15-16</b>
<b>Total Program Credits:</b>		<b>30-31</b>



Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

**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!



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>



# CYBER FORENSICS

## ASSOCIATE IN APPLIED SCIENCE DEGREE



The Cyber Forensics degree program prepares students with competencies in the collection, preservation and analysis of digital evidence for presentation in criminal or civil court. Effective oral, written, and visual communication of scientific, analytical, and technical information are emphasized throughout the digital forensics courses. This career-oriented program provides students with the skills required to uncover relevant information discoverable through scientific and forensics analysis of various types of digital evidence. Students also study national and international laws applicable to cyber investigations, cyber crimes, intellectual property, and digital privacy. Using professional, court-approved investigative software in a dedicated computer classroom, students gain valuable hands-on experience with proper procedures for gathering electronic evidence while maintaining the legal chain of custody. An emphasis is placed upon professional codes of ethical conduct required for careers in cyber forensics.

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

- Conduct digital forensics investigations as members of a collaborative team that conform to accepted professional standards and are based on the investigative process: identification, preservation, examination, analysis and reporting;
- Effectively communicate the results of a cyber forensic analysis verbally, electronically, visually, in writing, and in presentations to both technical and lay audiences;
- Investigate potential security breaches of computer data that suggest violations of legal, ethical, policy or societal standards;
- Critically evaluate relevant technical and legal information and emerging industry trends;
- Examine professional and ethical codes of conduct with respect to cyber forensics.

## AFTER UNION COUNTY COLLEGE

Graduates will be prepared to enter the workforce and apply for middle-skill career positions in the field of cyber forensics.

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
CST 135	Linux Fundamentals	3
<b>CST 170</b>	<b>Digital Forensics Essentials</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	Composition II	3
<b>Lab Science Gen. Ed. Requirement</b>		<b>4</b>
CST 230	Windows Administration and Security	3
<b>CST 176</b>	<b>Advanced Digital Forensics</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
CST 215	Cyber Law and Ethics	3
CST 175	Networking Fundamentals	3
<b>CRJ 101</b>	<b>Introduction to Criminal Justice</b>	<b>3</b>
<b>CST 161</b>	<b>Computer Programming Fundamentals</b>	<b>4</b>
GOV 201	American Government and Politics	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
CST 210	Principles of Cybersecurity	3
CST 240	Network Forensics and Incident Response	4
<b>OR</b>		
CST 245	Cloud and Personal Device Forensics	4
CST 285	Cyber Forensics Capstone	3
SOC 101	Principles of Sociology	3
CST or CRJ Elective *		3
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>

\* Any CST course except CST 100.

# 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
<b>PHY 101</b>	<b>General Physics I**</b>	<b>3</b>
<b>AND</b>		
<b>PHYL 111</b>	<b>Mechanics Laboratory*</b>	<b>1</b>
<b>CST 161</b>	<b>Computer Programming Fundamentals</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
PHY 102	General Physics II**	3
<b>WITH</b>		
PHYL 102	General Physics II Laboratory*	1
<b>CST 162</b>	<b>Computer Algorithms</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

#### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
Humanities Gen Ed Requirement		3
Social Science Gen Ed Requirement		3
MAT 265	Linear Algebra	3
<b>CST 175</b>	<b>Networking Fundamentals</b>	<b>3</b>
<b>CST 210</b>	<b>Principles of Cybersecurity</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
HIS 101	Introduction to Western Civilization I	3
MAT 267	Discrete Mathematics	3
MAT 248	Probability and Statistics	3
CST 215	Cyber Law and Ethics	3
CST	Elective***	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* The stated sequence of courses for the Cybersecurity program assumes that the student is math-ready for calculus.

\*\* Students may substitute PHY 111 and PHY 201 if their transfer institution requires calculus-based physics courses. Please consult with the office of the Dean of STEM.

\*\*\* Any CST course except CST 100.



# DRONE DESIGN AND APPLICATIONS

Option offered through Engineering Technology  
ASSOCIATE IN APPLIED SCIENCE DEGREE



This degree option will provide a solid foundation in applying engineering technology for drones. Students will learn how to design and build a working Drone with fundamentals in artificial intelligence. Students will also be able to expand on their design skills for implementation of Internet of Things ecosystems and cross platform applications.

Upon successful completion, graduates will be able to:

- Demonstrate FAA Part 107 literacy and obtain certification as a Drone Remote Pilot In Command (PIC);
- Develop and execute implementation strategies for solving industry needs using Drones and Applications leveraging Drones;

- Perform laboratory procedures and assess the validity of experimental/diagnostic data;
- 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.

## AFTER UNION COUNTY COLLEGE

Graduates have the option of entering a Bachelor of Science in Technology program or accepting positions such as remote drone pilots, entry-level analysts for drone platforms, quality control technicians for drone manufacturing, or personnel in drone maintenance and repair.

### MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
<b>MET 109</b>	<b>Computer-Aided Drafting</b>	<b>3</b>
<b>UAS 105</b>	<b>Remote Pilot Operations</b>	<b>3</b>
<b>EET 101</b>	<b>Principles of DC Circuits</b>	<b>4</b>
<b>Semester Total:</b>		<b>17</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>Math Gen Ed Requirement**</b>		<b>4</b>
<b>MET 112</b>	<b>Mechanics-Statics</b>	<b>3</b>
<b>EET 111</b>	<b>Digital Computer Fundamentals</b>	<b>4</b>
<b>EET 112</b>	<b>(UAS 112) Sensors for Drones</b>	<b>3</b>
<b>Semester Total:</b>		<b>17</b>

#### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
Humanities	Gen Ed Requirement	3
CST 115	Introduction to Computer Programming	3
<b>PHY 101</b>	<b>General Physics I</b>	<b>3</b>
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
<b>EET 209</b>	<b>(UAS 209) Drone Control Systems</b>	<b>3</b>
<b>Semester Total:</b>		<b>13</b>
<b>SPRING SEMESTER</b>		
EET 285	(UAS 285) Drone Design Capstone	3
EET 212	(UAS 212) IoT Applications for Drones	3
PHY 102	General Physics II	3
PHYL 102	General Physics II Laboratory	1
ECO 201	Principles of Economics I	3
<b>Semester Total:</b>		<b>13</b>
<b>Total Program Credits:</b>		<b>60</b>

\*The stated sequence of courses for the Engineering Technology program assumes that the student is math-ready for calculus.

\*\* Students are strongly encouraged to take MAT 172 as the Math Gen Ed Requirement

# Dream Big. Think Smart.



## Be Part of American Honors.

American Honors is a competitive, highly selective honors program that provides high achieving community college graduates with an affordable pathway to complete their bachelor's degree at some of the top four-year universities in the country.

Union County College's partnership with American Honors provides students of high motivation and ability with a top-tier curriculum at a fraction of the typical cost of an equivalent education. In addition to its financial benefits, the program promotes strong connections between students who challenge and support each other inside and outside of the classroom. Leadership opportunities and community outreach are hallmarks of the program. Students engage in rigorous coursework, based on National Collegiate Honors Council standards, in small learning communities that promote an interactive, dynamic, and engaging experience guided by highly qualified Union County College faculty who are experts in their field.

**U** UNION  
COUNTY  
COLLEGE

**Transforming  
Our Community...  
One Student  
at a Time**

an American Honors college 

This program is for students who plan to transfer after completing their two-year degree at Union County College. Students must apply to both Union County College and the American Honors program. Honors courses are offered in all of the core areas and fulfill general education requirements to ensure transferability. Students who complete their A.A. and A.S. degrees will graduate with the American Honors designation added to their Union County College degree if they fully complete the program requirements. Student will need to take a minimum of 18 credits and maintain a GPA of 3.25 or higher to qualify for this designation. To learn more about the American Honors program at Union, go to <https://www.ucc.edu/academics/american-honors/> or contact [honors@ucc.edu](mailto:honors@ucc.edu)



# 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.**

### MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	Humanities Gen Ed Requirement	3
	HIS Gen Ed Requirement	3
PSY 101	General Psychology	3
	<b>MATH Gen Ed Requirement</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	HIS Gen Ed Requirement	3
	Social Science Gen Ed Requirement	3
	<b>Math, Science &amp; Technology Gen Ed Requirement</b>	<b>4</b>
EDU 205	Educational Psychology	3
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
	OR	
ENG 129	Public Speaking	3
	Humanities Gen Ed Requirement	3
PSY 205	Child Psychology	3
	<b>Lab Science Gen Ed Requirement</b>	<b>4</b>
CST 111	Integrating Technology in the Curriculum	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
EDU 215	Field Work in Education	3
	Humanities Gen Ed Requirement	3
	Diversity Gen Ed Requirement	3
	Liberal Arts 200 Level Elective	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

# 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.

## 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.

### MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>Humanities Gen Ed Requirement</b>		<b>3</b>
HIS	Gen Ed Requirement	3
PSY 101	General Psychology	3
Math Gen Ed Requirement		4
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
HIS	Gen Ed Requirement	3
Social Science Gen Ed Requirement		3
Math, Science & Technology Gen Ed Requirement		4
<b>EDU 205 Educational Psychology</b>		<b>3</b>
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
OR		
ENG 129	Public Speaking	3
Humanities Gen Ed Requirement		3
PSY 206	Adolescent Psychology	3
Lab Science Gen Ed Requirement		4
Liberal Arts 200-Level Elective		3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
EDU 215	Field Work in Education	3
Humanities Gen Ed Requirement		3
GEO 201	World Geography	3
Liberal Arts Elective		3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

### 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.

# 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.

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.
<b>FALL SEMESTER</b>		
EIP 202	Language Development for the Educational Interpreter – Online	3
EIP 204	Ethics and Laws for Educational Interpreters – Online	3
EIP 210	Deaf-Blind Interpreting and Interpreting Strategies	3
<b>Semester Total:</b>		<b>9</b>
<b>SPRING SEMESTER</b>		
EIP 201	Methods of Instruction for Educational Interpreters – Online	3
EIP 203	Child Development for Educational Interpreters – Online	3
EIP 207	Disability Laws for Educational Interpreters – Online	1
<b>Semester Total:</b>		<b>7</b>
<b>Total Program Credits:</b>		<b>16</b>

## 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.



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

# 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/](http://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 prehospital 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.
<b>EMT 106</b>	<b>Emergency Medical Technician</b>	<b>10</b>
ENG 101	English Composition I	3
PSY 101	General Psychology	3
<b>OR</b>		
PED 101	Concepts of Adult Fitness	2
<b>Semester Total:</b>		<b>15-16</b>

#### 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
<b>Semester Total:</b>		<b>16</b>

**Total Program Credits: 31-32**

NOTE: For specific course transferability please contact the Program Director

## AFTER UNION COUNTY COLLEGE

After successful completion of the licensing/certification exams, graduates of the 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 program (i.e.: Health Science, Licensed Practical Nursing, Paramedic Studies, Physical Therapy Assistant), to the Sport Management Program to complete an Associate's Degree or to a four-year institution for continuation of a bachelor's degree.



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>



# 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/](http://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:

- Sit for the National Registry Exam (EMT Basic) as required by the New Jersey State Department of Health and Senior Services - Office of Emergency Medical Services 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

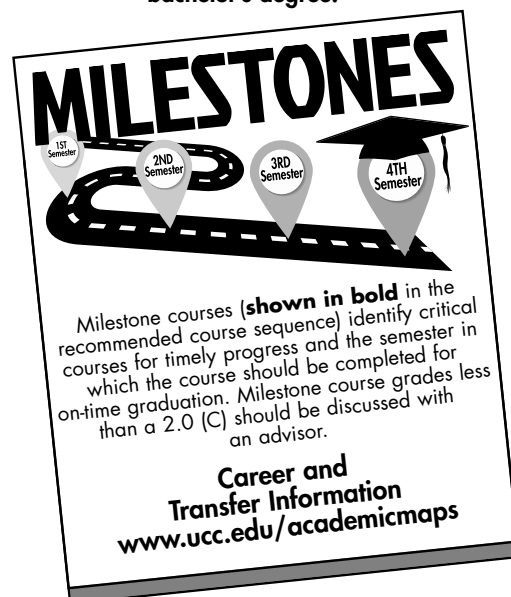
#### FALL SEMESTER

COURSE#	COURSE	Cr.
<b>EMT 106</b>	<b>Emergency Medical Technician</b>	<b>10</b>
ENG 101	English Composition I	3
PSY 101	General Psychology	3
	<b>OR</b>	
CST 100	Introduction to Computer Applications	3
	<b>OR</b>	
PED 101	Concepts of Adult Fitness	2
<b>Total Program Credits:</b>		<b>15 or 16</b>

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, SCIENCE, 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 students may choose their choice (e.g., aerospace, biomedical, chemical, civil, computer, electrical, environmental, industrial, and mechanical).

- 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.

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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;

## ON 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
CHE 111	General Chemistry I	4
<b>EGG 101</b>	<b>Introduction to Engineering: Mathematics and Applications</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
CHE 112	General Chemistry II	4
<b>PHY 111</b>	<b>Mechanics</b>	<b>3</b>
PHYL 111	Mechanics Laboratory	1
<b>Semester Total:</b>		<b>15</b>

### SECOND YEAR

<b>FALL SEMESTER</b>		
Humanities Gen Ed Requirement		3
<b>MAT 271</b>	<b>Unified Calculus III</b>	<b>4</b>
<b>PHY 201</b>	<b>Electricity and Magnetism AND</b>	<b>3</b>
<b>PHYL 201</b>	<b>Electricity and Magnetism Laboratory</b>	<b>1</b>
Tech Elective <sup>1</sup>	(Mechanical & Civil)	3
Tech Elective <sup>1</sup>	(Chemical)	5
Tech Elective <sup>1&amp;2</sup>	(Electrical)	5
<b>Semester Total:</b>		<b>14 or 16</b>
<b>SPRING SEMESTER</b>		
Tech Elective <sup>2</sup> & <sup>3</sup>	(Mechanical & Civil)	6
Tech Elective <sup>2</sup>	(Chemical)	4
Tech Elective	(Electrical)	4
ECO 202	Principles of Economics II	3
MAT 272	Differential Equations	4
<b>Semester Total:</b>		<b>14 or 16</b>
<b>Total Program Credits:</b>		<b>60</b>

\* The stated sequence of courses for the Professor Elmer Wolf Engineering program assumes that the student is math-ready for calculus.

#### Engineering Track Electives

Engineering Track Elective credits require approval of Division Dean's office or designee and are selected dependent on the track from which the student is following. See the tracks below.

#### Mechanical Engineering Track Electives

- EGG 201 - Engineering Mechanics (Statics) 3 credit hours
- EGG 202 - Engineering Mechanics (Dynamics) 3 credit hours
- MET 106 - Engineering Materials and Processes 3 credit hours

#### Civil Engineering Track Electives

- EGG 201 - Engineering Mechanics (Statics) 3 credit hours
- EGG 202 - Engineering Mechanics (Dynamics) 3 credit hours
- Elective 3 credits

#### Electrical Engineering Track Electives

- EGG 111 - Engineering & Computer Graphics 2 credit hours
- EGG 251 - Digital Design 3 credit hours
- EGG 207 - Principles of Electrical Engineering 4 credit hours

#### Chemical Engineering Track Electives

- CHE 211 - Organic Chemistry I 5 credit hours
- Elective 4 credits (CHE 212 - Organic Chemistry II recommended 5 credit hours)



# 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 the program is 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 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 the 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

and industry

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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:

#### Mechanical Engineering Technology Track:

##### First Year, Spring Semester

MET 106<sup>1</sup> 3 credit hours

##### Second Year, Fall Semester

MET 104<sup>2</sup> 3 credit hours

MET 219<sup>3</sup>, 3 credit hours

##### Second Year, Spring Semester

CIT 210<sup>4</sup>, 3 credit hours

CIT 215<sup>5</sup> 3 credit hours

### RECOMMENDED SEQUENCE

## FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
EET 101	Principles of DC Circuits	4
<b>MET 109</b>	<b>Computer-Aided Drafting</b>	<b>3</b>
<b>Semester Total:</b>		<b>18</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>Math Gen Ed Requirement**</b>		<b>4</b>
<b>MET 112</b>	<b>Mechanics-Statics</b>	<b>3</b>
<b>EET 111 - Digital Computer Fundamentals</b>		<b>4</b>
Track Elective (EET/MET) <sup>1</sup>		3
<b>Semester Total:</b>		<b>17</b>

## SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
Humanities Gen Ed Requirement		3
CST 115	Introduction to Computer Programming	3
<b>PHY 101</b>	<b>General Physics I</b>	<b>3</b>
<b>AND</b>		
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
Track Elective (EET) <sup>2</sup>		5
Track Elective (MET) <sup>2,3</sup>		6
<b>Semester Total:</b>		<b>15 or 16</b>
<b>SPRING SEMESTER</b>		
ECO 201	Principles of Economics I	3
PHY 102	General Physics II	3
PHYL 102	General Physics II Laboratory 1 credit hour	1
Track Elective (EET) <sup>3,4</sup>		7
Track Elective (MET) <sup>4,5</sup>		6
<b>Semester Total:</b>		<b>13 or 14</b>

**Total Program Credits: 60**

### Notes:

\* The stated sequence of courses for the Engineering Technology program assumes that the student is math-ready for calculus.

\*\* Students are strongly encouraged to take MAT 172 as the Math Gen Ed Requirement

#### Electronics/Electromechanical Engineering Technology Track:

##### First Year, Spring Semester

EET 102<sup>1</sup> 3 credit hours

##### Second Year, Fall Semester

EET 213<sup>2</sup> 5 credit hours

##### Second Year, Spring Semester

CIT 210<sup>3</sup> 3 credit hours

EET 204<sup>4</sup> 4 credit hours

# ENGLISH

## ASSOCIATE IN ARTS DEGREE



The English degree program is designed for the 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 transfer to a four-year institution to continue their academic advancement on the baccalaureate level.

**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 given course; employ, when practicable, technological tools; and responsibly use and document sources;

- 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.**

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
<b>ENG 101</b>	<b>English Composition I</b>	<b>3</b>
	Modern Language Gen Ed Requirement	3
PSY 101	General Psychology	3
HIS 101	Introduction to Western Civilization I	3
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
<b>ENG 102</b>	<b>English Composition II</b>	<b>3</b>
	Modern Language Gen Ed Requirement	3
	Social Science Gen Ed Requirement	3
HIS 102	Introduction to Western Civilization II	3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
<b>ENG 200-Level</b>		<b>3</b>
ENG 122	Introductory Technical and Business Writing	3
	<b>OR</b>	
COM 102	Reporting and News Writing	3
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
200-Level History General Education Requirement		3
COM 100	Communications Technologies	4
	<b>OR</b>	
Math, Science, Technology Gen Ed Requirement		4
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 200-level		3
ENG 200-level		3
ENG 200-level Diversity Gen Ed requirement		3
ENG 213	Advanced Writing	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

# FIRE SCIENCE TECHNOLOGY

## ASSOCIATE IN APPLIED SCIENCE DEGREE



The Fire Science Technology Program provides the opportunity for in-depth study and critical thinking of fire suppression topics. It prepares the student for excellence in the fire service whether as a volunteer, industrial or career firefighter. Students develop a solid foundation to achieve increased levels of responsibility and leadership in the fire service of tomorrow.

**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.

### MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
CST 100	Introduction to Computer Applications	3
<b>MAT 113</b>	<b>Math Applications or higher</b>	<b>3</b>
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
<b>FST 103</b>	<b>Fire Protection</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 122	Introductory Technical and Business Writing	3
Gen Ed Requirement		3
FST 102	Building Construction	3
<b>FST 105</b>	<b>Fire Prevention</b>	<b>3</b>
FST 106	Fire Fighting Tactics	3
<b>Semester Total:</b>		<b>15</b>

### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
Humanities	Gen Ed Requirement	3
<b>FST 107</b>	<b>Hazardous Materials</b>	<b>3</b>
FST 109	Fire Protection Systems	3
FST 113	Fire Department Organization and Management	3
FST 218	Fireground Strategies and Concepts	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
FST 108	Fire Hydraulics	3
FST 111	Fire Causes and Detection	3
FST 112	Emergency Rescue Operations	3
FST 119	Incident Command	3
GOV 204	Public Administration	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

# GAME DESIGN AND DEVELOPMENT

## ASSOCIATE IN APPLIED SCIENCE DEGREE



Game Design and 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
FIA 108	Appreciation of Art	3
<b>MAT 144</b>	<b>Elementary Mathematical Analysis II*</b>	<b>4</b>
CST 115	Introduction to Computer Programming	3
<b>GDP 101</b>	<b>Fundamentals of Game Design</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
COM 105	Storytelling for Digital Media	3
FIA 104	Introduction to 2D Design	3
CST 161	Computer Programming Fundamentals	4
<b>GDP 112</b>	<b>Introduction to Game Programming</b>	<b>3</b>
<b>GDP 115</b>	<b>The Business of Gaming</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 102	English Composition II	3
<b>PHY 101</b>	<b>General Physics I</b>	<b>3</b>
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
FIA 130	Introduction to Graphic Design	3
<b>GDP 201</b>	<b>Principles of Animation</b>	<b>3</b>
<b>GDP 212</b>	<b>Artificial Intelligence for Games</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
GDP 215	3D Game Programming	3
GDP 280	Game Development Portfolio	3
PSY 101	General Psychology	3
COM 109	Introduction to Film Study	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

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

## MILESTONES

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

Career and  
Transfer Information  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)





# 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 a Bachelor of Fine Arts in Graphic Design. Students will be provided with an historical, theoretical, and comprehensive understanding of the broad application of graphic design. Students will have hands-on experience in creating graphic solutions for commercial use. Utilizing various skills and creative techniques including current computer software, students will be introduced to the various aspects of the graphic design field. Careers and opportunities in the graphic design field will also be addressed.

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

- Demonstrate, visually and in writing, an understanding of the theoretical skills involved in creating graphic visual solutions and the historical aspect of graphic design;
- Create digital visual solutions in print and in multimedia that utilize a creative approach for producing graphic design solutions including images, typography, color, photography, sound, and motion;
- Demonstrate, through oral and written communication, the ability to solve complex design problems utilizing various research methods and observational techniques;

- Demonstrate, through oral and written communication, skills needed to work with clients throughout the process of design problem-solving, from research, design, and production to professionally presenting finished work;
- Create a capstone project that will serve as the focus of a portfolio for print and digital media.

## 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	History Gen Ed Requirement	3
	Modern Language Gen Ed Requirement	3
	<b>Math Gen Ed Requirement</b>	<b>4</b>
<b>FIA 104</b>	<b>Introduction to 2D Design</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	Modern Language Gen Ed Requirement	3
	History Gen Ed Requirement	3
	<b>Lab Science Gen Ed Requirement</b>	<b>4</b>
<b>FIA 109</b>	<b>Introduction to Drawing</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
PSY 101	General Psychology	3
	<b>Math, Science, Technology Gen Ed Requirement</b>	<b>4</b>
FIA 111	Art History Survey I	3
	<b>OR</b>	
FIA 112	Art History Survey II	3
FIA 115	Fundamentals of Figure Drawing	3
<b>FIA 130</b>	<b>Introduction to Graphic Design</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
FIA 230	Advanced Graphic Design	3
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
	Humanities Gen Ed Requirement	3
	Social Science Gen Ed Requirement	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

# 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 orally 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
Humanities	Gen Ed Requirement	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
<b>BIO 105</b>	<b>Anatomy and Physiology I</b>	<b>4</b>
	<b>OR</b>	
<b>BIO 102</b>	<b>Human Biology</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
PSY 204	Lifespan Development	3
	<b>OR</b>	
PSY 205	Child Psychology	3
Mathematics	Gen Ed Requirement	4
<b>BIO 106</b>	<b>Anatomy and Physiology II</b>	<b>4</b>
	<b>OR</b>	
<b>CHE 114</b>	<b>Principles of Organic Chemistry and Biochemistry</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>

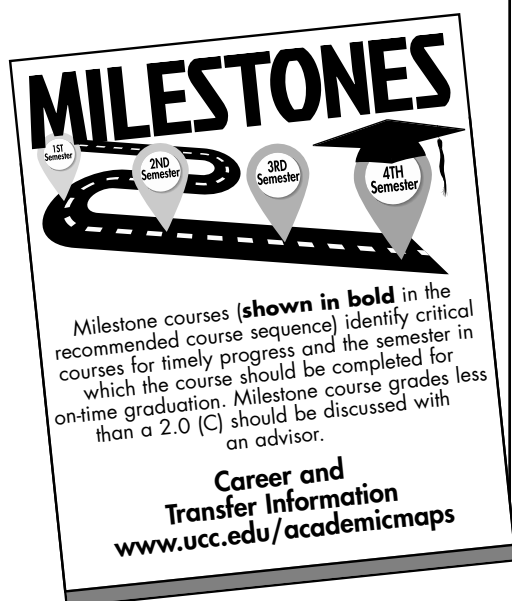
### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
Elective	Gen Ed Requirement	3
Elective		3
ALH 161	Medical Terminology	3
ALH 201	Pathophysiology & Health Care*	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
Elective	Gen Ed Requirement	3
Applied Health Courses**		12
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* 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 12 credits in nursing or allied health:

- BIO 107 Decisions for Wellness
- BIO 108 Microbiology
- 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
ENG 129	Public Speaking	3
<b>HIS 101</b>	<b>Introduction to Western Civilization I</b>	<b>3</b>
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
OR		
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
<b>Semester Total:</b>		<b>13</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>HIS 102</b>	<b>Introduction to Western Civilization II</b>	<b>3</b>
GOV 201	American Government and Politics	3
CST 100	Introduction to Computer Applications	3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>HIS 201</b>	<b>United States History to 1865</b>	<b>3</b>
PHI 212	Logic and Critical Thinking	3
Diversity Gen Ed Requirement		3
History Elective		3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
HIS 202	United States History Since 1865	3
History Elective		3
ECO 201	Principles of Economics I	3
GOV 202	American National Government	3
Humanities Elective		3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

# HOMELAND SECURITY

## CERTIFICATE OF ACHIEVEMENT



### RECOMMENDED SEQUENCE

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
COM 100	Communications Technologies	4
CST 210	Principles of Cybersecurity	3
CRJ 203	Criminal Investigation	3
CRJ 206	Criminal Law	3
CRJ 223	Homeland Security	3
<b>Total Program Credits:</b>		<b>16</b>

The main focus of the Homeland Security Program is to provide students with the skills required for employment and a foundation for further study in this area. The program will also provide skills for people already employed in the Homeland Security field.

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

- Describe principles of information technology;
- Summarize basic forensic procedures;
- Demonstrate knowledge of criminal investigations;
- Explain the history and development of private security and how it fits into the Criminal Justice System.

## AFTER UNION COUNTY COLLEGE

This program is designed for people working in the Criminal Justice/Security Field, as well as for people who are planning to work in the Criminal Justice/Security Field.



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

# MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)



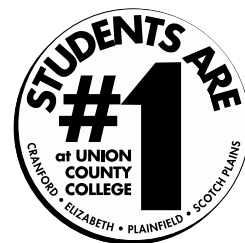
# Interested in earning your degree online?

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.

Online Courses are Ideal for students who need more flexibility than your traditional classes offer. Union County College offers 10 degrees and 2 certificates fully online, allowing the opportunity to earn college degree no matter where you are or what your busy life demands.



*Start today on the distance  
education path towards  
your degree.*



# 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 the dynamic and expanding, hotel, restaurant, and tourism industry.

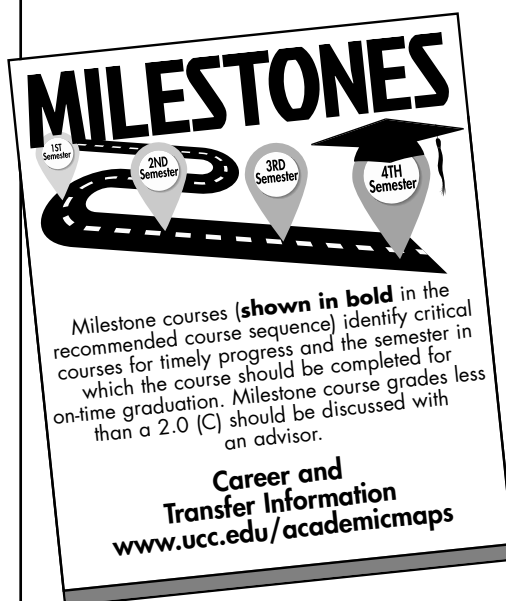
**Upon successful completion of all program requirements, graduates will be able to:**

- Apply critical thinking, decision making skills, strategic planning, and problem solving skills;
- Demonstrate the ability to perform necessary elements of management including following a code of ethics within the hotel, restaurant, and tourism industries;
- Demonstrate leadership skills and abilities to lead, motivate, and manage other, and resolve conflicts;
- Demonstrate an understanding of the fundamental principles of the hospitality and tourism industry in a diverse global environment;
- Communicate effectively in oral, written, and electronic formats;
- Apply knowledge of sales and marketing, hotel front office management, customer service and food and beverage in the hospitality industry;
- Demonstrate 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 113</b>	<b>Math Applications or higher *</b>	<b>3</b>
CST 100	Introduction to Computer Applications	3
<b>HSM 100</b>	<b>Introduction to the Hospitality Industry</b>	<b>3</b>
BUS 105	Organization and Management	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
ENG 122	Introductory Technical and Business Writing	3
BUS 107	Human Resources Management	3
BUS 200	Small Business Management	3
ACC 103	Accounting I	3
<b>HSM 120</b>	<b>Managing Front Office Operations</b>	<b>3</b>
HSM 110	Food and Beverage Management	3
<b>Semester Total:</b>		<b>15</b>

### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 129	Public Speaking	3
Humanities	or Social Science Gen Ed Requirement*	3
<b>HSM 240</b>	<b>Hospitality Sales and Marketing</b>	<b>3</b>
HSM 220	Managing Housekeeping Operations	3
ADM 140	Customer Service	3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
HSM 205	Planning and Control of Food and Beverage Operations	3
HSM 290	Co-op Education Experience in Hospitality Management	3
Humanities	or Social Science Gen Ed Requirement*	3
PSY 101	General Psychology	3
BUS 110	Business and Technology	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* Students planning to transfer to a four year program should take MAT 127 and ECO 201/202.



# 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 the three modes of spoken language interpretation, consecutive, simultaneous, and sight translation;
- Employ reference and research tools that enhance interpreting skills;
- Analyze 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.



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

### RECOMMENDED SEQUENCE

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
<b>INT 101</b>	<b>Interpreting I</b>	<b>3</b>
TRN 101	Introduction to Written Translation	3
ENG 101	English Composition I	3
ENG 129	Public Speaking	3
<b>Math, Science, Technology Gen Ed Requirement</b>		<b>3-4</b>
<b>Semester Total:</b>		<b>15-16</b>
<b>SPRING SEMESTER</b>		
<b>INT 102</b>	<b>Interpreting II</b>	<b>3</b>
INT 105	The Role of the Interpreter	3
ENG 128	The Dynamics of Communication	3
Humanities Gen Ed requirement		3
Social Science Gen Ed requirement		3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>30-31</b>

# 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, and 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, 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
	<b>OR</b>	
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
COM 100	Communications Technologies	4
<b>COM 101</b>	<b>Mass Communications</b>	<b>3</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
Humanities Gen Ed Requirement		3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>COM 102</b>	<b>Reporting and News Writing</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

<b>FALL SEMESTER</b>		
Humanities Gen Ed Requirement		3
PSY 101	General Psychology	3
History Gen Ed Requirement		3
COM 107	Publication Editing and Design	3
<b>COM 108</b>	<b>Principles and Practices of Public Relations</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
COM 207	Advanced Publication Editing and Design	3
Diversity Gen Ed Requirement		3
200 Level Humanities Gen Ed Requirement		3
Social Science Gen Ed Requirement		3
History Gen Ed Requirement		3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

# LIBERAL ARTS

## ASSOCIATE IN ARTS DEGREE



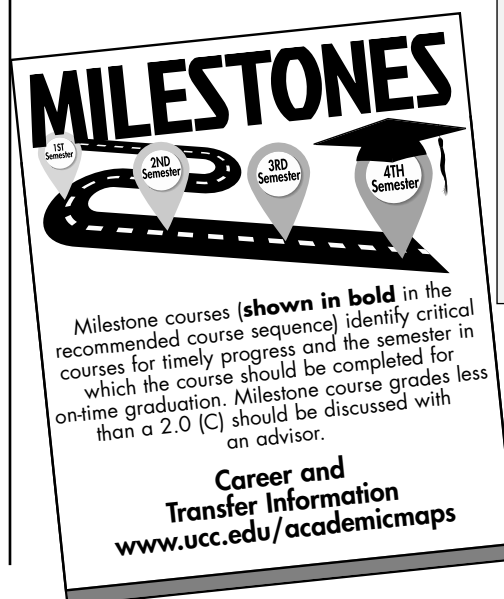
The Liberal Arts program is a flexible, transfer-oriented curriculum for students who want to complete a broad-based liberal arts foundation before majoring in a particular discipline. Traditionally, the Liberal Arts include language, philosophy, literature, history, and the physical sciences. The Liberal Arts program is designed to meet the core requirements of most four-year liberal arts colleges, offering a wide range of program options that allow for specialization during the first two years of college. Besides being a basis for many other programs, it is the center of several programs which serve as Liberal Arts options: American Studies, Early Childhood Elementary Education, Education, Graphic Design, Theater Arts, Psychology, Sociology, and Visual Arts. 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;
- Employ the creative process to find meaning in global, local, and personal challenges and concepts;
- Use critical thinking to apply historical and literary concepts to contemporary social and cultural issues;
- Apply approaches from the liberal arts to expose the meaning of the human experience;
- Explain ethical implications of everyday issues;
- Utilize the skills of reasoning and analysis 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.
<b>FALL SEMESTER</b>		
<b>ENG 101</b>	<b>English Composition I</b>	<b>3</b>
	Modern Language Gen Ed Requirement	3
PSY 101	General Psychology	3
	History Gen Ed Requirement	3
	<b>Lab Science Gen Ed Requirement</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
<b>ENG 102</b>	<b>English Composition II</b>	<b>3</b>
	Modern Language Gen Ed Requirement	3
	History Gen Ed Requirement	3
	Social Science Gen Ed Requirement	3
	<b>Math Gen Ed Requirement</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
	Humanities Gen Ed Requirement	3
	<b>Math, Science &amp; Technology Gen Ed Requirement</b>	<b>4</b>
	Liberal Arts Elective	3
	Liberal Arts 200-level elective	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
	Liberal Arts Elective	3
	Liberal Arts 200-level elective	3
	Liberal Arts 200-level elective	3
	Diversity Gen Ed Requirement	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

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 a flexible and broad-based general education curriculum providing students the opportunity to explore academic areas such as the social sciences, history, business, science, or the applied sciences. This Associate in Science degree will help enhance critical thinking, problem solving, and written communication skills, resulting in a well-rounded individual prepared either to enter the workforce or transfer to a baccalaureate degree granting institution. Students should select courses that are congruent with interests, transfer requirements, and career goals.

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

- Communicate clearly orally and in writing;
- Apply technological skills for the purpose of learning and research;
- Use critical thinking to apply historical knowledge to contemporary social issues;
- Use approaches from the social sciences to analyze the impact of human and social behaviors;
- Explain ethical implications of everyday issues;
- Utilize quantitative reasoning 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.
<b>FALL SEMESTER</b>		
<b>ENG 101</b>	<b>English Composition I</b>	<b>3</b>
	History Gen Ed Requirement	3
PSY 101	General Psychology	3
<b>Math Gen Ed Requirement</b>		<b>4</b>
	Elective	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
<b>ENG 102</b>	<b>English Composition II</b>	<b>3</b>
	Social Science Gen Ed Requirement	3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
	Electives	6
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
<b>Math, Science &amp; Technology Gen Ed Requirement</b>		<b>4</b>
	Elective Gen Ed Requirement	3
	Electives	9
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
	Elective Gen Ed Requirement	3
	Electives	9
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

# 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 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.

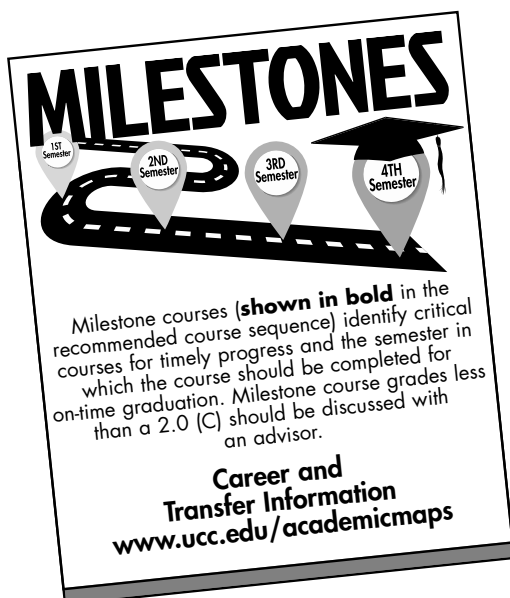
## AFTER UNION COUNTY COLLEGE

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.
<b>FALL SEMESTER</b>		
<b>ENG 101</b>	<b>English Composition I</b>	<b>3</b>
	Social Science Gen Ed Requirement	3
	Humanities Gen Ed Requirement	3
	Electives	6
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
<b>ENG 102</b>	<b>English Composition II</b>	<b>3</b>
	Social Science	3
	<b>OR</b>	
	Humanities Gen Ed Requirement	3
	<b>Math, Science, Technology Gen Ed Requirement</b>	<b>3-4</b>
	Electives	6
<b>Semester Total:</b>		<b>15 or 16</b>
<b>Total Credits: 30-31</b>		



# 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 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.

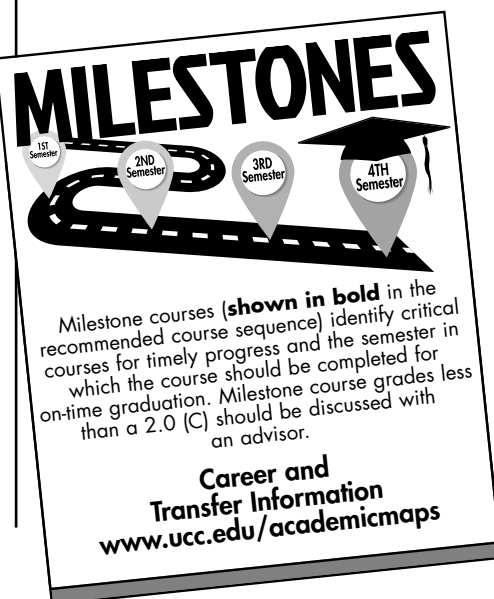
**Upon successful completion of all program requirements, graduates will be able to:**

- 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
<b>PHY 101</b>	<b>General Physics I**</b>	<b>3</b>
	AND	
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
<b>CST 161</b>	<b>Computer Programming Fundamentals</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
<b>PHY 102</b>	<b>General Physics II**</b>	<b>3</b>
	AND	
<b>PHYL 102</b>	<b>General Physics II Laboratory</b>	<b>1</b>
<b>CST 162</b>	<b>Computer Algorithms</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 200	Level Literature Course	3
<b>MAT 271</b>	<b>Unified Calculus III</b>	<b>4</b>
	Humanities Gen Ed Requirement	3
<b>MAT 265</b>	<b>Linear Algebra</b>	<b>3</b>
CST 261	Data Structures	4
<b>Semester Total:</b>		<b>17</b>
<b>SPRING SEMESTER</b>		
MAT 272	Differential Equations	4
MAT 267	Discrete Mathematics	3
MAT 248	Probability and Statistics	3
	Social Science Gen Ed Requirement	3
<b>Semester Total:</b>		<b>13</b>
<b>Total Program Credits:</b>		<b>60</b>

- \* The stated sequence of courses for the Mathematics program assumes that the student is math-ready for calculus.
- \*\* Students may substitute PHY 111 and PHY 201 if their transfer institution requires calculus-based physics courses. Please consult with the office of the Dean of STEM.

# 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
<b>PHY 101</b>	<b>General Physics I AND</b>	<b>3</b>
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
<b>CST 161</b>	<b>Computer Programming Fundamentals</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
<b>PHY 102</b>	<b>General Physics II AND</b>	<b>3</b>
<b>PHYL 102</b>	<b>General Physics II Laboratory</b>	<b>1</b>
<b>CST 162</b>	<b>Computer Algorithms</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
HIS 101	Introduction to Western Civilization I	3
PSY 101	General Psychology	3
<b>MAT 271</b>	<b>Unified Calculus III</b>	<b>4</b>
CST 261	Data Structures	4
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
HIS 102	Introduction to Western Civilization II	3
PSY 206	Adolescent Psychology	3
MAT 272	Differential Equations	4
MAT 267	Discrete Mathematics	3
MAT 265	Linear Algebra	3
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>

\* The stated sequence of courses for the Mathematics Major - Education Option program assumes that the student is math-ready for calculus.

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



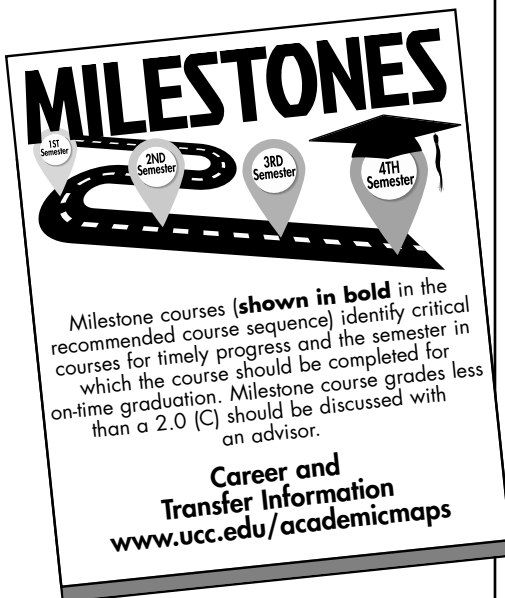
Communications Option in Media includes three possible areas of focus: Audio, Film and Television, and Multimedia. This option is ideal for students who want to immerse themselves in the study of traditional and emerging media and gain skills necessary to pursue further study in the area of television, film, and audio production.

### 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 Media or various degree programs and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the to four-year colleges and universities in the country. See a transfer advisor for details.



## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
MAT 125	Survey of Special Topics in Mathematics	4
COM 100	Communications Technologies	4
<b>COM 101</b>	<b>Mass Communications</b>	<b>3</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
Lab Science	Gen Ed Requirement	4
<b>COM 109</b>	<b>Introduction to Film Study</b>	<b>3</b>
COM elective*		3
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
200 level Humanities	Gen Ed Requirement	3
History	Gen Ed Requirement	3
PSY 101	General Psychology	3
<b>COM 209</b>	<b>The Evolution of Film</b>	<b>3</b>
COM elective*		3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
<b>COM 216</b>	<b>Digital Video Editing and Multimedia Imaging</b>	<b>3</b>
COM 200	Level elective*	3
FIA 105	Music Appreciation	3
Social Science	Gen Ed Requirement	3
History	Gen Ed Requirement	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* Students are encouraged to choose electives from one of the following concentrations:

#### AUDIO PRODUCTION

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

#### FILM AND TELEVISION

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

#### MULTI-MEDIA

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



# MEDICINAL PLANT CHEMISTRY

Option offered through Biology  
ASSOCIATE IN SCIENCE DEGREE



The Biology degree program combines biology courses with coursework in Chemistry, Mathematics, and the Liberal Arts. The Medicinal Plant Chemistry option incorporates the biology curriculum with a generalist level knowledge of medicinal plant research, foundational knowledge of FDA, legal and policy issues, and an overview of the medicinal plant industry from the biological standpoint. This alternative provides exposure to the medicinal plant field and prepares students for transfer to baccalaureate degrees.

**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 humankind 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;
- Examine potential medical uses and pitfalls of medicinal plants.

## 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	Social Science Gen Ed Requirement	3
<b>BIO 111</b>	<b>General Biology I</b>	<b>4</b>
<b>CHE 111</b>	<b>General Chemistry I</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	Social Science Gen Ed Requirement	3
<b>OR</b>		
	Humanities Gen Ed Requirement	3
<b>BIO 112</b>	<b>General Biology II</b>	<b>4</b>
<b>CHE 112</b>	<b>General Chemistry II</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
	Humanities Gen Ed Requirement	3
<b>MAT 143</b>	<b>Elementary Mathematical Analysis I</b>	<b>4</b>
<b>OR</b>		
<b>MAT 171</b>	<b>Unified Calculus I</b>	<b>4</b>
<b>CHE 211</b>	<b>Organic Chemistry I</b>	<b>5</b>
BIO 113	Plants, People, and Society	4
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
MAT 144	Elementary Mathematical Analysis II	4
<b>OR</b>		
MAT 172	Unified Calculus II	4
CHE 212	Organic Chemistry II	5
BIO 210	Hydroponics	4
BIO 211	Medicinal Plants	3
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>

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



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>





# Healthcare PROGRAMS OF STUDY

- Emergency Medical Studies
- Nursing, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools
- Nursing, Trinitas School of Nursing
- Psychosocial Rehabilitation and Treatment
- Radiography, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools
- Paramedic Emergency Health Science
- Physical Therapist Assistant
- Practical Nursing
- Sonography, Nursing, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools

Employment of healthcare occupations is projected to grow 18 percent from 2016 to 2026, much faster than the average for all occupations, adding about 2.4 million new jobs. Healthcare occupations are projected to add more jobs than any of the other occupational groups. This projected growth is mainly due to an aging population, leading to greater demand for healthcare services.

The median annual wage for healthcare practitioners and technical occupations (such as registered nurses, physicians and surgeons, and dental hygienists) was \$63,420 in May 2016, which was higher than the median annual wage for all occupations in the economy of \$37,040.



**Transforming  
Our Community...  
One Student  
at a Time**



# 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 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.

### MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

- **The Trinitas School of Nursing and JFK Muhlenberg Harold B. & 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 Trinita School of Nursing.
- **JFK Muhlenberg Harold B. & Dorothy A. Snyder Schools Program Description**  
 JFK Muhlenberg Harold B. & Dorothy A. Snyder Schools offers a day or evening Generic track in the nursing courses. The JFK 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 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 Muhlenberg Harold B. and Dorothy A. Snyder Schools also offers a Pathways to BSN Track in cooperation with Kean University.

[www.jfkmuhlenbergschools.org](http://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, Grand Canyon University, Chamberlain University, Walden University, Wilkes University, Monmouth University, Montclair State University, 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.).

# NURSING

## JFK 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 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](http://www.jfkmuhlenbergschools.org)

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

- Demonstrate accountability, responsibility, and integrity for the delivery of safe nursing care within legal, ethical, and regulatory framework in nursing practice;
- Provide safe nursing care utilizing evidence-based practice and the nursing process to minimize risk or harm to a diverse population across the lifespan;
- Provide education to individuals and families related to promotion, maintenance, restoration of health, and caring throughout the lifespan;
- Collaborate with interdisciplinary healthcare team members to facilitate optimal patient outcomes by incorporating quality initiatives in all settings;
- Demonstrate effective communication with patients, families, peers, and members of the interdisciplinary healthcare team to promote optimal patient outcomes in a variety of healthcare settings;
- Demonstrate sound clinical judgment and reasoning in the delivery of patient centered care for a diverse patient population;
- Utilize information technology to communicate, incorporate evidence-based practice, minimize errors, gather data, and support decisions for safe patient care.

## 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.
<b>FALL SEMESTER</b>		
<b>BIO 105</b>	<b>Anatomy and Physiology I*</b>	<b>4</b>
CHE 114	Principles of Organic Chemistry and Biochemistry**	4
ENG 101	English Composition I	3
NURM 100	Mathematics for Pharmacology	1
<b>NURM119</b>	<b>Introduction to Nursing</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
<b>BIO 106</b>	<b>Anatomy and Physiology II*</b>	<b>4</b>
PSY 101	General Psychology	3
<b>NURM 121</b>	<b>Nursing I</b>	<b>8</b>
<b>Semester Total:</b>		<b>15</b>
<b>FALL SEMESTER</b>		
<b>BIO 108</b>	<b>Microbiology*</b>	<b>4</b>
PSY 204	Lifespan Development	3
<b>NURM 122</b>	<b>Nursing II</b>	<b>8</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
SOC 101	Principles of Sociology	3
ENG 102	English Composition II	3
NURM 221	Nursing III	9
<b>Semester Total:</b>		<b>15</b>
<b>FALL SEMESTER</b>		
NURM 222	Nursing IV	9
Humanities Gen Ed Requirement (2)		6
<b>Semester Total:</b>		<b>15</b>
<b>Nursing Credits:</b>		<b>38</b>
<b>General Education Credits:</b>		<b>37</b>
<b>Total Program Credits:</b>		<b>75</b>

#### ACCELERATED TRACK

##### COURSES AT UNION COUNTY COLLEGE (IF NECESSARY)

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
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
<b>Semester Total:</b>		<b>38</b>
<b>SPRING SEMESTER</b>		
NURM 141	Accelerated Nursing – Spring	13
<b>Semester Total:</b>		<b>13</b>
<b>SUMMER SEMESTER</b>		
NURM 241	Accelerated Nursing – Summer +	11
<b>Semester Total:</b>		<b>11</b>
<b>FALL SEMESTER</b>		
NURM 242	Accelerated Nursing – Fall	13
<b>Semester Total:</b>		<b>13</b>
<b>Nursing Credits:</b>		<b>38</b>
<b>General Education Credits:</b>		<b>37</b>
<b>Total Program Credits:</b>		<b>75</b>

\* These sciences must have been taken within the last five years to be transferable.

\*\* The CHE 113/CHE 114 sequence is recommended for students considering BSN/MSN study.

+ Taught in a 12-week summer semester.

# NURSING

## JFK 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.
<b>PREREQUISITES</b>		
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
<b>Total Credits:</b>		<b>31</b>
<b>SUMMER SEMESTER</b>		
NURM 120	LPN Transition Course**	4
<b>Semester Total:</b>		<b>4</b>
<b>FALL SEMESTER</b>		
NURM 221	Nursing III	9
Humanities Gen Ed Requirement		3
<b>Semester Total:</b>		<b>12</b>
<b>SPRING SEMESTER</b>		
NURM 222	Nursing IV	9
Humanities Gen Ed Requirement		3
<b>Semester Total:</b>		<b>12</b>
<b>Nursing Credits:</b>		<b>38</b>
<b>General Education Credits:</b>		<b>37</b>
<b>Total Program Credits:</b>		<b>75</b>

\* Transfer limits: BIO sciences must have been taken within the last five years

CHE sciences must have been taken within the last ten years

\*\* Upon passing NURM 120, 16 transfer credits will be awarded to satisfy the following courses::

NURM 100 1 credit  
NURM 119 3 credits  
NURM 121 8 credits  
NURM 122 8 credits

## MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

# NURSING, TRINITAS SCHOOL OF NURSING

## ASSOCIATE IN SCIENCE DEGREE

Students interested in receiving additional information about the Trinitas School of Nursing or receiving an application should contact Union County College. The Cranford campus number is 908-709-7500; the Elizabeth campus number is 908-965-6050 or email [nursing@ucc.edu](mailto:nursing@ucc.edu). Additional information is also available at [www.trinitasschoolofnursing.org](http://www.trinitasschoolofnursing.org).

### Trinitas School of Nursing End of Program Student Learning Outcomes

The Graduate will:

- Provide compassionate and coordinated patient centered care recognizing the patient as the source of control and as a full care partner with respect to their individual preferences, values and needs.
- Function effectively within nursing and inter-professional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care.
- Integrate best current evidence with clinical expertise and patient/family preferences and values when making clinical decisions in the delivery of optimal health care.
- Use data to monitor the outcomes of care processes and use improvement methods to design and test changes to continuously improve the quality and safety of health care systems. Minimize risk of harm to patients and providers through both system effectiveness and individual performance.
- Use information and technology to communicate, manage knowledge, mitigate error, and support decision making.

### GENERAL INFORMATION

#### CURRICULUM:

Fully accredited by the Accreditation Commission for Education in Nursing (ACEN) and the New Jersey State Board of Nursing, the program offers a basic course of study in nursing. The curriculum 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 patient care. Utilization of a variety of health care agencies facilitates the application of all aspects of the students' learning. The curriculum has two program tracks (Generic RN or LPN to RN) for prospective students to consider.

#### MATRICULATION:

Students may matriculate as full-time or part-time students in the Generic RN or LPN to RN tracks. 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 RN PROGRAM:

The Generic RN track of the School of Nursing is offered with day, evening, and select weekend classes. The admission process for this track is done twice a year for the Fall and Spring semesters.

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. Transfer credits are also accepted. Students are expected to complete the Generic RN track within federal time guidelines.

#### LPN TO RN TRACK FOR LICENSED PRACTICAL NURSES

The LPN to RN track is offered with evening and select weekend classes. Admission to this track is done on an annual basis for each Fall semester.

The LPN to RN 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. Students are expected to complete the LPN-RN track within federal time guidelines.

#### Education Progression: RN-BSN/MSN

Seamless academic progression to the BSN and MSN degree is available to Trinitas graduates. The College of St. Elizabeth offers

both a Bachelor of Science in Nursing and a Master of Science in Nursing program onsite at Trinitas. The School also has articulation agreements with Kean University, Drexel University, and Thomas Edison State University for obtaining the RN-BSN degree.

#### GRADUATES OF THE PROGRAM

Graduates of the program are eligible to take the National Council of State Boards of Nursing Licensing Examination (NCLEX-RN) to obtain licensure as a Registered Nurse. Upon licensure, graduates may seek employment in the nursing/ health care field or continue their educational pursuits.

#### ADMISSION TO THE SCHOOL OF NURSING

Upon enrollment at Union County College, students wishing to enter the Trinitas School of Nursing Cooperative Program will be considered as a Health Science major until formal acceptance into one of the School of Nursing's program tracks.

NOTE: Prospective applicants with two or more nursing course failures at another college or nursing school will not be considered for admission to the Trinitas School of Nursing.

#### Admission to NURE 130 (Generic RN Track)

Application for admission consideration for NURE 130 requires the following:

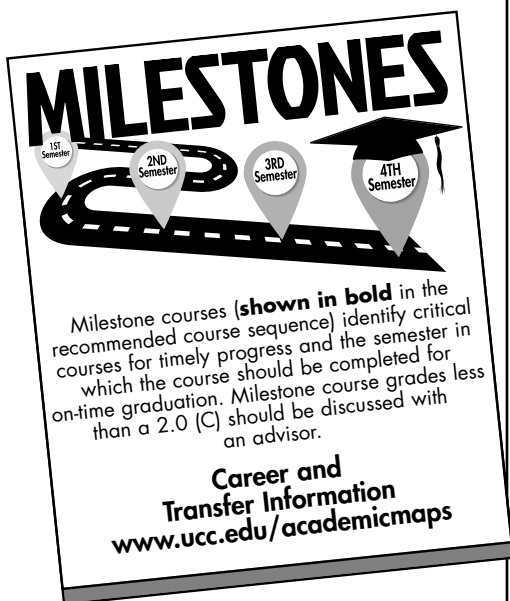
- Attendance at a Trinitas Nursing Information Session.
- A minimum cumulative score of 50 on the TEAS nursing admission examination.
- Successful completion of MAT 017 and ENG 097 or placement into College level courses.
- Cumulative GPA of 2.5 or higher (High school GPA within one year of graduation or Union County College GPA).
- Successful completion or current registration in the NURE 130 co-requisite courses (Note: all science courses require a minimum grade of C).

#### Admission to NURE 211/212 (LPN to RN Track)

Application for admission consideration for the LPN to RN track requires the following:

- Current LPN license from any state or territory of the United States.
- Successful completion of MAT 017 and ENG 097 or placement into College level courses. Union County College GPA of 2.5 or higher.
- Successful completion of all LPN to RN track pre-requisite courses (all science courses require a minimum grade of C).
- A clear or negative criminal background check and negative urine drug screen.
- Attendance at a Trinitas School of Nursing Information.

Note: The TEAS admission exam is not a requirement for admission to the LPN to RN program track



# NURSING, TRINITAS SCHOOL OF NURSING

## ASSOCIATE IN SCIENCE DEGREE, cont'd

### Additional Nursing Program Requirements

All nursing students are required to meet additional mandatory requirements prior to enrollment in clinical nursing courses (Generic Track - NURE 131 ; LPN-RN Track - NURE 212 ).

All students are required to maintain a minimum GPA of 2.5 while enrolled in nursing courses.

For additional information on the Trinitas School of Nursing, please visit the website at [www.trinitasschoolofnursing.org](http://www.trinitasschoolofnursing.org) or email [trinitas@ucc.edu](mailto:trinitas@ucc.edu).

\*Due to the rigorous nature of nursing curriculum courses, it is recommended that if the full-time sequence of courses is chosen, students limit outside work obligations to support student success in the program.

### RECOMMENDED SEQUENCE FOR FULL-TIME STUDENT ENROLLMENT\*

#### GENERIC CURRICULUM

##### DAY AND EVENING DIVISIONS

NURE 130, NURE 131, NURE 132, NURE 231, and NURE 232 are offered during the Fall and Spring semesters.

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>BIO 105</b>	<b>Anatomy and Physiology I</b>	<b>4</b>
CHE 114	Principles of Organic Chemistry and Biochemistry	4
<b>NURE 130</b>	<b>Nursing Trends and Concepts</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
PSY 101	General Psychology	3
<b>BIO 106</b>	<b>Anatomy and Physiology II</b>	<b>4</b>
<b>NURE 131</b>	<b>Nursing I</b>	<b>8</b>
<b>Semester Total:</b>		<b>15</b>
<b>FALL SEMESTER</b>		
PSY 204	Lifespan Development	3
<b>BIO 108</b>	<b>Microbiology</b>	<b>4</b>
<b>NURE 132</b>	<b>Nursing II</b>	
<b>Semester Total:</b>		
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
SOC 101	Principles of Sociology	3
NURE 231	Nursing III	8
<b>Semester Total:</b>		<b>14</b>
<b>FALL SEMESTER</b>		
NURE 232	Nursing IV	10
Humanities Gen Ed Requirement		3
Humanities Gen Ed Requirement		3
<b>Semester Total:</b>		<b>16</b>
<b>Credit Allocation:</b>		
Nursing Credits:		<b>38</b>
General Education Credits:		<b>37</b>
Total Program Credits:		<b>75</b>

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 65-75 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.
<b>PREREQUISITES</b>		
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
BIO 105	Anatomy and Physiology I	4
BIO 106	Anatomy and Physiology II	4
CHE 114	Principles of Organic Chemistry and Biochemistry	4
BIO 108	Microbiology	4
Humanities Gen Ed Requirement		3
Humanities Gen Ed Requirement		3
Licensed Practical Nurse Curriculum		12
<b>FALL SEMESTER</b>		
NURE 211	Bridge-to-Professional Nursing Core Concepts	3
NURE 212	Health and Physical Assessment	4
<b>SPRING SEMESTER</b>		
NURE 250	Nursing Care of the Client with a Medical Surgical Health Deviation	6
<b>SUMMER SESSION</b>		
	Nursing Care of Children and their Families	3
	Nursing Care of Women and the Childbearing	3
<b>FALL SEMESTER</b>		
NURE 280	Nursing Care of the Client with Mental Illness	3
NURE 290	Nursing Care of the Client With Complex Multi-System Medical/Surgical Health Deviation	3
NURE 291	Leadership and Management Seminar	1
<b>Credit Allocation:</b>		
Nursing Credits:		<b>38</b>
General Education Credits:		<b>37</b>
Total Program Credits:		<b>75</b>

This page has been revised.  
Click here for the UPDATED page.

## AFTER UNION COUNTY COLLEGE

Graduates of these programs can either work in the Nursing/Health professions or continue their educational pursuits.

# 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.
<b>ADM 213 Word I</b>		<b>3</b>
<b>ADM 215 Excel I</b>		<b>3</b>
ADM 217	PowerPoint	3
CST 120	The Internet	3
Elective Technical**		3
<b>Total Program Credits:</b>		<b>15</b>

\*\*Choose from the following technical electives:

ADM 216	Access	3
CST 130	Visual Basic Programming	4
ADM 135	Proofreading and Editing Skills	3
ADM 214	Word II	3

### PROGRAM PREREQUISITES:

ENG 101	English Composition I	3
ADM 101	Keyboarding for the Computer I	2

## MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

# 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.

**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.

## 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.**

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
<b>LGL 101</b>	<b>Introduction to Paralegal Studies</b>	<b>3</b>
LGL 110	Legal Research	3
LGL 111	Legal Writing	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
CST 100	Introduction to Computer Applications	3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>LGL 120</b>	<b>Contract Law</b>	<b>3</b>
<b>Semester Total:</b>		<b>13</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication <b>OR</b>	3
ENG 129	Public Speaking	3
GOV 201	American Government and Politics <b>OR</b>	3
GOV 202	American National Government	3
Social Science Gen Ed Requirement		3
<b>LGL 220</b>	<b>Litigation I</b>	<b>3</b>
LGL Elective**		3
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
LGL 140	Property Law	4
LGL 215	Law Office Technology	3
LGL 221	Litigation II	3
Humanities Gen Ed Requirement		3
ECO 201	Principles of Economics I <b>OR</b>	3
ECO 202	Principles of Economics II	3
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>

\*\*Legal Electives:

- LGL 210 - Tort Law
- LGL 230 - Family Law
- LGL 231 - Criminal Law
- LGL 235 - Wills, Estates & Trusts
- 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.

**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.

## 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.

### 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.

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
<b>LGL 101</b>	<b>Introduction to Paralegal Studies</b>	<b>3</b>
LGL 110	Legal Research	3
LGL 111	Legal Writing	3
LGL 220	Litigation I	3
<b>Semester Total:</b>		<b>12</b>
<b>SPRING SEMESTER</b>		
LGL 120	Contract Law	3
LGL 140	Property Law	4
<b>LGL 221</b>	<b>Litigation II</b>	<b>3</b>
LGL 215	Law Office Technology	3
LGL	Legal Elective	3
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>28</b>
Legal Electives:		
LGL 210	Tort Law	
LGL 230	Family Law	
LGL 231	Criminal Law	
LGL 235	Wills, Estates & Trusts	
LGL 240	Business Organizations	
LGL 250	Bankruptcy Law	
LGL 260	Employment Law	
LGL 270	Immigration Law	
LGL 290	Paralegal Internship	



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

# 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 nonstructured, 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/](http://www.state.nj.us/health/ems/).

The Union County College Paramedic Emergency Health Science Program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of  
Allied Health Education Programs  
1361 Park Street  
Clearwater, FL 33756  
727-210-2350  
[www.caahep.org](http://www.caahep.org)

To contact CoAEMSP:  
8301 Lakeview Parkway  
Suite 111-312  
Rowlett, TX 75088  
214-703-8445  
Fax: 214-703-8992  
[www.coaemsp.org](http://www.coaemsp.org)

Dane Fishburn  
Paramedic Program Director  
Plainfield Campus  
Email: [dane.fishburn@ucc.edu](mailto:dane.fishburn@ucc.edu)  
Office: 908-412-3551

### 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.
- Obtain the age of 18 by the first day of Paramedic I.

### 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 Student Handbook which has policies and procedures that are specific to the program because of State and/or National mandates.

# MILESTONES

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

# 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, and received sponsorship from a clinical hospital site.

Students are encouraged to complete the general education requirements prior to enrollment, as the Paramedic Program is a rigorous and time-intensive curriculum. Anatomy and Physiology I is a mandatory prerequisite of Paramedic I. Anatomy and Physiology II is a mandatory co-requisite of Paramedic I.

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
<b>MAT 113</b>	<b>Math Applications</b>	<b>3</b>
<b>BIO 105</b>	<b>Anatomy and Physiology I</b>	<b>4</b>
<b>Semester Total:</b>		<b>13</b>
<b>SPRING SEMESTER</b>		
<b>BIO 106</b>	<b>Anatomy and Physiology II</b>	<b>4</b>
<b>PMD 110</b>	<b>Paramedic I</b>	<b>11</b>
<b>Semester Total:</b>		<b>15</b>
<b>SUMMER I SEMESTER</b>		
ENG 102	English Composition II	3
PMD 113	Paramedic Clinical I	2
<b>Semester Total:</b>		<b>5</b>
<b>SUMMER II SEMESTER</b>		
<b>PMD 114</b>	<b>Paramedic Clinical II</b>	<b>3</b>
<b>Semester Total:</b>		<b>3</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
PMD 213	Paramedic II	11
PMD 214	Paramedic Clinical III	5
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
PMD 215	Paramedic Field Internship	11
<b>Semester Total:</b>		<b>11</b>
<b>Total Program Credits:</b>		<b>63</b>



#### Advanced Placement in Paramedic:

There is a process in place for advanced placement for currently certified New Jersey Paramedics in good standing to obtain their Associate Degree in Applied Sciences. Applicants for Advanced Placement may contact the program director for more information. Prospective students must provide copies of college transcripts indicating paramedic coursework, current NJ paramedic certification, current CPR, ACLS, PALS, and PHTLS certifications. Up to 38 credits may be awarded for prior PMD coursework with these current certifications. Required courses include PMD 214 - Paramedic Clinical III, offered during the Fall semester, worth 5 credits, and all general education coursework required in the program.

#### Transfer of Credits

Transfer credits will be considered for general education courses based upon the New Jersey transfer guidelines. Program specific courses will not be accepted for transfer credit.

#### Credits for Experiential Learning

Applicants requesting credits for experiential learning for general education courses will be considered on a case-by-case basis.

The program has the following goal(s) defining minimum expectations for graduates:

- To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency First Responder levels.

## AFTER UNION COUNTY COLLEGE

Graduates 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.

# 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 Installer<sup>1</sup>, 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.

<sup>1</sup> <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.

## 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.**

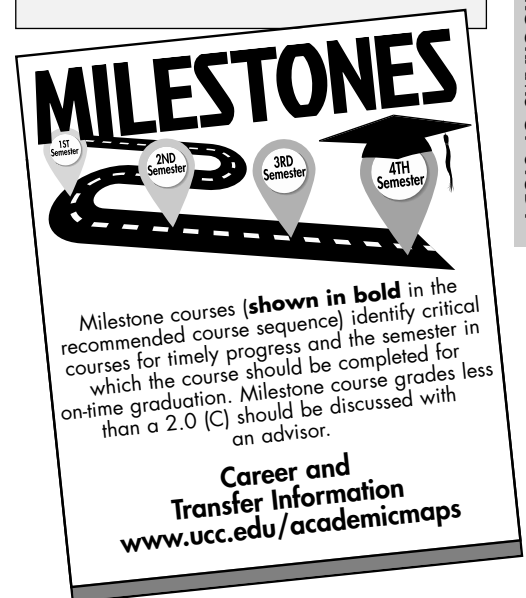
## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
CST 115	Introduction to Computer Programming	3
MET 109	Computer-Aided Drafting	3
<b>EET 101</b>	<b>Principles of DC Circuits</b>	<b>4</b>
<b>MAT 143</b>	<b>Elementary Mathematical Analysis I</b>	<b>4</b>
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
<b>CIT 214</b>	<b>Construction Procedures</b>	<b>3</b>
ENG 101	English Composition I	3
EGG 107	Understanding Sustainability & Green Technologies	3
<b>Semester Total:</b>		<b>9</b>

### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ARC 218	Construction Methods and Materials	3
EET 270	Photovoltaic (PV) Systems	4
<b>Semester Total:</b>		<b>7</b>
<b>Total Program Credits:</b>		<b>30</b>



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

# PHYSICAL THERAPIST ASSISTANT

## ASSOCIATE IN APPLIED SCIENCE DEGREE



The Physical Therapy Assistant Program 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.

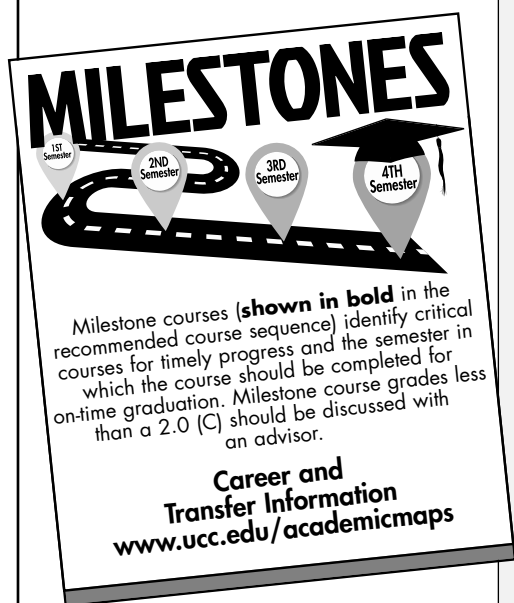
Upon successful completion of all program requirements, graduates will be able to:

- 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.

All students must complete a PTA Program Admission Form prior to starting the program. Admission information, can be found on the program website.

## AFTER UNION COUNTY COLLEGE

Graduates are eligible to take the Licensure Examination necessary for practice as a Licensed Physical Therapist Assistant.



### RECOMMENDED SEQUENCE

#### PRE-CLINICAL PHASE

COURSE#	COURSE	CR.
<b>PREREQUISITE COURSE WORK</b>		
ENG 101	English Composition I*	3
BIO 105	Anatomy and Physiology I*	4
<b>MAT 119</b>	<b>Algebra*</b>	<b>4</b>
PSY 101	General Psychology*	3
PSY 204	Lifespan Development	3
<b>OR</b>		
PSY 212	Psychology of Adulthood and Aging*	3
<b>Semester Total:</b>		<b>17</b>

#### CLINICAL PHASE

COURSE#	COURSE	CR.
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>PTA 115</b>	<b>Functional Anatomy</b>	<b>3</b>
<b>PTA 130</b>	<b>Physical Therapy Procedures I</b>	<b>6</b>
PTA 251	Independent Living for the Disabled	2
<b>Semester Total:</b>		<b>14</b>
<b>SUMMER SESSION I</b>		
PTA 140	Physical Therapy Procedures II	3
<b>Semester Total:</b>		<b>3</b>
<b>SUMMER SESSION II</b>		
BIO 106	Anatomy and Physiology II	4
<b>Semester Total:</b>		<b>4</b>
<b>FALL SEMESTER</b>		
PTA 217	Clinical Seminar and Practice I	7
<b>PTA 220</b>	<b>Physical Therapy Procedures III</b>	<b>6</b>
PTA 221	Physical Therapy Procedures IV	4
<b>Semester Total:</b>		<b>17</b>
<b>SPRING SEMESTER</b>		
PTA 223	Clinical Seminar	2
PTA 224	Clinical Practice II	12
<b>Semester Total:</b>		<b>14</b>

**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.

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.

**Prospective students in the Practical Nursing program are required to have the following:**

- A passing score on the admission Test of Essential Academic Skills (TEAS) or a GPA of greater than a 3.0
- 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:

<https://www.ucc.edu/academics/academic-divisions/division-of-allied-sciences/practical-nursing-program/>

### 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 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](http://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](mailto:info@acenursing.org)  
[www.acenursing.org](http://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.

Gainful Employment Information:  
<https://www.ucc.edu/documents/academics/certificates/prns/51.3901-Gedt.html>

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL/SPRING SEMESTER</b>		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
<b>OR</b>		
PSY 102	Psychology of Personality	3
<b>BIO 102</b>	<b>Human Biology*</b>	<b>4</b>
<b>PNU 190</b>	<b>Nursing Concepts</b>	<b>5</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING/SUMMER SEMESTER</b>		
<b>PNU 191</b>	<b>Adult Health I</b>	<b>10</b>
Free Elective		3-4
<b>Semester Total:</b>		<b>13-14</b>

### SECOND YEAR

<b>SUMMER/FALL SEMESTER</b>		
PSY 204	Lifespan Development	3
<b>OR</b>		
PSY 205	Child Psychology	3
<b>PNU 210</b>	<b>Maternal/Child, Pediatric, and Mental Health Nursing</b>	<b>9</b>
<b>Semester Total:</b>		<b>12</b>
<b>SPRING SEMESTER</b>		
<b>PNU 211</b>	<b>Adult Health II &amp; Role Transition</b>	<b>12</b>
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>52-53</b>

\* BIO 105 and BIO 106 may be substituted for BIO 102



Important information about the educational debt, earnings, and completion rates of students who attended this program can be found at <https://www.ucc.edu/administration/institutional-research/excellence-and-accountability/gainful-employment-program-disclosures/>

# 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:

- Relate psychological principles to personal, social, and organizational issues;
- Illustrate information literacy by utilizing multiple media sources and technology, and by communicating effectively in a variety of formats;
- Demonstrate understanding about the complexity of sociocultural and international diversity;

- Apply basic research methods in psychology, including research design, data analysis, and interpretation;
- Analyze major concepts, theoretical perspectives, empirical findings, and historical trends in psychology;
- Solve problems related to behavior and mental process by utilizing critical and creative thinking, skeptical inquiry, and the scientific approach;
- Evaluate evidence and ethical issues relating to psychology.

## 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.

## MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	History Gen Ed Requirement	3
	<b>Math, Science, &amp; Technology Gen Ed Requirement</b>	<b>4</b>
<b>PSY 101</b>	<b>General Psychology</b>	<b>3</b>
	Modern Language Gen Ed Requirement	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	History Gen Ed Requirement	3
	<b>Math Gen Ed Requirement</b>	<b>4</b>
<b>PSY 102</b>	<b>Psychology of Personality</b>	<b>3</b>
	Modern Language Gen Ed Requirement	3
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
	<b>Lab Science Gen Ed Requirement</b>	<b>4</b>
CST 100	Introduction to Computer Applications	3
<b>PSY 200-Level Course</b>		<b>3</b>
	Social Science Gen Ed Requirement	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
	Humanities Gen Ed Requirement	3
PSY 213	(SOC 213) Social Research Methods	3
	PSY 200-Level Course	3
	Any Gen Ed Diversity Requirement	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

Math, Science & Technology Gen Ed Requirement 4 credit hours:  
MAT 125 Recommended.

Math Gen Ed Requirement 4 credit hours:  
MAT 127 Recommended.

Social Science Gen Ed Requirement:  
SOC 101 Recommended

Any Gen Ed Diversity Requirement:  
SOC 206 Recommended



# 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.

### Rutger's 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 (PSRT 1101). 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	3
<b>ENG 102</b>	<b>English Composition II</b>	<b>3</b>
ENG 128	The Dynamics of Communication <b>OR</b>	3
ENG 129	Public Speaking	3
SOC 101	Principles of Sociology	3
PSY 101	General Psychology	3
<b>PSY 204</b>	<b>Lifespan Development</b>	<b>3</b>
<b>MAT 119</b>	<b>Algebra</b>	<b>4</b>
CST 100	Introduction to Computer Applications	4
BIO 102	Human Biology	4

### RUTGERS REQUIREMENTS – 3 CREDITS

UPR 101 (PSRT 1101)	– Introduction to the Principles of Psychosocial Rehabilitation – taken prior to entering professional phase	3
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## AFTER UNION COUNTY COLLEGE

**Graduates may transfer to Kean University, Georgian Court University, or Felician College which offer a Joint Bachelor's Degree Program in Psychology & Psychiatric Rehabilitation with the Rutgers School of Health Related Professions.**

### RECOMMENDED SEQUENCE

### PROFESSIONAL PHASE OF PROGRAM

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
PSRT 1102	Communication Techniques in Interviewing and Counseling	3
PSRT 1103	Introduction to Group Dynamics*	3
<b>PSRT 1204</b>	<b>Clinical Principles in Psychosocial Rehabilitation and Treatment*</b>	<b>3</b>
<b>Semester Total:</b>		<b>9</b>

<b>SPRING SEMESTER</b>		
<b>PSRT 1019</b>	<b>Clinical Practicum in Psychosocial Rehabilitation I*</b>	<b>6</b>
PSRT 2121	Community Resource Management and the Individual with Severe Mental Illness*	3
<b>Semester Total:</b>		<b>9</b>

<b>FALL SEMESTER</b>		
PSRT 2019	Clinical Practicum in Psychosocial Rehabilitation II*	6
PSRT 2231	Emerging Topics in Psychosocial Rehabilitation and Treatment*	3
<b>Semester Total:</b>		<b>9</b>

**Total Program Credits: 60**

\* 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) (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



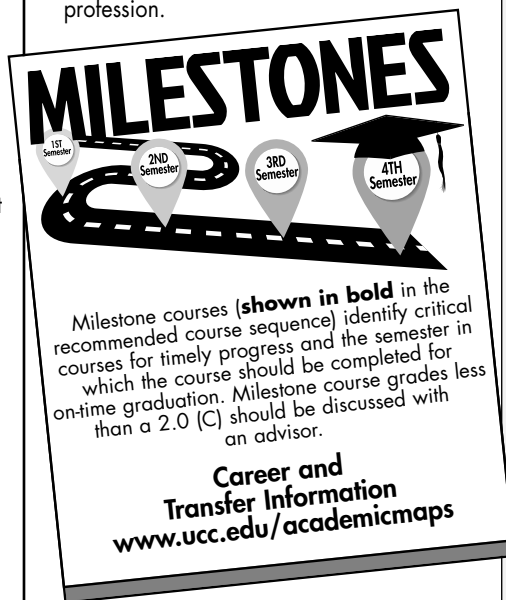
This program offers a strong foundation for students wishing to major in either public and/or business administration. Upon completion students may transfer to a four-year institution where they can continue their studies in either public or business administration. The courses in this program are designed 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	History Gen Ed Requirement	3
<b>MAT 119</b>	<b>Algebra</b>	<b>4</b>
<b>BUS 101</b>	<b>Introduction to Contemporary Business</b>	<b>3</b>
	OR	
<b>BUS 105</b>	<b>Organization and Management</b>	<b>3</b>
CST 100	Introduction to Computer Applications	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	Humanities Gen Ed Requirement	3
	History Gen Ed Requirement	3
<b>GOV 201</b>	<b>American Government and Politics</b>	<b>3</b>
	OR	
<b>GOV 202</b>	<b>American National Government</b>	<b>3</b>
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
	Humanities Gen Ed Requirement	3
<b>ECO 201</b>	<b>Principles of Economics I</b>	<b>3</b>
	OR	
<b>ECO 202</b>	<b>Principles of Economics II</b>	<b>3</b>
<b>Lab Science</b>	<b>Gen Ed Requirement</b>	<b>4</b>
BUS 201	Business Law I	3
ACC 103	Accounting I	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
GOV 204	Public Administration	3
ENG 128	The Dynamics of Communication	3
	OR	
ENG 129	Public Speaking	3
	Humanities Gen Ed Requirement	3
	Diversity Gen Ed Requirement*	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

\* GEO 201 recommended

# RADIOGRAPHY

## JFK MUHLENBERG HAROLD B. AND DOROTHY A. SNYDER SCHOOLS ASSOCIATE IN SCIENCE DEGREE



By virtue of an agreement between Union County College and **JFK 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 Muhlenberg Harold B. and Dorothy A. Snyder School of Radiography.

Students are enrolled in the School of Radiography and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Students interested in the program should contact the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools at (908) 668-2400 or (908) 668-2844. For additional information, please visit the school website at [www.jfkmuhlenbergschools.org](http://www.jfkmuhlenbergschools.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:
  - o Competency in performing routine and nonroutine (trauma) examinations in Radiography
  - o Practicing appropriate basic patient care
  - o Utilizing proper radiation protection for their patients, themselves, peers and others
  - o Demonstration of proper and effective communication skills while speaking and writing
- Practice appropriate professional ethics of a Radiographer;
- Demonstrate appropriate problem solving and critical thinking skills necessary to be a proficient healthcare provider;
- Understand the benefits of additional personal and professional growth and lifelong learning skills necessary for the changing field of Radiography.

## AFTER UNION COUNTY COLLEGE AND JFK MUHLENBERG 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.

### RECOMMENDED SEQUENCE

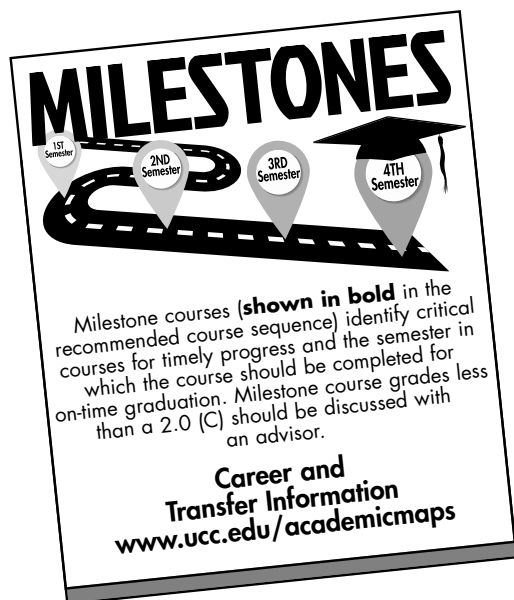
### PRE PROFESSIONAL GENERAL EDUCATION COURSES

COURSE#	COURSE	CR.
RNTM 101	Medical Terminology	1
MAT 119	Algebra	4
<b>MAT 143</b>	<b>Elementary Mathematical Analysis I</b>	<b>4</b>
	<b>OR</b>	
MAT 127	Elementary Statistics	4
ENG 101	English Composition I	3
<b>ENG 102</b>	<b>English Composition II</b>	<b>3</b>
BIO 105	Anatomy and Physiology I	4
<b>BIO 106</b>	<b>Anatomy and Physiology II</b>	<b>4</b>
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
PHY 125	Elements of Physics	3
	<b>AND</b>	
PHYL 125	Elements of Physics Laboratory	1
	<b>OR</b>	
PHY 101	General Physics I	3
	<b>AND</b>	
PHYL 111	Mechanics Laboratory	1
CST 100	Introduction to Computer Applications	3
	<b>OR</b>	
CST 101	Introduction to Information Systems	3
Humanities Gen Ed Requirement		3
<b>Total General Education Credits:</b>		<b>39</b>

NOTE: ENG 101 & ENG 102, BIO 105 & BIO 106, MAT 119, are required prerequisite courses that must be completed prior to the professional courses.

# RADIOGRAPHY

**JFK MUHLENBERG HAROLD B. AND  
DOROTHY A. SNYDER SCHOOLS  
ASSOCIATE IN SCIENCE DEGREE  
cont'd**



## 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.

#### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FIRST YEAR/FALL SEMESTER</b>		
RNTM 103	Introduction to Medical Imaging	4
RADM 120	Radiologic Procedures I	3
CLPR 901	Clinical Practicum I – 2 days per week	
<b>Semester Total:</b>		<b>7</b>
<b>FIRST YEAR/SPRING SEMESTER</b>		
RADM 110	Principles of Radiographic Exposure I	3
RADM 121	Radiologic Procedures II	3
RNTM 102	Health Care Today	2
CLPR 902	Clinical Practicum II – 3 days per week	
<b>Semester Total:</b>		<b>8</b>
<b>FIRST YEAR/SUMMER I</b>		
RADM 122	Radiologic Procedures III	2
RADM 135	Radiation Biology	2
CLPR 903	Clinical Practicum III – 3 days per week	
<b>Semester Total:</b>		<b>4</b>
<b>FIRST YEAR/SUMMER II</b>		
CLPR 904	Clinical Practicum IV – 2-4 days per week	

#### SECOND YEAR

COURSE#	COURSE	Cr.
<b>SECOND YEAR/FALL SEMESTER</b>		
RADM 211	Principles of Radiographic Exposure II	3
RADM 212	Radiographic Physics	3
RADM 223	Radiologic Procedures IV	3
CLPR 905	Clinical Practicum V – 3 days per week	
<b>Semester Total:</b>		<b>9</b>
<b>SECOND YEAR/SPRING SEMESTER</b>		
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 Assessment	1
CLPR 906	Clinical Practicum VI – 3 days per week	
<b>Semester Total:</b>		<b>13</b>
<b>SECOND YEAR/SUMMER I</b>		
CLPR 907	Clinical Practicum VII – 3 days per week	
<b>SECOND YEAR/SUMMER II</b>		
CLPR 908	Clinical Practicum VIII – 3 days per week	
<b>Total Professional Course Credits:</b>		<b>41</b>
<b>Total Program Credits:</b>		<b>80</b>

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, nuclear medicine technology 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.



# A 4-Year Degree from a top College or University begins at Union County College

**Union County College students have successfully transferred to top colleges and universities across the country, including:**

- University of California – Los Angeles • University of Southern California • University of New Haven • Florida Southern College • University of North Florida • Idaho State University • Mount Holyoke College • University of Maryland – College Park • Bloomfield College • College of New Jersey • Fairleigh Dickinson University – Madison • Kean University • Montclair State University • New Jersey City University • New Jersey Institute of Technology • Ramapo College of New Jersey • Rider University • Rowan University • Rutgers – The State University of NJ – Newark • Rutgers – The State University of NJ – New Brunswick • Seton Hall University • Stockton University • Bard College • Cornell University • CUNY John Jay College of Criminal Justice • Rochester Institute of Technology • The Ohio State University • Drexel University • American University • George Washington University • Champlain College • Becker College • Liberty University ... and many more.



**U** **UNION**  
**COUNTY**  
**COLLEGE**

**Transforming  
Our Community...  
One Student  
at a Time**

# REMOTE PILOT AND DRONE APPLICATION

## CERTIFICATE



The Remote Pilot and Drone Application certificate program will provide a solid foundation in applying engineering technology for drones. Students will learn how to design and build a working Drone with fundamentals in artificial intelligence. Students will also be able to expand on their design skills for implementation of Internet of Things ecosystems and cross platform applications.

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

- Demonstrate FAA Part 107 literacy and obtain certification as a Drone Remote Pilot In Command (PIC)
- Develop and execute implementation strategies for solving industry needs using Drones and Applications leveraging Drones.
- Perform laboratory procedures and assess the validity of experimental/diagnostic data.
- 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.

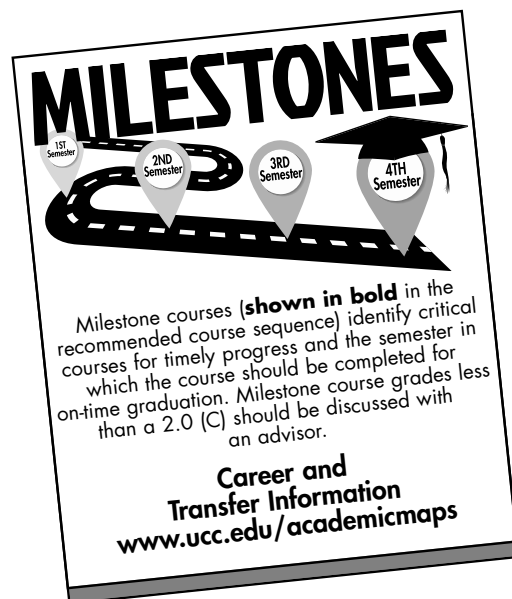
## AFTER UNION COUNTY COLLEGE

Graduates have the option of accepting positions as entry level drone designers for custom solutions, remote drone pilots, entry level analysts for drone platforms, and quality control technicians for drone manufacturing.

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 119</b>	<b>Algebra or Higher Level Math</b>	<b>4</b>
<b>EET 101</b>	<b>Principles of DC Circuits</b>	<b>4</b>
EET 209	(UAS 209) Drone Control Systems	3
<b>UAS 105</b>	<b>Remote Pilot Operations</b>	<b>3</b>
<b>Semester Total:</b>		<b>17</b>
<b>SPRING SEMESTER</b>		
CST 115	Introduction to Computer Programming	3
<b>EET 111</b>	<b>Digital Computer Fundamentals</b>	<b>4</b>
<b>EET 112</b>	<b>(UAS 112) Sensors for Drones</b>	<b>3</b>
EET 212	(UAS 212) IoT Applications for Drones	3
<b>Semester Total:</b>		<b>13</b>
<b>Total Program Credits:</b>		<b>30</b>



# RESPIRATORY CARE

## ASSOCIATE IN APPLIED SCIENCE DEGREE



The Respiratory Care (RC) degree program prepares graduates for entry-level career opportunities in respiratory care. Through a 69-credit rigorous and cohesive curriculum sequence, students will acquire the effective communication, technical, analytical and critical thinking skills necessary to function effectively as a registered respiratory therapist. The program also prepares students who wish to transfer to a 4-year institution to pursue a bachelor's degree in respiratory care or other professional and graduate programs.

Students in the Respiratory Care program are required to present the following items in order to participate in respiratory clinical courses:

- Criminal background check clearance
- Drug screening
- AHA CPR certification for the Healthcare provider
- Malpractice insurance
- Completed health records
- Official uniform

Additional information is available at: <https://www.ucc.edu/academics/academic-divisions/division-of-allied-sciences/respiratory-care-program/>

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

1. Communicate effectively in oral, written and visual forms;
2. Demonstrate ethical and professional conduct to the respiratory care code of ethics;
3. Function effectively as a registered respiratory therapist in a healthcare setting;
4. Demonstrate critical thinking in cardiopulmonary diagnosis and monitoring;
5. Manage respiratory care plans for adult, neonatal and pediatric patients.

## AFTER UNION COUNTY COLLEGE

**Graduates of the program will be eligible to sit for the National Board of Respiratory Care (NBRC) credentialing examinations necessary for practice as a licensed respiratory care practitioner (RCP).**

### RECOMMENDED SEQUENCE

#### PREREQUISITES\*

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
BIO 105	Anatomy and Physiology I	4
PSY 101	General Psychology	3
MAT 113	Math Applications	3

**Semester Total: 10**

#### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>RSP 101</b>	<b>Fundamentals of Respiratory Care</b>	<b>5</b>
RSP 102	Cardiopulmonary Pharmacology	2
RSP 110	Cardiopulmonary Anatomy and Physiology	2
<b>Semester Total:</b>		<b>12</b>

#### SPRING SEMESTER

ENG 102	English Composition II	3
<b>BIO 106</b>	<b>Anatomy and Physiology II</b>	<b>4</b>
<b>RSP 111</b>	<b>Fundamentals of Respiratory Critical Care</b>	<b>8</b>
<b>Semester Total:</b>		<b>15</b>

#### SUMMER

<b>RSP 112</b>	<b>Cardiopulmonary Pathophysiology</b>	<b>3</b>
<b>Semester Total:</b>		<b>3</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
RSP 201	Cardiopulmonary Evaluation	3
<b>RSP 202</b>	<b>Adult Critical Care</b>	<b>10</b>
RSP 210	Long-Term, Home and Rehabilitation Care	2
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
RSP 211	Neonatal Pediatric Respiratory Care	3
<b>RSP 212</b>	<b>Clinical Practice</b>	<b>7</b>
RSP 213	Special Topics Respiratory Care	4
<b>Semester Total:</b>		<b>14</b>

**Total Program Credits: 69**

\*Prerequisites cumulative GPA: 2.5 or higher; students must achieve a C+ or higher in BIO 105.



# 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. learning management system, 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>SOC 101</b>	<b>Principles of Sociology</b>	<b>3</b>
<b>PSY 101</b>	<b>General Psychology</b>	<b>3</b>
COM 100	Communications Technologies	4
History Gen Ed Requirement		3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>SOC 102</b>	<b>Social Problems</b>	<b>3</b>
PSY 105	Group Dynamics	3
PSY 102	Psychology of Personality	3
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
<b>OR</b>		
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

<b>FALL SEMESTER</b>		
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>SOC 207</b>	<b>Social Inequality</b>	<b>3</b>
HUS 101	Community Resources in Human Services	3
SOC 213	(PSY 213) Social Research Methods	3
<b>Semester Total:</b>		<b>13</b>
<b>SPRING SEMESTER</b>		
SOC 206	Minorities in American Life	3
SOC 209	Introduction to Social Policy and Welfare	3
PSY 212	Psychology of Adulthood and Aging	3
PSY or SOC 200-Level Elective*		3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* **PSY or SOC 200-Level Elective**  
(3 credits total):

PSY 204 - Lifespan Development **OR**  
 PSY 205 - Child Psychology **OR**  
 PSY 206 - Adolescent Psychology **OR**  
 SOC 219 - Gender and Work **OR**  
 SOC 273 - Marriage and the Family

# 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:**

1. Apply sociological concepts and theories to social phenomena presented in each Sociology course;
2. Utilize the scientific methods and quantitative methodologies to gather and evaluate data and draw conclusions;

3. Explain social, cultural and global variations;
4. Use critical thinking skills to analyze and solve social problems;
5. Apply sociological theories to the analysis of social institutions that influence human behavior;
6. 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.

### MILESTONES

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>SOC 101</b>	<b>Principles of Sociology</b>	<b>3</b>
	<b>Math Gen Ed Requirement</b>	<b>4</b>
	History Gen Ed Requirement	3
<b>Semester Total:</b>		<b>13</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	<b>Math, Science &amp; Tech Gen Ed Requirement*</b>	<b>4</b>
SOC 102	Social Problems	3
<b>SOC 206</b>	<b>Minorities in American Life</b>	<b>3</b>
	History Gen Ed Requirement	3
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
	<b>Lab Science Gen Ed Requirement</b>	<b>4</b>
PSY 101	General Psychology	3
	Modern Language Gen Ed Requirement	3
<b>SOC 219</b>	<b>Gender and Work</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
SOC 213	(PSY 213) Social Research Methods	3
SOC 273	Marriage and the Family	3
	Humanities Gen Ed Requirement	3
	Modern Language Gen Ed Requirement	3
	Liberal Arts Elective 200 level course**	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\*Recommended course: COM 100

\*\*Recommended courses: SOC 207  
or SOC 209

# DIAGNOSTIC MEDICAL SONOGRAPHY

## JFK MUHLENBERG HAROLD B. AND DOROTHY A. SNYDER SCHOOLS ASSOCIATE IN SCIENCE DEGREE



By virtue of an agreement between Union County College and **JFK 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 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 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.

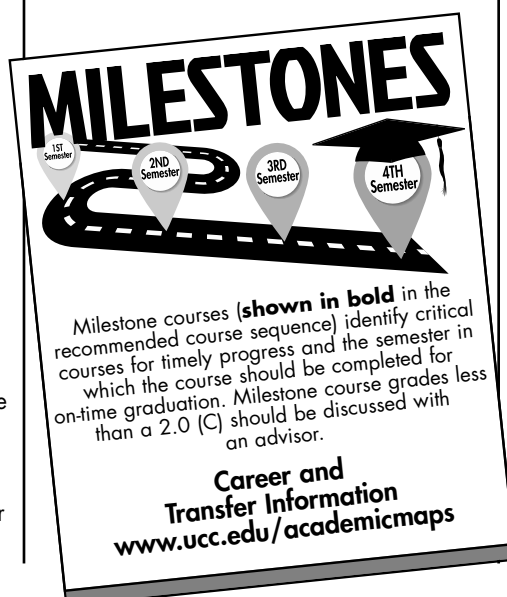
### ADMISSION INTO THE PROGRAM IS COMPETITIVE.

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 Muhlenberg Harold B. and Dorothy A. Snyder Schools Diagnostic Medical Sonography

Program (Program Number 110144).

Students are enrolled in the Schools of Diagnostic Medical Sonography and are matriculated by Union County College. They are eligible to participate in all student activities at Union County College and have the same rights and privileges as all other college students.

Students interested in the program should contact the **JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools** at (908) 668-2400 or (908) 668-2844. For additional information, please visit school website at [www.jfkmuhlenbergschools.org](http://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 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 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

### GENERAL EDUCATION REQUIREMENTS:

COURSE#	COURSE	Cr.
BIO 105	Anatomy and Physiology I	4
ENG 101	English Composition I	3
<b>MAT 119</b>	<b>Algebra</b>	<b>4</b>
<b>ENG 102</b>	<b>English Composition II</b>	<b>3</b>
MAT 127	Elementary Statistics	4
CST 100	Introduction to Computer Applications	3
<b>OR</b>		
CST 101	Introduction to Information Systems	3
ALH 201	Pathophysiology & Health Care	3
<b>BIO 106</b>	<b>Anatomy and Physiology II</b>	<b>4</b>
Humanities	Gen Ed Requirement	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
PHY 101	General Physics I	3
<b>AND</b>		
PHYL 111	Mechanics Laboratory	1
<b>OR</b>		
PHY 125	Elements of Physics	3
<b>AND</b>		
PHYL 125	Elements of Physics Laboratory	1
<b>Total:</b>		<b>41</b>

ENG 101 & ENG 102, BIO 105 & BIO 106, MAT 119, PHY 101 or PHY 125 are required prerequisite courses that must be completed prior to the professional courses.

### PROFESSIONAL COURSES

Professional Courses begin in the Summer Session I Only

The following is the sequence of the professional courses

Spring Semester Start - on a seat availability basis. This is Full time Day program. Students must be available 5 days a week, Monday - Friday.

COURSE#	COURSE	Cr.
<b>SPRING SEMESTER</b>		
DMSM 101	Patient Care	2
RNTM 101	Medical Terminology	1
<b>Semester Total:</b>		<b>3</b>
<b>SUMMER I &amp; II</b>		
DMSM 100	Introduction to Clinical Sonography	2
DMSM 102	Cross-sectional Anatomy	2
DMSM 103	Ultrasound Physics and Instrumentation – Part I	3
CLPS 901	Clinical Sonography I	
<b>Semester Total:</b>		<b>7</b>
<b>FALL SEMESTER</b>		
RNTM 102	Health Care Today	2
DMSM 105	Ultrasound of the Abdomen – Part I	3
DMSM 109	Obstetrical Sonography – Part I	3
DMSM 104	Ultrasound Physics and Instrumentation – Part II	3
CLPS 902	Clinical Sonography II	
<b>Semester Total:</b>		<b>11</b>
<b>SPRING SEMESTER</b>		
DMSM 106	Ultrasound of the Abdomen – Part II	3
DMSM 117	Obstetrical Sonography – Part II	3
CLPS 903	Clinical Sonography III	
<b>Semester Total:</b>		<b>6</b>
<b>SUMMER I &amp; II</b>		
DMSM 107	Ultrasound of the Female Pelvis	3
DMSM 111	Ultrasound of Superficial Structures I	3
CLPS 904	Clinical Sonography IV	
<b>Semester Total:</b>		<b>6</b>
<b>FALL SEMESTER</b>		
DMSM 118	Ultrasound of Superficial Structures II	3
DMSM 116	Ultrasound Registry Review	3
CLPS 905	Clinical Sonography V	
<b>Semester Total:</b>		<b>6</b>
<b>Total Professional Credits:</b>		<b>39</b>
<b>Total Program Credits:</b>		<b>80</b>

NOTE: The remaining general education courses listed in this sequence may be taken in any semester including the Winter sessions if the student chooses to do so.

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 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 127</b>	<b>Elementary Statistics</b>	<b>4</b>
COM 100	Communications Technologies	4
<b>BSM 101</b>	<b>Introduction to Sport Management</b>	<b>3</b>
BUS 105	Organization and Management	3
<b>OR</b>		
BUS 107	Human Resources Management	3
<b>Semester Total:</b>		<b>17</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>OR</b>		
ENG 122	Introductory Technical and Business Writing	3
PSY 101	General Psychology	3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>BSM 110</b>	<b>The Evolution of American Sports</b>	<b>3</b>
<b>Semester Total:</b>		<b>13</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
Humanities	Gen Ed Requirement	3
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
SOC 101	Principles of Sociology	3
<b>BSM 205</b>	<b>Sports in Society</b>	<b>3</b>
<b>ACC 103</b>	<b>Accounting I</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
BSM 210	Sport & Law	3
BSM 220	Current Issues in Sports	3
ECO 202	Principles of Economics II	3
BUS 208	Principles of Marketing	3
BUS 290	Co-op Education Experience in Business*	3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

\* Students planning to transfer may take COM 101 or ECO 201.

Students should ascertain from the transfer institution which course is preferred.

# SUPPLY CHAIN MANAGEMENT

## ASSOCIATE IN SCIENCE DEGREE



The Supply Chain Management degree program provides fundamental principles of supply chain management and logistics. Students learn the roles and functions of inventory control and distribution planning, transportation systems, purchasing, computerized logistics, and careers in the field.

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

- Differentiate supply chain management from logistics;
- Explain purchasing processes, policies, and procedures;
- Explain how technology is utilized in logistics and supply chain management;
- Outline computer and supply chain security measures;
- Compare modes of transportation and related policies;
- Communicate effectively in both oral and written forms for all business settings.

## AFTER UNION COUNTY COLLEGE

Graduates will be prepared with the knowledge and skills that have labor market value to the SCM industry. Graduates will be equipped for careers or advancement in the field of supply chain management be able to continue their education by transferring to a four-year college.

### MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (**shown in bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>CST 100</b>	<b>Introduction to Computer Applications</b>	<b>3</b>
BUS 105	Organization and Management	3
BUS 110	Business and Technology	3
<b>SCM 101</b>	<b>Introduction to Supply Chain Management</b>	<b>3</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ACC 103	Accounting I	3
SCM 105	Inventory Management	3
<b>SCM 110</b>	<b>Logistics Technology</b>	<b>3</b>
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>Semester Total:</b>		<b>13</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ECO 201	Principles of Economics I	3
<b>MAT 143</b>	<b>Elementary Mathematical Analysis I</b>	<b>4</b>
BUS 201	Business Law I	3
SCM 201	Transportation Operations	3
<b>SCM 205</b>	<b>Purchasing and Supply Chain Management</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
SCM 210	Operations Management	3
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
MAT 246	Business Statistical Analysis	4
ECO 202	Principles of Economics II	3
Humanities Gen Ed Requirement		3
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>

# SUPPLY CHAIN MANAGEMENT

## CERTIFICATE OF ACHIEVEMENT



The Supply Chain Management certificate of achievement program provides fundamental principles of supply chain management and logistics. Students learn the roles and functions of inventory control and distribution planning, transportation systems, purchasing, computerized logistics, and careers in the field.

The certificate of achievement program will prepare students who have already earned a degree to work in the supply chain management field.

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

- Differentiate supply chain management from logistics;
- Explain purchasing processes, policies, and procedures;
- Explain how technology is utilized in logistics and supply chain management;
- Outline computer and supply chain security measures;
- Compare modes of transportation and related policies;
- Communicate effectively in both oral and written forms for all business settings.

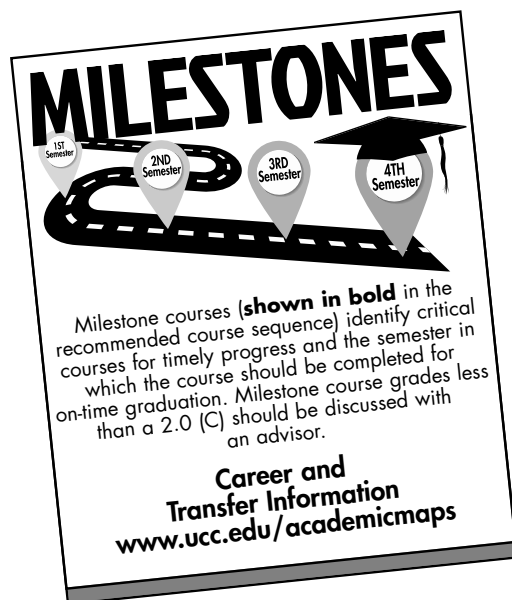
### AFTER UNION COUNTY COLLEGE

Graduates will be prepared with the knowledge and skills that have labor market value to the SCM industry. Graduates will be equipped for careers or advancement in the field of supply chain management.

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
<b>SCM 101</b>	<b>Introduction to Supply Chain Management</b>	<b>3</b>
SCM 201	Transportation Operations	3
SCM 205	Purchasing and Supply Chain Management	3
<b>Semester Total:</b>		<b>9</b>
<b>SPRING SEMESTER</b>		
SCM 105	Inventory Management	3
SCM 110	Logistics Technology	3
SCM 210	Operations Management	3
<b>Semester Total:</b>		<b>9</b>
<b>Total Program Credits:</b>		<b>18</b>





# 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
<b>BIO 111</b>	<b>General Biology I</b>	<b>4</b>
<b>EGG 101</b>	<b>Introduction to Engineering: Mathematics and Applications</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
<b>CHE 111</b>	<b>General Chemistry I</b>	<b>4</b>
<b>BIO 112</b>	<b>General Biology II</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
	Humanities Gen Ed Requirement	3
<b>MAT 271</b>	<b>Unified Calculus III</b>	<b>4</b>
CHE 112	General Chemistry II	4
<b>PHY 111</b>	<b>Mechanics AND</b>	<b>3</b>
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
<b>Semester Total:</b>		<b>15</b>

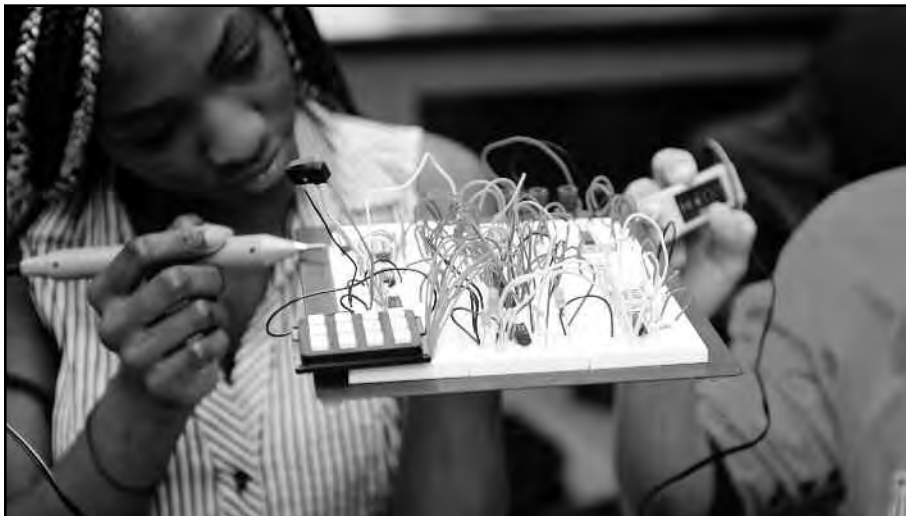
<b>SPRING SEMESTER</b>		
EGG 107	Understanding Sustainability & Green Technologies	3
EGG 111	Engineering & Computer Graphics	2
PHY 201	Electricity and Magnetism	3
<b>PHYL 201</b>	<b>Electricity and Magnetism Laboratory</b>	<b>1</b>
ECO 202	Principles of Economics II	3
	Humanities or Social Science Gen Ed Requirement	3
<b>Semester Total:</b>		<b>15</b>

**Total Program Credits: 60**

\* The stated sequence of courses for the Sustainability Science program assumes that the student is math-ready for calculus.

# 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 119 Algebra*</b>		<b>4</b>
Up to 8 Technical Studies Credits Awarded <sup>1</sup>		8
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>OR</b>		
ENG 122	Introductory Technical and Business Writing	3
<b>CST Gen Ed Requirement<sup>2</sup></b>		<b>3</b>
Elective Technical <sup>3</sup>		4
Up to 8 Technical Studies Credits Awarded		8
<b>Semester Total:</b>		<b>18</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
<b>Lab Science Gen Ed Requirement<sup>4</sup></b>		<b>4</b>
Elective Technical <sup>3</sup>		4
Up to 5 Technical Studies Credits Awarded		5
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
Elective Technical <sup>3</sup>		4
Humanities/Social Science/History Gen Ed Requirement		3
Up to 4 Technical Studies Credits Awarded		4
<b>Semester Total:</b>		<b>11</b>
<b>Total Program Credits:</b>		<b>60</b>

\* 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.

<sup>1</sup> 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.

<sup>2</sup> Choose any 3 credit computer science OR computer information systems course from the list of Gen Ed courses in the current catalog.

<sup>3</sup> 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.

<sup>4</sup> Choose any 4 credit lab science course from the list of Gen Ed courses in the current catalog.

# 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 or Theater. Students will explore the various styles and periods of theater throughout history. Students will develop skills in movement, voice, and acting. 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, in written and oral communication, 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;
- Use technology for learning and research pertinent to musical and theatrical appreciation, history, or performance;
- Apply critical thinking and problem-solving skills to situations involving theater.

## 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.

## MILESTONES

Milestone courses (shown in **bold** in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
ENG 128	The Dynamics of Communication	3
<b>OR</b>		
ENG 129	Public Speaking	3
<b>Math Gen Ed Requirement</b>		<b>4</b>
<b>FIA 127</b>	<b>Introduction to Acting</b>	<b>3</b>
FIA 124	Theater Appreciation	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
History Gen Ed requirement		3
<b>Lab Science Gen Ed Requirement</b>		<b>4</b>
<b>FIA 132</b>	<b>Introduction to Dramatic Literature</b>	<b>3</b>
FIA 227	Advanced Acting	3
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	Cr.
<b>FALL SEMESTER</b>		
Social Science Gen Ed Requirement		3
<b>Math, Science, Technology Gen Ed Requirement</b>		<b>4</b>
FIA 105	Music Appreciation	3
<b>FIA 232</b>	<b>Modern and Contemporary Dramatic Literature</b>	<b>3</b>
<b>Semester Total:</b>		<b>13</b>
<b>SPRING SEMESTER</b>		
Humanities Gen Ed Requirement		3
Modern Language Gen Ed Requirement		3
History Gen Ed requirement		3
PSY 101	General Psychology	3
Liberal Arts Elective		3
<b>Semester Total:</b>		<b>15</b>
<b>Total Program Credits:</b>		<b>60</b>

# 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 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 degree program or other areas of interest and are eligible to take advantage of the many transfer/articulation agreements Union County College has with some of the top four-year colleges and universities in the country. See a transfer advisor for details.

### MILESTONES

1ST  
Semester

2ND  
Semester

3RD  
Semester

4TH  
Semester

Milestone courses (shown in bold in the recommended course sequence) identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades less than a 2.0 (C) should be discussed with an advisor.

**Career and  
Transfer Information**  
[www.ucc.edu/academicmaps](http://www.ucc.edu/academicmaps)

## RECOMMENDED SEQUENCE

### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
	Modern Language Gen Ed Requirement	3
	History Gen Ed requirement	3
	<b>Math Gen Ed Requirement</b>	<b>4</b>
<b>FIA 109</b>	<b>Introduction to Drawing</b>	<b>3</b>
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
	History Gen Ed requirement	3
	<b>Lab Science Gen Ed Requirement</b>	<b>4</b>
<b>FIA 110</b>	<b>Introduction to Painting</b>	<b>3</b>
FIA 111	Art History Survey I	3
	<b>OR</b>	
FIA 112	Art History Survey II	3
<b>Semester Total:</b>		<b>16</b>

### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
PSY 101	General Psychology	3
	<b>Math, Science, Technology Gen Ed Requirement</b>	<b>4</b>
FIA 108	Appreciation of Art	3
FIA 115	Fundamentals of Figure Drawing	3
	Liberal Arts Elective*	3
<b>Semester Total:</b>		<b>16</b>
<b>SPRING SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
	<b>OR</b>	
ENG 129	Public Speaking	3
	Humanities Gen Ed Requirement	3
	Social Science Gen Ed Requirement	3
	FIA Elective*	3
<b>Semester Total:</b>		<b>12</b>
<b>Total Program Credits:</b>		<b>60</b>

\* Students are encouraged to choose electives from one of the following areas of concentration:

#### 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

Enter **Union** as a freshman, and then



**Exit**



# as a Junior to more than 50 Colleges & Universities

**UNION COUNTY COLLEGE** has dual admissions or transfer agreements with prestigious colleges and universities throughout the United States.



Transforming  
Our Community...  
One Student  
at a Time

Our agreements have been carefully structured to ensure qualified graduates admission as Juniors to over fifty four-year institutions.

As tuition at four-year colleges continues to rise, consider the economic advantage of spending your first two years at Union County College without sacrificing time or educational quality in your pursuit of a Bachelor's Degree.

- ▲ More than 60 challenging programs of study
- ▲ Distinguished faculty
- ▲ Convenient local campuses
- ▲ Up-to-date technology
- ▲ Small class size
- ▲ Financial assistance





Transforming  
Our Community...  
One Student  
at a Time

# YOUR GUIDE TO UNION COUNTY COLLEGE'S COURSE DESCRIPTIONS

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ASTL • Astronomy Lab	145	HUS • Human Services	180
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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

Financial Accounting is the focus for this introductory course in Accounting. During the initial part of the course, students learn and apply fundamental bookkeeping procedures, including debit and credit analysis, journalizing, posting, and completing a trial balance. Adjustments and producing the Income Statement and Balance Sheet are essential elements for students in learning the accounting cycle. Students will also learn about merchandising accounting, inventory costing methods, and will gain some exposure to specialized journals and the subsidiary ledgers. Additional topics covered include bank reconciliations, bad debts and depreciation methods. At the end of the course, students focus on recording gains and losses on the disposal of assets. Prerequisite: ENG 097, if required.  
3 lecture hours per week  
3 credit hours

### ACC 104 – Accounting II

This course is a continuation of ACC 103. Topics include accounting for partnerships and corporations with an emphasis on equity structures, financial statements, and journal entries. Continuing with corporate accounting, students study investment income with gains and losses, corporate bonds, and currency differentials. Analysis of financial statements is a critical topic covered. These include the Cash Flow Statement, Income Statement and Balance Sheet. A substantial area of study covers managerial accounting, including manufacturing accounting. Prerequisite: ACC 103 or the equivalent  
3 lecture hours per week  
3 credit hours

### ACC 203 – Intermediate Accounting I

This course covers the application of accounting theory to the classification of assets, liabilities, and equity. Additional topics include accounting for intangible assets, consigned inventory and cash management. Material covered is FASB and AICPA oriented. Prerequisite: ACC 104 or the equivalent  
3 lecture hours per week  
3 credit hours

### ACC 204 – Intermediate Accounting II

This course is a continuation of Intermediate Accounting I with an analytical approach to studying the Income Statements, retained earnings, and changes in financial position. Influences of federal taxation on financial reporting, consolidation and branch accounting are examined. Material is FASB and AICPA oriented. Prerequisite: ACC 203  
3 lecture hours per week  
3 credit hours

### ACC 205 – Cost Accounting

This course covers the theory and concepts applied to accounting for costs of manufacturing operations. Topics include 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

This course covers 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  
3 lecture hours per week  
3 credit hours

### ACC 211 – Federal Taxes I

This course is a study of Internal Revenue codes commonly used by individuals and small businesses for returns, rates, credits, gross income inclusions, gains and losses, basis, dividends, deductions, and preparation of individual returns. Prerequisite: ACC 103  
3 lecture hours per week  
3 credit hours

### ACC 212 – Federal Taxes II

This course is a continuation of ACC 211 with an emphasis on partnerships and corporations, estates and trusts. A study of Social Security taxes and Federal Estate tax complement the subject matter covered. Prerequisite: ACC 211  
3 lecture hours per week  
3 credit hours

### ACC 290 – Co-op Education Experience in Accounting

This course is 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. Prerequisite: ACC 203 or the equivalent. Division approval required  
200 externship hours  
3 credit hours

## ADM • Administrative Support

### ADM 101 – Keyboarding for the Computer I

This course is designed for those who plan to use a computer for personal and professional purposes. Students learn the alphabetic, numeric, and symbol keys, including the ten-key pad on PCs. The basic skills needed for document formatting are taught. Reports, letters, and memoranda are introduced. This course is open to all majors. Prerequisites: ENG 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 approval of Division  
1 lecture hour and 2 laboratory hours per week  
2 credit hours

**Puzzled by Prerequisites?**

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

**ADM 110 – Health Care Computer Skills**

This course covers mastering the correct keyboard techniques and building key-boarding 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, copy-right, 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.

Prerequisites: 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.

Prerequisites: 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, speller/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.

Prerequisite: ADM 101  
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.

Prerequisite: ADM 101  
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.

Prerequisite: ADM 101  
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, autoshapecs, 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.

Prerequisite: ADM 101  
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.  
Approximately 200 hours  
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 & 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 may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.  
Prerequisite: ENG 096, if required  
3 lecture hours per week  
3 credit hours

### ▲ ARB 102 – Beginning Arabic II

This is a continuation of ARB 101. This course will build on the student's knowledge of Arabic 101 through the development of communicative language via classroom and web-based activities. Emphasis on audio-oral skills, reading, and advanced grammatical structures. Native speakers may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.  
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.  
Co-requisite: ARCL 101  
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  
Co-requisite: ARCL 102  
3 lecture and 5 laboratory hours per week  
5 credit hours

### ARC 105 – Introduction to Architecture and Culture

This course is 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  
Co-requisite: ARCL 205  
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  
Co-requisite: ARCL 206  
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  
Co-requisite: ARCL 210  
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  
3 lecture hours per week  
3 credit hours

## **ARC 224 – Structural Design I**

This course introduces the basic principles of static equilibrium of external forces in engineered systems, including the use of free-body diagrams, the locations of centroids, and the calculation of area moments of inertia. Practical problems including simple structures, trusses, and frames are analyzed, preparing the students for further study of the strength of materials, structural analysis, and design. Special topics for architectural applications are introduced. 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

## **ARCL • Architecture Lab**

### **ARCL 101 – Architectural Design I Laboratory**

This is a co-requisite laboratory course for ARC 101  
Co-requisite: ARC 101

### **ARCL 102 – Architectural Design II Laboratory**

This is a co-requisite laboratory course for ARC 102.  
Co-requisite: ARC 102

### **ARCL 205 – Architectural CAD Design Laboratory**

This is a co-requisite laboratory course for ARC 205.  
Co-requisite: ARC 205

## **ARCL 206 – Architectural 3D Design Laboratory**

This is a co-requisite laboratory course for ARC 206.  
Co-requisite: ARC 206

### **ARCL 210 – Portfolio Development and Presentation Methods Laboratory**

This is a co-requisite laboratory course for ARC 210.  
Co-requisite: ARC 210

## **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. Pre-requisite: ENG 097, if required  
Co-requisite: ASL 102, except when taken as modern language requirement only  
3 lecture hours per week  
3 credit hours

### **▲ ASL 102 – Visual-Gestural Communication**

In this course, students will develop the skills for the visual-gestural aspects of communication that 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 as well as 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 conduct research on the similarities and differences between American Deaf Culture and visual-gestural/non-manual aspects.  
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  
3 lecture hours per week  
3 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 ASL 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 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  
2 lecture and 2 laboratory hours per week  
3 credit hours

**ASL 205 – Linguistics of American Sign Language**

Conducted in American Sign Language (ASL), the course is descriptive and data-oriented rather than theoretical. The course gives an historical overview of social and linguistic events that influence transformations in ASL; introduction to structure and organizational properties of ASL as identified through linguistic research; review of other languages that share similar organizational principles; discussion of semantic hierarchy and framework for analyzing semantic properties of ASL.

Prerequisite: ASL 103  
Co-requisites: ASL 200, ASL 201 or permission of Division Dean's Office  
1 lecture hours per week  
1 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 various genres of American Sign Language and Deaf literature. Students develop basic skills in ASL Literature. Concentration is on the work of current, recognized narrators in both literacy and face-to-face storytelling traditions.

Prerequisite: ASL 201, 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.

Prerequisites: ENG 096  
Co-requisite: ASTL 101  
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 spectroscope 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: ENG 096  
Co-requisite: ASTL 102  
3 lecture hours and 3 laboratory hours per week  
4 credit hours

## **ASTL • Astronomy Lab**

### **ASTL 101 – Astronomy of the Solar System Laboratory**

This is a co-requisite laboratory course for AST 101.

Co-requisite: AST 101

### **ASTL 102 – Astronomy Beyond the Solar System Laboratory**

This is a co-requisite laboratory course for AST 102.

Co-requisite: AST 102

## **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.

Co-requisite: AUTL 100

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

Co-requisite: AUTL 101

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

Co-requisite: AUTL 102

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

Co-requisite: AUTL 103

3 lecture and 3 laboratory hours per week  
4 credit hours

### **AUT 121 – Automotive Electrical 1**

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

Co-requisite: AUTL 121

3 lecture and 3 laboratory hours per week  
4 credit hours

**AUT 122 – Automotive A/C & Heating**

This course is designed to introduce the student to the basic theories and principles of refrigeration and their applications in the automotive air conditioning and heating system. The student will study the basic theories and principles of refrigerant, safety and environmental concerns, and the related tools and equipment needed to service these systems. The student will learn the associated electrical system controls and operations that allow air delivery, filtration, and temperature control into the automobile. The cooling system in relation to the heating system of the automobile will be covered. The student will perform related hands-on tasks to recharge, evacuate, purge, and diagnose heating and A/C problems. Included in this course will be the information and test for handling automotive refrigerant.

Prerequisite: AUT 121

Co-requisite: AUTL 122

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

Co-requisite: AUTL 131

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

Co-requisite: AUTL 201

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

Co-requisite: AUTL 202

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

Co-requisite: AUTL 203

3 lecture hours, and 3 laboratory hours per week  
4 credit hours

**AUT 204 – Automotive Drivetrains**

This course covers the drivetrain and the components common in today's automobile. Covered topics include front-wheel drive, rear-wheel drive, four-wheel drive, and all-wheel drive transmissions systems. The power delivery to the wheels through the clutch, torque converter, transmission, differential and drive shafts are part of this course. Theory and common maintenance procedures will be covered. Constant-velocity axles and driveshaft overhaul will be covered. Included will be a section on diagnostics, noise, and vibration causes and repairs.

Prerequisite: AUT 100 and AUT 121

3 lecture 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 hours per week

3 credit hours

**AUT 290 – Co-op Education Experience in Automotive Technology**

This course is a work-externship comprising approximately 200 hours of employment related to automotive technology with a dealership, independent or specialty auto shop, chain store, municipality, fleet or corporate facility.

200 contact hours

3 credit hours

**AUTL • Automotive Technology Lab****AUTL 100 – Automotive Fundamentals Laboratory**

This is a co-requisite laboratory course for AUT 100.

Co-requisite: AUT 100

**AUTL 101 – Steering/Suspension Systems Laboratory**

This is a co-requisite laboratory course for AUT 101.

Co-requisite: AUT 101

**AUTL 102 – Manual Drive Trains Laboratory**

This is a co-requisite laboratory course for AUT 102.

Co-requisite: AUT 102

**AUTL 103 – Brake Systems Laboratory**

This is a co-requisite laboratory course for AUT 103.

Co-requisite: AUT 103

**AUTL 121 – Automotive Electrical 1 Laboratory**

This is a co-requisite laboratory course for AUT 121.

Co-requisite: AUT 121

**AUTL 122 – Automotive A/C & Heating Laboratory**

This is a co-requisite laboratory course for AUT 122.

Co-requisite: AUT 122



### **AUTL 131 – Automotive Engine Performance 1 Laboratory**

This is a co-requisite laboratory course for AUT 131.  
Co-requisite: AUT 131

### **AUTL 201 – Engine Repair Laboratory**

This is a co-requisite laboratory course for AUT 201.  
Co-requisite: AUT 201

### **AUTL 202 – Automotive Electrical 2 Laboratory**

This is a co-requisite laboratory course for AUT 202.  
Co-requisite: AUT 202

### **AUTL 203 – Automatic Transmission Laboratory**

This is a co-requisite laboratory course for AUT 203.  
Co-requisite: AUT 203

## **BIO • Biology**

### **▲ BIO 101 – Introduction to Biology**

This is a 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.  
Co-requisite: BIOL 101  
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-BIO 106.  
Co-requisite: BIOL 102  
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.  
Co-requisite: BIOL 103  
3 lecture and 3 laboratory hours per week  
4 credit hours

### **▲ BIO 104 – A Survey of the Animal Kingdom**

This is a one-semester survey course 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 a weekend may be required in lieu of some regularly scheduled lab sessions.  
Co-requisite: BIOL 104  
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, if required  
Co-requisite: BIOL 105  
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  
Co-requisite: BIOL 106  
3 lecture and 3 laboratory hours per week  
4 credit hours

### **BIO 107 – Decisions for Wellness**

This is a one-semester course for non-Biology majors 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**

This course is 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  
Co-requisite: BIOL 108  
3 lecture and 3 laboratory hours per week  
4 credit hours

### **▲ BIO 110 – Human Heredity**

This is 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.  
Co-requisite: BIOL 110  
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

Co-requisite: BIOL 111

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

Co-requisite: BIOL 112

3 lecture and 3 laboratory hours per week  
4 credit hours

**BIO 113 – Plants, People, and Society**

The course studies how, why, and where plants grow and the direct and indirect effects they have on diverse cultures around the world. Life on Earth, including human life, depends on green plants. The development of civilization has paralleled the use and domestication of plants for food, fiber, medicine, fuel, and ornamentation. Students will learn how the use of 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.

Prerequisite: ENG 097, if required

Co-requisite: BIOL 113

3 lecture and 3 laboratory hours per week  
4 credit hours

**BIO 120 – Introduction to Biology**

BIO 101 without the laboratory component. This course will not fulfill a college laboratory science requirement. 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**

This is 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.

Co-requisite: BIOL 204

3 lecture and 3 laboratory hours per week  
4 credit hours

**▲ BIO 208 – Ecology**

This is 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.

Co-requisite: BIOL 208

3 lecture and 3 laboratory hours per week  
4 credit hours

**BIO 210 – Hydroponics**

This course covers the fundamentals of hydroponics: a growing system using water, light, and nutrients but no soil. An overview of global hunger, plant physiology, and sustainability will be included. This course also includes a hands-on experiment that includes designing and building a hydroponic system, budgeting, statistics, and growing microgreens.

Prerequisites: BIO 113 or approval of Division

Co-requisite: BIOL 210

3 lecture and 3 laboratory hours per week  
4 credit hours

**BIO 211 – Medicinal Plants**

This course will focus on the use of plants for medicinal and other purposes. Topics include poisonous plants; medicinal plants from different cultures and cross-cultural aspects of plants and medicines; chemistry and biological significance of natural products; and natural products from plants in modern medicine.

Prerequisites: BIO 111 and BIO 112 or approval of Division

3 lecture hours per week  
3 credit hours

**▲ BIO 240 – Genetics**

Genetics is the study of an organism's biological information. This includes how organisms use biological information to survive and how biological information is passed to progeny. Students will explore inheritance, gene structure, gene function, gene mutation, and ethical issues related to genetics. Laboratory is included. Additionally, students will develop skills in critical thinking, scientific inquiry, problem solving, and scientific communication. Prerequisites: BIO 111, BIO 112 or permission of Division Dean's office  
Co-requisite: BIOL 240 - Genetics Laboratory  
3 lecture and 3 laboratory hours per week  
4 credit hours

**BIOL • Biology Lab****BIOL 101 – Introduction to Biology Laboratory**

This is a co-requisite laboratory course for BIO 101.  
Co-requisite: BIO 101

**BIOL 102 – Human Biology Laboratory**

This is a co-requisite laboratory course for BIO 102.  
Co-requisite: BIO 102

**BIOL 103 – Environmental Science Laboratory**

This is a co-requisite laboratory course for BIO 103.  
Co-requisite: BIO 103

**BIOL 104 – A Survey of the Animal Kingdom Laboratory**

This is a co-requisite laboratory course for BIO 104.  
Co-requisite: BIO 104

**BIOL 105 – Anatomy and Physiology I Laboratory**

This is a co-requisite laboratory course for BIO 105.  
Co-requisite: BIO 105

**BIOL 106 – Anatomy and Physiology II Laboratory**

This is a co-requisite laboratory course for BIO 106.  
Co-requisite: BIO 106

**BIOL 107 – Decisions for Wellness Laboratory**

This is a co-requisite laboratory course for BIO 107.  
Co-requisite: BIO 107.

**BIOL 108 – Microbiology Laboratory**

This is a co-requisite laboratory course for BIO 108.  
Co-requisite: BIO 108

**BIOL 110 – Human Heredity Laboratory**

This is a co-requisite laboratory course for BIO 110.  
Co-requisite: BIO 110

**BIOL 111 – General Biology I Laboratory**

This is a co-requisite laboratory course for BIO 111.  
Co-requisite: BIO 111

**BIOL 113 – Plants, People, and Society Laboratory**

This is a co-requisite laboratory course for BIO 113.  
Co-requisite: BIO 113

**BIOL 112 – General Biology II Laboratory**

This is a co-requisite laboratory course for BIO 112.  
Co-requisite: BIO 112

**BIOL 204 – Introduction to Marine Biology Laboratory**

This is a co-requisite laboratory course for BIO 204.  
Co-requisite: BIO 204.

**BIOL 208 – Ecology Laboratory**

This is a co-requisite laboratory course for BIO 208.  
Co-requisite: BIO 208.

**BIOL 210 – Hydroponics**

This is a co-requisite laboratory course for BIO 210.  
Co-requisite: BIO 210

**BIOL 240 – Genetics Laboratory**

This is a co-requisite laboratory course for BIO 240.  
Co-requisite: BIO 240  
3 laboratory hours per week

**BSM • Sport Management****BSM 101 – Introduction to Sport Management**

This course is an overview of sport management and presents both the theoretical foundations and the subsequent 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 credit hours

**BSM 110 – The Evolution of American Sports**

This course explores the evolution of American sports from the early Puritan mistrust of sporting events through the 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, 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.  
Prerequisite: BSM 101 and ENG 101  
3 lecture hours per week  
3 credit hours

**BSM 210 – Sport & Law**

This course examines legal issues affecting the safe development and delivery of sport and physical activity programs. Major topics include equal opportunity legislation, tort liability, product liability, participant liability, and the legal rights and obligations of supervisors and participants. In addition, the course examines the laws and regulations which govern the business of sport and sport organizations.  
Prerequisites: BSM 101, 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 sport, 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 sports leagues, media influences on sports, new media technology and its impact on sports, fantasy sports, and the significant issues of youth sports.  
Prerequisite: 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 hours per week  
3 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 the 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 the 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 223 – Introduction to Entrepreneurism**

This course provides a clear and comprehensive introduction to business skills and principles, which support independent business innovation, ownership, and management. This course departs from traditional small business management courses by incorporating new themes and principles of management more appropriate to self-conceived and self-directed small business innovators striving to survive in a dynamic global and technological business environment. Topics include the innovative process, creating markets, and technology support of innovation. Students learn how a small business can establish a market presence and compete successfully against large competitors.

3 lecture hours per week  
3 credit hours

**BUS 290 – Co-op Education Experience 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 only open to matriculated students in the A.A.S. and A.S. degree business programs. Students should take this course in their last year of the program.

Prerequisite: Division approval required  
200 contact hours  
3 credit hours

**BUS 346 - Developing Managerial Competence**

This course includes both theoretical and practical aspects of management. It provides a hands-on approach to improving a student's ability to successfully manage employees in the workplace. Effective business practices for a variety of management challenges will be emphasized.

Prerequisite: BUS 101  
3 lecture hours per week  
3 credit hours

THIS ADVANCED-LEVEL COURSE IS PART OF THE 3+1 PARTNERSHIP WITH BERKELEY COLLEGE. THE COURSE IS ONLY AVAILABLE TO STUDENTS WHO COMPLETED AN ASSOCIATE DEGREE IN BUSINESS MANAGEMENT AND ARE ACCEPTED AT BERKELEY COLLEGE.

**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.

Co-requisite: CHEL 101  
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.

Co-requisite: CHEL 105  
3 lecture and 3 laboratory hours per week  
4 credit hours

**▲ CHE 107 – The Chemistry of Forensic Science**

CHE 107 will introduce various methodologies and applications used in the forensic context. This course reviews the challenges, methods and analyses of forensic science from a chemical perspective. Topics discussed include organic and inorganic chemical analyses of physical evidence, drugs and poisons, forensic toxicology, explosives, and the chemistry of color and colorants. Laboratory is included. Analyzing physical evidence using recent developments in non-instrumental and instrumental techniques. 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 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.

Co-requisite: CHEL 111  
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  
Co-requisite: CHEL 112  
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.

Co-requisite: CHEL 113  
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.

Co-requisite: CHEL 114  
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.

Prerequisite: 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  
Co-requisite: CHEL 211  
3 lecture and 4 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  
Co-requisite: CHEL 212  
3 lecture and 4 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

**CHEL • Chemistry Lab****CHEL 101 – College Chemistry Laboratory**

This is a co-requisite laboratory course for CHE 101.

Co-requisite: CHE 101

**CHEL 105 – Chemistry-Health Sciences Laboratory**

This is a co-requisite laboratory course for CHE 105.

Co-requisite: CHE 105

**CHEL 107 - The Chemistry of Forensic Science Laboratory**

This is a co-requisite laboratory course for CHE 107.

Co-requisite: CHE 107

**CHEL 111 – General Chemistry I Laboratory**

This is a co-requisite laboratory course for CHE 111.

Co-requisite: CHE 111

**CHEL 112 – General Chemistry II Laboratory**

This is a co-requisite laboratory course for CHE 112.

Co-requisite: CHE 112

**CHEL 113 – Principles of Inorganic Chemistry Laboratory**

This is a co-requisite laboratory course for CHE 113.

Co-requisite: CHE 113

**CHEL 114 – Principles of Organic Chemistry and Biochemistry Laboratory**

This is a co-requisite laboratory course for CHE 114.

Co-requisite: CHE 114

**CHEL 211 – Organic Chemistry I Laboratory**

This is a co-requisite laboratory course for CHE 211.

Co-requisite: CHE 211

## CHEL 212 – Organic Chemistry II Laboratory

This is a co-requisite laboratory course for CHE 212.

Co-requisite: CHE 212

## 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 may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.

Prerequisite: ENG 096, if required

3 lecture hours per week

3 credit hours

### ▲ CHN 102 – Beginning Mandarin Chinese II

This course is a continuation of CHN 101. Emphasis is placed 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. Students will be expected to understand, speak, read, and write new words encountered in the textbook and other sources. Media will be incorporated into classroom experience. Native speakers may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.

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

Co-requisite: CITL 108

2 lecture and 2 laboratory hours per week

3 credit hours

### CIT 201 – Structural Design

This course is a study of the fundamentals of structural design and drafting. Applications in steel, reinforced concrete, and wood construction are covered. The student will learn to reference appropriate codes and specifications. Methods for selecting standard beams, columns, tension members, connections, and concrete reinforcing bars will be studied and practiced. Structural framing plans, details and shop drawings are also covered.

Prerequisites: CIT 210, MET 109

3 lecture hours 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

Co-requisite: CITL 205

3 lecture hours and 3 laboratory hours per week

4 credit hours

### CIT 210 – Strength of Materials

This is 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

This course provides 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

This course is 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. Pumps are also 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 per week

3 credit hours



## **CIT 290 – Co-op Education Experience in Construction Engineering 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  
200 contact hours  
3 credit hours

## **CITL • Construction Engineering Technology Laboratory**

### **CITL 108 – Soil Mechanics Laboratory**

This is a co-requisite laboratory course for CIT 108.  
Co-requisite: CIT 108

### **CITL 205 – Surveying Laboratory**

This is a co-requisite laboratory course for CIT 205.  
Co-requisite: CIT 205

### **CITL 205 – Surveying Laboratory**

This is a co-requisite laboratory course for CIT 205.  
Co-requisite: CIT 205

## **CLPR • Clinical – Radiography, Muhlenberg**

### **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. – non-credited.

### **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, Muhlenberg**

### **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 is an introduction to the technologies that shape the communications field, with special emphasis on the creative 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 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  
4 lecture 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  
3 lecture 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  
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 290 – Co-op Education Experience in Communications**

This course is a one-semester internship of approximately 135 hours in a business position with a local communications-related business or industry with or without compensation in order to acquire knowledge of industry and workplace relevant skills. This course is only open to matriculated students in the Communications, Media, Journalism and Public Relations A.A degree programs. Students must arrange placement with the Division Dean prior to enrolling in the course.

135 contact hours  
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 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 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  
Co-requisite: CRJL 103  
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  
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 policy history within the larger social context. Root causes of crime and disorder are explored in order to look at contemporary police responses. Topics include 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 criminal 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 Operations**

This course examines special police operations role and responsibilities. Students will explore issues related to K-9 officers, SWAT operators, hostage negotiations, homicide investigators, drug interdiction officers and other specialized police personnel. These law enforcement positions involve unique training, a specialized skill set, and a collection of challenges unique to that job is emphasized.

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, diversionary programs.

Prerequisite: ENG 096  
3 lecture hours per week  
3 credit hours

**CRJ 223 – Homeland Security**

This course examines the development, role and responsibilities of the U.S. Department of Homeland Security. Students will explore the techniques and practices that assist private, commercial and public establishments, particularly industrial plants, department stores, hospitals, schools, sports facilities and other public facilities where people congregate. Special problems such as espionage, terrorism, riots, natural disasters and pilferage will also be covered.

Prerequisite: ENG 096  
3 lecture hours per week  
3 credit hours

**CRJ 314 – Introduction to Intelligence**

This course provides a comprehensive overview of Intelligence and security issues, defining critical terms and reviewing the history and trends of Intelligence as practiced in the United States, and explores the way the Intelligence community looks and operates today. Topics include the definition of Intelligence, the pillars of the American Intelligence system, collection, analysis, counter-intelligence, and other special operations.

Prerequisite: CRJ 101  
3 lecture hours per week  
3 credit hours

THIS ADVANCED-LEVEL COURSE IS PART OF THE 3+1 PARTNERSHIP WITH BERKELEY COLLEGE. THE COURSE IS ONLY AVAILABLE TO STUDENTS WHO COMPLETED AN ASSOCIATE DEGREE IN CRIMINAL JUSTICE AND ARE ACCEPTED AT BERKELEY COLLEGE.

**CRJ 315 – Terrorism and Counter-Terrorism**

This course examines the history, evolution and causes of terrorism as a violent criminal behavior and focuses on counter-terrorism strategies. The course has an emphasis on the social and criminal justice responses needed to address violent crimes of this kind. Students will learn, discuss and explore the various responses that democratic governments take in combatting terrorism.

Prerequisite: CRJ 101  
3 lecture hours per week  
3 credit hours

THIS ADVANCED-LEVEL COURSE IS PART OF THE 3+1 PARTNERSHIP WITH BERKELEY COLLEGE. THE COURSE IS ONLY AVAILABLE TO STUDENTS WHO COMPLETED AN ASSOCIATE DEGREE IN CRIMINAL JUSTICE AND ARE ACCEPTED AT BERKELEY COLLEGE.

**CRJL • Criminal Justice Lab****CRJL 103 – Introduction to Forensic Procedure Laboratory**

This is a co-requisite laboratory course for CRJ 103.

Co-requisite: CRJ 103

**CST • Computer Science and Technology****▲ CST 100 – Introduction to Computer Applications**

This course introduces students to basic computer concepts. The course also focuses on a current version of Microsoft Office Professional. Students experience hands-on instruction in word processing, spreadsheets, databases, and professional presentations. This course prepares students to succeed in both college and the business world by enabling them to write reports, analyze and chart data, and prepare presentations.

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 the many facets of computer information systems. The course provides an understanding of system concepts, information technology, and application software. It also introduces students to how information is used in organizations and how information technology enables improvement in quality and timeliness of information. It gives students the characteristics of professionals and of possible career paths.

Topics include ethical and societal issues, organizing data and information, telecommunications and networks, e-commerce, and management information systems. 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 135 – Linux Fundamentals**

This course provides an introduction to the Linux operating system and its applicability to digital forensics. Topics include Linux scripting, installation, configuration, boot loaders, mounting drives and images, process control, user and group administration, file system administration and management, as well as setting up a secure Linux login environment.

Prerequisite: ENG 097, MAT 017 or MAT 019 /MAT 021 or MAT 022

3 lecture hours per week  
3 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 programing techniques are emphasized throughout the course.

Prerequisites: ENG 096, MAT 019/MAT 021 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, CST161

4 lecture hours per week  
4 credit hours

**CST 170 – Digital Forensics Essentials**

This hands-on course introduces the fundamental principles of forensic science generally, and the technical and legal aspects of digital forensics specifically, including forensic procedures, imaging, hashing, file recovery, file system basics, mismatched file types, reporting, and the laws governing digital evidence. Students will use both open-source and court-approved (AccessData) forensic software tools to conduct digital forensic examinations..

Prerequisite: ENG 097 , MAT 017 or MAT 019 /MAT 021 or MAT 022

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.

Prerequisite: CST 101 or CST 120 or CST 161

3 lecture hours per week  
3 credit hours

**CST 176 – Advanced Digital Forensics**

This hands-on course builds upon foundational knowledge gained in Digital Forensics Essentials and Linux Fundamentals courses. Students will perform detailed forensic analyses and produce forensic reports of findings on a series of compromised and/or seized system images, using tools for distributed data collection, imaging and forensics. Students will examine host-level data along with some network-level data and mobile device data, as well as systematically determine what happened and how. Students will use both opensource and court-approved (AccessData) forensic software tools to conduct digital forensic examinations.

Prerequisites: CST 135, CST 170

Co-requisite: None  
4 lecture hours per week  
4 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 – Programming for Mobile Devices**

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 215 – Cyber Law and Ethics**

This course presents the student with issues of law and ethics in cyberspace. Topics covered will include government regulation of online behavior, constitutional considerations concerning free speech and content controls, intellectual property, hacking, and the ethics of internet behavior. This course will explore the laws governing security breaches and responses to such breaches, and current United States case law and statutes governing the Internet.

Prerequisite: ENG 101

Co-requisite: None

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 161

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 161

3 lecture hours per week  
3 credit hours

**CST 230 – Windows Administration and Security**

This hands-on course provides a comprehensive understanding of the popular Windows operating system and associated security concepts. Topics include Windows system administration tasks, TCP/IP networking suite, access control methods, baseline security configurations, virtualized environments, detection and removal of malware, and native digital forensics tools.

Prerequisite: CST 135

3 lecture hours per week  
3 credit hours

**CST 240 – Network Forensics and Incident Response**

This course covers the requisite knowledge and hands-on practice with network forensics in response to data breaches, incidents, and intrusions. Topics include the Internet of Things (IoT), network traffic tools, data packet flow, and event log analyses. Students will learn to identify, categorize, and respond to network and host incidents in a forensically secure manner.

Prerequisite: CST 176

Co-requisite: None  
4 lecture hours per week  
4 credit hours

**CST 245 – Cloud and Personal Device Forensics**

This course presents the various and emerging forensic tools used to recover evidence from Cloud storage and from personal devices, such as mobile phones, smartwatches, and voice-enabled devices. Students will learn how to analyze and interpret recovered data, as well as discover which tools are best suited for recovering valuable electronic evidence from smart devices. The forensics challenges and issues of Cloud computing and the Internet of Things (IoT) will also be studied.

Prerequisite: CST 176

Co-requisite: None

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 285 – Cyber Forensics Capstone**

This capstone course is required of all cyber forensics degree and certificate candidates. As a culminating course, it allows students to demonstrate their interdisciplinary knowledge and technical skills learned in previous program courses. Through a service-learning field experience, students develop the ability to meet and excel in career and social demands of the 21st century by applying program content in a practical setting and interacting with professionals in a variety of fields. This course combines on-campus meetings, service placement with community partners, and independent projects. This capstone experience must be taken in a student's last semester immediately prior to graduation.

Prerequisite: Completion of all third semester courses.

1 lecture hour per week/90 contact hours  
3 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

## **DMSM • Diagnostic Medical Sonography, Muhlenberg**

### **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.  
Prerequisite: BIO 105, PHY 125 with lab or PHY 101 with lab, MAT 119, ENG 101  
2 lecture hours per week  
2 credit hours

### **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 & 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  
MAT 022  
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, MAT 022

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.

Prerequisite: 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 multi-lateral 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 fifty 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.

Prerequisite: EDU 205 or permission of Division Dean's office

3 lecture hours per week  
3 credit hours

**EET • Engineering Technology****EET 101 – Principles of DC Circuits**

This course provides an 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: EETL 101, MAT 143 or MAT 119

3 lecture and 3 laboratory hours per week  
4 credit hours

**EET 102 – Principles of AC Circuits**

This course is a 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

Co-requisite: EETL 102

2 lecture and 3 laboratory hours per week  
3 credit hours

**EET 111 – Digital Computer Fundamentals**

This course is 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: EETL 111, MAT 143 or MAT 119

3 lecture and 3 laboratory hours per week  
4 credit hours

**EET 112 – (UAS 112) Sensors for Drones**

This course will focus on the key different types of sensors: light, sound, heat, chemical, speed/distance, magnetic-field and image. Students will identify the minimum required number and types of sensors needed for drones to fly successfully, move onto learn about additional sensors that are used for various applications with drones that facilitate modularized airborne sensor deployment and real-time data feedback.

3 lecture hours per week  
3 credit hours

**EET 204 – Electromechanical Devices and Systems/Robotics**

This course provides an 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: EETL 204, EET 211

3 lecture and 3 laboratory hours per week  
4 credit hours



**EET 209 – (UAS 209) Drone Control Systems**

This course focuses on the analysis and fundamentals of Control Systems used for Drone Design and Applications. Students will utilize the PX4 System Architecture and other core concepts to learn how to configure system inputs for optimal performance and artificial intelligence applications.

3 lecture hours per week  
3 credit hours

**EET 211 – Computer Systems/Microprocessors**

This course is a continuation of EET 111. It is the 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

Co-requisite: EETL 211

3 lecture and 3 laboratory hours per week  
4 credit hours

**EET 212 – (UAS 212) IoT Applications for Drones**

This course will focus on drones and how they are utilized in Internet of Things (IoT) environments. The students will learn about machine to machine ecosystems, authentication, security mobile networks and RF communications.

3 lecture hours per week  
3 credit hours

**EET 213 – Semiconductor Devices and Circuits**

This is a 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

Co-requisite: EETL 213

4 lecture and 3 laboratory hours per week  
5 credit hours

**EET 265 – Fiber Optic Communication Systems**

This course is a study of the 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

Co-requisite: EETL 270

3 lecture and 3 laboratory hours per week  
4 credit hours

**EET 285 – (UAS 285) Drone Design Capstone**

In this course the student will design and create a drone from concept to completion in a team environment. Students will be expected to document their work through all stages of development and to apply project management techniques with their group. This capstone can be used for students to demonstrate their Drone Design and Applications acumen to potential employers.

Prerequisites: EET 209

3 lecture hours per week  
3 credit hours

**EET 290 – Co-op Education Experience in Electronics/Electromechanical Technology**

This is 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  
200 contact hours  
3 credit hours

**UAS 105 Remote Pilot Operations**

This course offers in-depth preparation for students to take the FAA Remote Pilot Aeronautical Knowledge test. Topics will include regulations, airspace and requirements, weather, loading and performance, and small unmanned aircraft operations. Students acquire actual experience of operating in the National Airspace System (NAS) through a series of unmanned flights at the Droneport. FAA Remote Pilot Certificate must be completed during this course at student expense.

2 lecture hours and 2 laboratory hours per week  
3 credit hours

THIS COURSE REQUIRES TRAVEL TO WARREN COUNTY COMMUNITY COLLEGE AND IS ONLY AVAILABLE TO STUDENTS ENROLLED IN DRONE APPLICATIONS AND TECHNOLOGY, A.A.S. OR REMOTE PILOT AND DRONE APPLICATION, CT.

**EETL • Engineering Technology Lab****EETL 101 – Principles of DC Circuits Laboratory**

This is a co-requisite laboratory course for EET 101.

Co-requisite: EET 101

**EETL 102 – Principles of AC Circuits Laboratory**

This is a co-requisite laboratory course for EET 102.

Co-requisite: EET 102

**EETL 111 – Digital Computer Fundamentals Laboratory**

This is a co-requisite laboratory course for EET 111.

Co-requisite: EET 111

**EETL 204 – Electromechanical Devices and Systems/Robotics Laboratory**

This is a co-requisite laboratory course for EET 204.

Co-requisite: EET 204

**EETL 211 – Computer Systems/Microprocessors Laboratory**

This is a co-requisite laboratory course for EET 211.

Co-requisite: EET 211

**EETL 213 – Semiconductor Devices and Circuits Laboratory**

This is a co-requisite laboratory course for EET 213.

Co-requisite: EET 213

## **EETL 270 – Photovoltaic (PV) Systems Laboratory**

This is a co-requisite laboratory course for EET 270.  
Co-requisite: EET 270

## **EGG • Engineering**

### **EGG 101 - Introduction to Engineering: Mathematics and Applications**

This course is an application-based introduction to engineering and advanced mathematics topics through experiential, hands-on engineering labs, providing the student with a preliminary insight into the field of engineering and its aspects. Activities include algebraic manipulation of equations, trigonometry, vectors, sinusoids, matrices, differentiation and integration. Engineering applications are reinforced through extensive problem-solving by using math in context. MATLAB, an engineering analysis software, will be introduced and supported in lab applications. Laboratory emphasizes the use and understanding of basic instrumentation and measurement techniques and applications used.  
Co-requisite: MAT 144, MAT 155, or MAT 171  
3 lecture and 3 laboratory hours per week  
4 credit hours

### **EGG 105 – Introduction to Fundamentals of Engineering**

This course is an 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 & 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 & 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)**

This course is 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)**

This course is the 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**

This course provides the theory and practice of measurements and their application. 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**

This course is an introduction to the fundamental concepts of electric circuits. The course covers mesh and nodal analysis, network theorems and applications, steady state analysis, and phasor diagrams. The introduction includes time-varying analysis R-L, R-C, and R-L-C circuits.  
Prerequisite: PHY 201  
Co-requisite: EGGL 207, 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  
Co-requisite: EGGL 213  
2 lecture hours and 2 laboratory hours per week  
3 credit hours

### **EGG 251 – Digital Design**

This course is 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

## **EGGL • Engineering Lab**

### **EGGL 101 - Introduction to Engineering: Mathematics and Applications Laboratory**

This is a co-requisite laboratory course for EGG 101. Co-requisite: EGG 101

### **EGGL 207 – Principles of Electrical Engineering Laboratory**

This is a co-requisite laboratory course for EGG 207.

Co-requisite: EGG 207

### **EGGL 213 – 3-D AutoCAD Laboratory**

This is a co-requisite laboratory course for EGG 213.

Co-requisite: EGG 213.

## **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 – Interpreter Role and Ethics, or Division Dean's office

3 lecture hours in a 5-week session

1 credit hour

### **EIP 210 – Deaf-Blind Interpreting and Interpreting Strategies**

(On campus/Learning Management System for posting assignments) Students discuss the various roles and responsibilities of interpreters, including ethical and cross-cultural considerations. Interpreters work with persons who are Deaf-Blind. Interpreting strategies focus on linguistic modifications for tactile and restricted-field interpreting, as well as incorporating environmental aspects into the interpreting process. Students will apply strategies related to specific linguistic modifications such as condensing and editing, utilizing pre- and post-assignment information, and transferring non-manual grammatical signals into a tactile mode. The course also discusses resources, agencies, and effective provision of interpreter/support service provider services for academic or community events where Deaf-Blind persons participate.

Prerequisites: None

3 lecture hours per week

3 credit hours

## **EMT • Emergency Medical Technician**

### **EMT 100 – Cardiopulmonary Resuscitation**

This course 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 course 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 course. A course completion card will be issued by the appropriate certifying agency.

15 lecture hours

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 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, ASHI, or National Safety Council  
4 lecture hours per week 3 clinical 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 ENG 101 course. Prerequisites: Satisfactory Placement Test scores on the Reading, Essay and Sentence Sense tests. Placement into ENG 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, 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 ENG 101 course. Prerequisites: Satisfactory Placement Test scores on the Reading, Essay, and Sentence Sense tests. Placement into ENG 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. Prerequisite: Successful completion of ENG 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 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. Prerequisites: ENG 101 or ENG 112  
3 lecture hours per week  
3 credit hours

**▲ ENG 112 – English Composition for Speakers of Other Languages**

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 non-native speakers of English students' skill in writing expository prose. ENG 112 serves as a substitute for ENG 101 for non-native speakers of English. Prerequisites: ESL 067 and ESL 068 or ESL 097 and ESL 098 or ESL Placement Test  
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

NOTE: THIS COURSE FULFILLS A GENERAL EDUCATION REQUIREMENT FOR A.A.S. DEGREE CANDIDATES ONLY

**▲ 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 ENG 101 and ENG 102 or ENG 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.

Prerequisite: ENG 102  
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  
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 1920s 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 231 – Latinx Literature Studies

This literature course explores Afro-Latinx, Indigenous, and Latinx populations of the Americas and their experiences in the U.S. through fiction, poetry, and other texts. Latinx is the gender-neutral alternative to Latino and Latina and is inclusive of people who identify as trans, queer, agender, non-binary, gender non-conforming or gender fluid. The course allows students to explore the multiplicity of cultures and societies of Latinx-America in ways that acknowledge the permeability, or absence, of borders. The course will improve knowledge of Latinx global politics, cultures, and nations as theorized, imagined, and practiced through Latinx Literature and Critical Theory.

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

### ▲ 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

### ENG 315 – Advanced Writing for Social Sciences

This course explores a variety of professional and academic writing modes, pursuant to the social sciences. Students read, write, and conduct research in their respective fields. This course requires students to compose extended and revised writing that culminates in a final project.

Prerequisites: ENG 102 or ENG 122  
3 lecture hours per week  
3 credit hours

THIS ADVANCED-LEVEL COURSE IS PART OF THE 3+1 PARTNERSHIP WITH BERKELEY COLLEGE. THE COURSE IS ONLY AVAILABLE TO STUDENTS WHO COMPLETED AN ASSOCIATE DEGREE IN BUSINESS MANAGEMENT OR CRIMINAL JUSTICE AND ARE ACCEPTED AT BERKELEY COLLEGE.

## 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.

## ESL • English as a Second Language

# 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 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 112, a two-semester sequence of college composition for ESL students (equivalent to ENG 101), along with other courses.

### 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: ESL Placement Test  
Co-requisite: ESL 038  
6 lecture hours per week  
6 institutional credits

### ESL 038 – Intermediate 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  
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 (ESP) 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



# Learn English

## With English as a Second Language Programs from Union County College



Learn English through a combination of listening, speaking, reading and writing classes. Classes are available for students at all levels. The ESL program helps students to improve their English to meet academic, and career goals. After placement testing, students are advised on the appropriate ESL level of instruction depending on their abilities. The placement test is available on all three campuses throughout the year.

### To get started:

1. Complete a College application in person at the College Student Services Centers or online at [www.ucc.edu](http://www.ucc.edu).
2. After you apply, you will receive a College ID number.
3. Take the ESL Placement test. For testing hours go to [www.ucc.edu/testing](http://www.ucc.edu/testing). Please bring your College ID number.
4. After you have tested, register for courses at the Student Services Center

**For more information on testing, call  
(908) 965-6031 or (908) 709-7518, or visit  
[www.ucc.edu/iie](http://www.ucc.edu/iie)**

Union County College does not discriminate and prohibits discrimination, as required by state and/or federal law, in all programs and activities, including employment and access to its career and technical programs. Accredited by The Middle States Commission on Higher Education.

**THE ENGLISH AS A SECOND LANGUAGE PLACEMENT TEST IS AVAILABLE ON ALL THREE CAMPUSES**

**ESL 048 – Intermediate II  
Reading/Listening/Speaking**

This course is part of a multi-level English for Academic Purposes (ESP) 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, including essays that summarize, respond to, and incorporate ideas from academic sources. The course presents and develops the grammar and editing skills required to express ideas clearly.

Prerequisites: ESL 047 or ESL 087 or ESL Placement Test

6 lecture hours per 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 or ESL Placement Test

5 lecture hours per 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 or 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 head-phone 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 headphone 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 and 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 and 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.

Prerequisites: 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

6 lecture hours per 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

6 lecture hours per 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

1 lecture hour 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 technology-based studio course will introduce students to the conscious and thoughtfully planned arrangement of graphic elements including line, shape, color, texture, and type. Students will demonstrate their artistic skills using photography and computer applications.

Additionally, this course introduces students to the basic principles of design including unity, balance, hierarchy, rhythm, and illusion. The basics of composition in a digital environment will be addressed.

Prerequisites: None

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 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 124 – Theater Appreciation**

This course provides an introduction to the basic social, artistic, and technical elements of theater. Topics include theater as storytelling; dramatic genres, styles, and structures; the various physical theater spaces; and the contributions of the playwright, designers, director, actors, and audience to the theatrical process.

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 technology-based design studio course which provides a basic understanding of the techniques, concepts, and processes involved in the field of Graphic Design. Topics include graphic design history and its impact on the commercial design profession, typography, image editing, color theory, photography, and aesthetics. Students will gain skills in designing various applications including print and multimedia. Careers and opportunities in graphic design will also be discussed.

Prerequisite: FIA 104

3 lecture hours per week  
3 credit hours

**▲ FIA 132 – Introduction to Dramatic Literature**

This course offers a study of the classics of European and Asian drama as both "text" and "event." The course includes readings of selected masterworks together with scene study, criticism, and historical discussion.

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 technology-based studio course is an advanced course in graphic design. Students will learn advanced design skills in computer design production for print and multimedia. A capstone project will be the focus of the course in addition to learning more about the importance of research and client interaction. Students will work on their capstone project with a client or the instructor. The capstone project will include the planning of a complex commercial concept that is digitally created and produced. Students will also gain knowledge of the application process for current careers and opportunities in graphic design. Advanced printing techniques and multimedia applications will also be addressed.  
Prerequisite: FIA 130  
3 lecture hours per week  
3 credit hours

**▲ FIA 232 – Modern and Contemporary Dramatic Literature**

This course offers an analysis of modern and contemporary dramatic literature from the Birth of Realism to the 21st Century. The course includes readings of selected masterworks together with dramatic theory, criticism, historical discussion, and an emphasis on diversity.  
Prerequisite: ENG 101  
3 lecture hours per week  
3 credit hours

**FRE • French****▲ FRE 101 – Beginning French I**

This course includes development of the fundamental 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 may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.  
Prerequisite: ENG 096, 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 may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.  
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

**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 firefighter 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.

Prerequisites: ENG 096, if required  
3 lecture hours per week  
3 credit hours

**FST 113 – Fire Department Organization and Management**

This 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.

Prerequisite: 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.

Prerequisites: 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 fireground or incident commander is stressed. Major features include central control over and coordination of human and material resources with particular recognition given to the safety of fire personnel and disaster victims.

Prerequisite: FST 106  
3 lecture hours per week  
3 credit hours

**FST 218 – Fireground Strategies and Concepts**

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 and Development****GDP 101 – Fundamentals of Game Design**

This course covers the many aspects involved in the process of designing a game. Topics included in this course are the role of the game designer, elements of a game, types of players, game mechanics, game balance, story in games, game design documents, game pitches, and prototypes.

Prerequisite: ENG 097  
3 lecture hours per week  
3 credit hours

**GDP 112 - Introduction to Game Programming**

This course builds on the fundamental principles of game design and teaches students the basics of game programming using a modern professional game engine. Students will learn the concepts and features of object-oriented programming using a computer language commonly used in the game industry. The course focuses on various techniques used in developing prototypes of 2D and 3D games.

Prerequisites: GDP 101, CST 115 or CST 161  
3 lecture hours per week  
3 credit hours

**GDP 115 – The Business of Game Development**

This course covers many aspects related to the business of game development. Students learn about legal issues, publishing, marketing, entrepreneurship, and current topics in the game industry. Some concepts covered include intellectual property rights, branding, public relations, contract negotiations, choosing a business entity, and writing business and marketing plans. This course will help students gain a broader understanding of the game development industry.

Prerequisite: GDP 101  
3 lecture hours per week  
3 credit hours

**GDP 201 – Digital Animation for Games**

This course provides students with animation techniques using a modern professional game engine and computer graphics software. Students will cover the principles of 2D and 3D animation and its use in game design. Topics include 2D sprite animation, 3D skeletal animation, particle systems, physics in animation, and creating programmatic animations.

Prerequisite: GDP 112  
3 lecture hours per week  
3 credit hours

**GDP 212 – Artificial Intelligence for Games**

This course further explores game programming using a modern professional game engine by covering artificial intelligence techniques and algorithms used in games. Topics include finite state machines, sensory systems, path following, steering, obstacle avoidance, flocking, behavior trees, navigation meshes, and machine learning.

Prerequisite: GDP 112  
3 lecture hours per week  
3 credit hours

**GDP 215 – 3D Game Graphics Programming**

This course provides students with the fundamentals of 3D graphics programming for games and interactive media using a modern professional game engine. Students will explore various topics of shader programming, post-processing effects, lighting models, physically based rendering, and grab passes.

Prerequisite: GDP 112  
Co-requisite: GDP 280  
3 lecture hours per week  
3 credit hours

## **GDP 280 – Game Design and Development Capstone**

In this course students will develop a game from conception to completion in a team environment. Students will be expected to document their work through all stages of development and to apply project management techniques with their group. This capstone project can then be used by students looking to show their portfolio to potential employers or for students who plan to publish their game.

Prerequisites: GDP 201, GDP 212

Co-requisite: GDP 215

3 lecture hours per week

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 GER 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**

This course is a 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**

This course is a 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 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.

Prerequisites: 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  
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 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 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 permission of Division Dean 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.

Prerequisite: 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 Counterculture, and the complexities of current national life.

Prerequisite: ENG 097

3 lecture hours per week

3 credit hours

**▲ HIS 225 – Women in American History**

This course is a survey of the history of women in the United States from the 17th century to the present. Students will approach women's history as both an integral part of the nation's past as well as a distinct subject of historical investigation. Topics include women's changing roles in family and economic life, political participation and the fight for suffrage, and the influence of race, ethnicity, and socioeconomic status on gender identity.

Prerequisite: ENG 097

3 lecture hours per week

3 credit hours

**▲ HIS 230 – Latin American History**

This course is a broad survey of the history of Latin America from pre-Colombian civilizations to the present. Political, economic, ideological, social and cultural factors will be considered, as well as the interaction between Latin America and the global society.

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

**HIT • Health Science Technology****HIT 101 – Introduction to Healthcare Information Technology**

This course provides an overview of healthcare delivery and the structure of healthcare organizations in the United States. It includes a discussion of the development and analysis of health records and the role of the health information technician. The relationship between a health record and reimbursement is also discussed. This course utilizes specialized software for hands-on practice with an electronic health record.

Prerequisite: Acceptance into the Health Information Technology Program.

3 lecture hours per week

3 credit hours

**HIT 110 – Healthcare Information in Alternative Systems**

This course focuses on the function and use of the health record in various non-acute care facilities, including long term care, psychiatric, rehabilitation, and cancer settings. In addition, regulatory accreditation and certification standards for documentation and management of patient health records in non-acute environments will be discussed.

Prerequisite: HIT 101

Co-requisite: HIT 111

3 lecture hours per week

3 credit hours

**HIT 111 – Legal Issues In Healthcare**

This course focuses on the legal and ethical aspects of the health record and health information technology. The implications of healthcare legislation for the health information practitioner, various healthcare providers, and government agencies are emphasized. The course includes an in-depth study of the confidentiality of health information as well as the standards, regulations, and laws that govern the release of health information. It also covers the role of the medical record department in monitoring and implementation of legal changes, liability issues, and risk management.

Prerequisite: HIT 101

Co-requisite: HIT 110

3 lecture hours per week

3 credit hours

**HIT 201 – Health Information Technologies**

This course introduces computer applications in health information systems, including data entry, display, storage, and retrieval. Students acquire an understanding of the application of health information systems in the healthcare environment. Security and confidentiality of information stored in the electronic health record will be discussed, as well as the logistics of monitoring and utilizing the information. This course utilizes specialized educational software for hands-on practice with an electronic health record.

Prerequisites: HIT 101, CST 100

Co-requisite: HIT 202

3 lecture hours per week

3 credit hours

**HIT 202 – Coding & Classification I**

This course focuses on disease coding using the International Classification of Diseases 10th Edition, Clinical Modification (ICD-10-CM) with an emphasis on the use and applications of coding principles and classification systems in the healthcare environment. The review of medical records to identify diagnoses with treatment, and/or services performed, and the correct sequencing for optimal reimbursement will also be discussed.

Prerequisites: BIO 105, BIO 106, ALH 161

Co-requisites: ALH 201, HIT 201

3 lecture hours per week

3 credit hours



**HIT 203 – Coding & Classification II**

This course focuses on the principles of coding and classification systems with an emphasis on the Healthcare Financing Administration's Common Procedural Coding System (HCPCS) and Current Procedural Terminology (CPT) coding. The review of medical records to identify diagnoses with treatment and/or services performed, and the correct sequencing for optimal reimbursement are also included. Prerequisites: BIO 105, BIO 106, ALH 161, ALH 201, HIT 202  
Co-requisite: HIT 205  
4 lecture hours per week  
4 credit hours

**HIT 204 – Healthcare Information Standards**

This course introduces the student to health data structure, content, and standards. The collection and maintenance of health data; policies and procedures; verification and currency of data; integrity of data and data sources for patient care, management, billing, and registries as well as data reporting to meet organizational needs will be discussed. Prerequisite: HIT 111  
3 lecture hours per week  
3 credit hours

**HIT 205 – Reimbursement**

This course is an introduction to patient billing and reimbursement systems in ambulatory settings. Topics discussed include billing and claims management issues as well as terminology and principles commonly used in the Managed Care environment. Students will review billing practices and apply the compliance guidelines introduced in the course to prepare health insurance claim forms for various types of insurance plans. Prerequisites: HIT 111, HIT 202  
Co-requisite: HIT 203  
3 lecture hours per week  
3 credit hours

**HIT 206 – Professional Practice**

Under the supervision of a qualified supervisor, students gain professional practice experience in coding and reimbursement. Students will utilize AHIMA VLAB specialized software package to apply theory to practice procedures and complete assignments on functions performed in a health information management department in various healthcare settings, including but not limited to preparation, storage, retrieval, and sharing of health data; analysis and reporting requirements for health record; patient admissions process; coding of health data, CPT coding and assignment; and billing and reimbursement. Prerequisite: Permission of Division Dean's Office  
2 lecture hours per week  
2 credit hours

**HIT 207 – Health Information Management**

This course uses case studies to introduce students to the management of the patient health record from admission to completion with a focus on structure, content and regulations affecting the health record in various healthcare settings. The functions and responsibilities of the health information management unit will also be discussed. A special software package will be used to apply the theory of health information management to the development, implementation, and management of the electronic health record. Prerequisites: HIT 110, HIT 201  
Co-requisite: HIT 206  
2 lecture hours per week  
2 credit hours

**HRS • Honors Studies****▲ HRS 103 – Honors Seminar in Cross-Cultural Study**

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 • Hotel, Restaurant & Tourism Management****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 course is a 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. 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  
135 contact hours  
3 credit hours

**HUD • American Sign Language & Deaf Studies****HUD 103 – Text and Discourse Analysis for Interpreting**

This course will focus on text and discourse analysis of American Sign Language and English in different registers/styles. Processes of text and discourse analysis, semantics and pragmatics, sociolinguistics, structures of ASL and English discourse will be discussed. The course will take an in-depth look at discourse through selected written texts, videotapes and live demonstrations. Lectures and videotapes will be used for skill development in text/discourse analysis and students will practice and apply discourse structures and semantics/pragmatics in ASL and English.  
Prerequisites: HUD 105, ASL 202 and ASL 208 or permission of 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 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 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 Division Dean 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

Students enrolled in this course will gain experience interpreting in a variety of settings with Deaf consumers who have diverse linguistic preferences through 90 hours of observation of the interpreting process and hands on experience with supervision. Attendance at seminars and lab activities are required in conjunction with field experience activities.

Prerequisites: HUD 106, HUD 108 and HUD 215, demonstration of proficiency via examination and permission of Division Dean's office

1 lecture hour per week/90 contact hours  
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 135-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 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  
135 contact hours  
3 credit hours

## IDS • Interdisciplinary Studies

### IDS 128 – Business Communications

This course offers the Walt Disney College Program participant the opportunity to learn the concepts inherent in business communication and apply them in the workplace. The skills taught are applicable to a wide variety of business environments.

Participants will learn about the elements of communication, explore methods used to process information, identify basic listening skills, and recognize inclusive communication approaches. Other topics include meetings and group dynamics, presentations, and public communications. This course does not fulfill curriculum requirements for ENG 128 or ENG 129.

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.

Prerequisite: INT 101  
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 fundamental skills of understanding, speaking, reading, and writing. Listening practice is available. Media are incorporated into the classroom experience. Native speakers may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.

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 speakers may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.

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

## 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.  
4 lecture hours per week  
4 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.  
3 lecture 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 & 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, LGL 111, and approval of the Paralegal Coordinator  
150 internship hours  
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 includes 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  
5 lecture hours per week  
5 institutional credit hours



**What are Institutional Credits?**

These are credits for developmental courses that provide the skills and confidence to succeed in college-level courses. Developmental courses are numbered 099 and below; they do not meet graduation requirements and will not transfer to four-year colleges.

**MAT 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.

Prerequisites: 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 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, polynomial functions, rational functions, radical functions, rational exponents and applications.

Prerequisites: ENG 097 or a satisfactory score on the College Basic Skills Test for Algebra, or 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 & Game Theory, and Voting & Social Choice.

Prerequisites: ENG 097 or a satisfactory score on the College Basic Skills Test for Algebra or grade of "C" 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 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.

Prerequisite: 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 a satisfactory score 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 248 – Probability and Statistics**

This course introduces the essentials of probability theory and elementary statistics. Topics include an introduction to descriptive and inferential statistics; sample space and events, probability axioms, and counting techniques; conditional probability and independence, and Bayes' Theorem; discrete random variables, distribution functions and moments, and Binomial and Poisson Distributions; continuous random variables, densities and moments, normal, gamma, and exponential distributions unions; the Central Limit Theorem; confidence intervals; hypothesis testing and p-values; regression and correlation.  
Prerequisite: MAT 171  
3 lecture hours  
3 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**

This course is 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: MET 109 or approval of Division  
Co-requisite: METL 104  
3 lecture hours and 1 laboratory hour per week  
3 credit hours

**MET 106 – Engineering Materials and Processes**

This course is 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.

Co-requisite: METL 106

2 lecture hours and 3 laboratory hours per week

3 credit hours

**MET 109 – Computer-Aided Drafting**

This course is 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.

Co-requisite: METL 109

2 lecture hours and 3 laboratory hours per week

3 credit hours

**MET 112 – Mechanics-Statics**

This course is 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

Co-requisite: METL 219

2 lecture hours and 3 laboratory hours per week

3 credit hours

**METL • Mechanical Engineering Technology Lab****METL 106 – Engineering Materials and Processes Laboratory**

This is a co-requisite laboratory course for MET 106.

Co-requisite: MET 106

**METL 109 – Computer-Aided Drafting Laboratory**

This is a co-requisite laboratory course for MET 109.

Co-requisite: MET 109

**METL 219 – CAD/CAM Laboratory**

This is a co-requisite laboratory course for MET 219.

Co-requisite: MET 219

**METL 104 – Engineering Drawings Laboratory**

This is a co-requisite laboratory course for MET 104.

Co-requisite: MET 104.

**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

Co-requisite: MTRL 101

3 lecture and 3 laboratory hours per week

4 credit hours

**MTRL • Meteorology Lab****MTRL 101 – Introduction to Meteorology Laboratory**

This is a co-requisite laboratory course for MTR 101.

Co-requisite: MTR 101.

**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, ENG 101. 15 week course

4 hours theory per week

4 credit hours

**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: NREL 131, BIO 106, 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 NURE 130/NURE 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, PSY 204, NREL 132. 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, BIO 106, BIO 108; CHE 114; ENG 101, ENG 102; PSY 101, PSY 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

### 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

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techniques, 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 GPA of 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, NURE 131, and NURE 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, SOC 101, NREL 231. 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, NURE 131, NURE 132, & NURE 231. It explores the nurses's role in caring for adult clients experiencing complex medical-surgical health alterations that are potentially life threatening and adult clients experiencing acute and chronic psychiatric mental health alterations. Learning experiences are provided in the classroom, Learning/Simulation Center and in multicultural adult medical/surgical and psychiatric/mental health facilities.

15 week course.  
Prerequisites: NURE 231, NREL 231, All liberal arts and science courses listed in the curriculum, GPA 2.5  
Prerequisites: NREL 232, 6 credits General Education Humanities Electives  
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/NURE 212, NREL 212, and GPA 2.5. 15 week course  
Co-requisite: NREL 250  
3 hours theory, 9 clinical hours per week  
6 credit 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. 7 week course  
Co-requisite: NREL 260  
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, NURE 270, NREL 260, NREL 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 of 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, NURE 212, NURE 250, NURE 260, NURE 270, NURE 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.

**NREL • Nursing, Trinitas – Lab****NREL 131 – Nursing I Laboratory**

This is a co-requisite laboratory course for NURE 131.

Co-requisite: NURE 131

**NREL 132 – Nursing II Laboratory**

This is a co-requisite laboratory course for NURE 132.

Co-requisite: NURE 132

**NREL 212 – Health and Physical Assessment Lab**

This is a co-requisite laboratory course for NURE 211 and NURE 212.

Co-requisite: NURE 211 and NURE 212.

**NREL 231 – Nursing III Laboratory**

This is a co-requisite laboratory course for NURE 231.

Co-requisite: NURE 231

**NREL 232 – Nursing IV Laboratory**

This is a co-requisite laboratory course for NURE 232.

Co-requisite: NURE 232

**NREL 250 – Nursing Care of the Client with a Medical Surgical Health Deviation Laboratory**

This is a co-requisite laboratory course for NURE 250.

Co-requisite: NURE 250

**NREL 260 – Nursing Care of Children and their Families Lab**

This is a co-requisite laboratory course for NURE 260.

Co-requisite: NURE 260.

**NREL 270 – Nursing Care of Women and the Childbearing Family Lab**

This is a co-requisite laboratory course for NURE 270.

Co-requisite: NURE 270.

**NREL 280 – Nursing Care of the Client with Mental Illness**

This is a co-requisite laboratory course for NURE 280.

Co-requisite: NURE 280.

**NREL 290 – Nursing Care of the Client with Complex Multi-System Medical/Surgical Health Deviation Lab**

This is a co-requisite laboratory course for NURE 290.

Co-requisite: NURE 290.

**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.

Co-requisites: 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 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  
Co-requisite: NRML 120  
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 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 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  
Co-requisites: 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 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

## **NRML • Nursing, Muhlenberg – Lab**

### **NRML 120 – LPN Transition Course Laboratory**

This is a co-requisite laboratory course for NURM 120.

Co-requisite: NURM 120

### **NRML 121 – Nursing I Laboratory**

This is a co-requisite laboratory course for NURM 121.

Co-requisite: NURM 121

### **NRML 122 – Nursing II Laboratory**

This is a co-requisite laboratory course for NURM 122.

Co-requisite: NURM 122

### **NRML 141 – Accelerated Nursing Laboratory – Spring NURM**

This is a co-requisite laboratory course for NURM 141.

Co-requisite: NURM 141

### **NRML 221 – Nursing III Laboratory**

This is a co-requisite laboratory course for NURM 221.

Co-requisite: NURM 221

### **NRML 222 – Nursing IV Laboratory**

This is a co-requisite laboratory course for NURM 222.

Co-requisite: NURM 222

## **NRML 241 – Accelerated Nursing Laboratory – Summer**

This is a co-requisite laboratory course for NURM 241.

Co-requisite: NURM 241

## **NRML 242 – Accelerated Nursing Laboratory – Fall**

This is a co-requisite laboratory course for NURM 242.

Co-requisite: NURM 242

## **PED • Physical Education**

### **PED 101 – Concepts of Adult Fitness**

Through a series of lectures and practicums, this course explores various aspects of health and physical fitness. 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 -HIS 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 -HIS 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: PHY 101  
Co-requisite: PHYL 102  
3 lecture hours per week  
3 credit hours

**▲ 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: MAT 171  
Co-requisite: PHYL 111  
3 lecture hours per week  
3 credit hours

**▲ 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

**▲ 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

**PHY 202 – Optics and Modern Physics**

This course is 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 • Physics Lab****▲ PHYL 102 – General Physics II Laboratory**

Physics laboratory to accompany PHY 102.  
Co-requisite: PHY 102  
3 laboratory hours per week  
1 credit hour

**▲ 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

**▲ PHYL 125 – Elements of Physics Laboratory**

Physics laboratory to accompany PHY 125.  
Co-requisite: PHY 125  
2 laboratory hours per week  
1 credit hour

**▲ PHYL 201 – Electricity and Magnetism Laboratory**

Physics laboratory to accompany PHY 201.  
Co-requisite: PHY 201  
3 laboratory hours per week  
1 credit hour

## 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, BIOL 105, MAT 113, and PSY 101  
Co-requisite: BIO 106 and BIOL 106  
8 lecture 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, BIOL 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. The majority of the course hours will be completed at an acute care clinical site. Prerequisite: PMD 110, PMD 113  
135 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. Prerequisites: PMD 114, EMT-B, CPR, ACLS, and PALS certification 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 New Jersey state licensed paramedic unit. Objectives of this course will adhere to the N.J.A.C. Code 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. Prerequisite: PMD 213, PMD 214  
1 theory credit hour; 450 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 & 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)

**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.

Prerequisite: ENG 096  
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 socioemotional development from the prenatal period to preadolescence.

Prerequisite: PSY 101  
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  
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 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 Division Dean's office  
3 lecture hours per week  
3 credit hours

### **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 1101), 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](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 (PSRT 1101) or permission of Division Dean's office  
2 lecture hours and 2 laboratory hours per week  
3 credit hours

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#### **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 (PSRT 1101) or permission of Division Dean's office  
2 lecture hours and 2 laboratory hours per week  
3 credit hours

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#### **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 (PSRT 1101)  
3 lecture hours per week  
3 credit hours

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#### **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

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#### **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 1101), PSRT 1102, PSRT 1103, PSRT 1204  
3 lecture hours per week  
3 credit hours

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### **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

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## **PTA • Physical Therapist Assistant**

### **PTA 115 – Functional Anatomy**

This course is the study of neuro-musculo-skeletal structures with an emphasis on the function of typical human movement. Topics studied will include basic human kinesiology and biomechanics, posture and gait analysis, goniometry and manual muscle testing.

Prerequisites: (All with a grade of "C" or better) BIO 105, ENG 101, MAT 119, PSY 101

Co-requisites: PTAL 115, PTA 130, PTA 251

2 lecture hours and 3 laboratory hours per week

3 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: PTAL 130, PTA 115, PTA 251.

3 lecture hours and 9 laboratory hours per week

6 credit hours

### **PTA 140 – Physical Therapy Procedures II**

This course is a study of pathological processes, assessments, 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 as per the PTA scope of practice.

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: PTAL 217, PTA 220, PTA 221, ENG 102 and BIO 106

2 lecture hours and 15 clinical hours per week

7 credit hours

### **PTA 220 – Physical Therapy Procedures III**

This course is the study of pathophysiological processes, medical treatments and appropriate physical therapy procedures for selected neurological conditions commonly seen in physical therapy. Physical therapy treatments will include advanced therapeutic exercises and ADL, modalities, electrotherapy and orthotics in relation to each neurological condition.

Prerequisites: All previous professional course work passed with a minimum grade of "C+", ENG 102, BIO 106

Co-requisites: PTAL 220, PTA 217, PTA 221

4 lecture hours and 6 laboratory hours per week

6 credit hours

### **PTA 221 – Physical Therapy Procedures IV**

This course is a study of pathophysiological processes, medical treatments, and appropriate physical therapy procedures for selected medical and pediatric conditions commonly seen in physical therapy. Physical therapy treatments will include advanced therapeutic exercise, ADL, and assistive devices in relation 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: PTAL 221, PTA 217, PTA 220

3 lecture hours and 3 laboratory hours per week

4 credit hours

### **PTA 223 – Clinical Seminar**

This capstone course is the study of advanced topics in physical therapy education including therapeutic exercise, psychosocial aspects of disability and dying, continuation of total treatment programs for selected conditions, ethical issues 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

2 lecture hours per week

2 credit hours

### **PTA 224 – Clinical Practice II**

Students will participate in a full time supervised Physical Therapist Assistant clinical experience for 14 weeks. Students must provide their own transportation.

Prerequisites: PTA 217, PTA 220, PTA 221.

All previous professional course work passed with a minimum grade "C+"

Co-requisite: PTA 223

36 clinical hours per week

12 credit hours

### **PTA 251 – Independent Living**

This course is the study of barriers that impact people living with disabilities. The course offers the student an opportunity to explore and problem solving the functional limitations of a given disability.

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

## **PTAL • Physical Therapist Assistant Lab**

### **PTAL 115 – Functional Anatomy Laboratory**

This is a co-requisite laboratory course for PTA 115.

Co-requisite: PTA 115

**PTAL 130 – Physical Therapy Procedures I Laboratory**

This is a co-requisite laboratory course for PTA 130.  
Co-requisite: PTA 130

**PTAL 217 – Clinical Seminar and Practice I Laboratory**

This is a co-requisite laboratory course for PTA 217.  
Co-requisite: PTA 217

**PTAL 220 – Physical Therapy Procedures III Laboratory**

This is a co-requisite laboratory course for PTA 220.  
Co-requisite: PTA 220

**PTAL 221 – Physical Therapy Procedures IV Laboratory**

This is a co-requisite laboratory course for PTA 221.  
Co-requisite: PTA 221

**RADM • Radiography, Muhlenberg****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**

This course provides an overview of the biological effects of radiation exposure and 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

**RNTL • Radiology Imaging, Muhlenberg****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 RNTM 201, RNTL 201 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 & evaluate the quality of CT images. Pre/Co-requisite: RNTM 201  
3 clinical hour per week  
1 credit hour

**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 healthcare 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

**RSP • Respiratory Care****RSP 101 – Fundamentals of Respiratory Care**

This course provides an orientation to general patient assessment which includes infection control, patient safety, patient interviewing, ethics, communication, record keeping, electronic record management and clinical laboratory studies. In addition, students will be introduced to basic therapeutic concepts and modalities used in respiratory therapy. These concepts are principles of infection control, gas laws and physics, gas exchange, oxygen transport, regulation of breathing, and patient assessment. There is a focus on basic therapeutics including medical gas delivery, humidity & aerosol therapy, and basic respiratory pharmacology. The course also includes a discussion of signs of sudden cardiac arrest, heart attack, stroke, and foreign body obstruction.

Prerequisites: MAT 113, BIO 105, PSY 101  
Co-requisites: ENG 101, RSP 102, RSP 110

2 lecture, 3 laboratory, and 6 clinical hours per week  
5 credit hours

**RSP 102 – Cardiopulmonary Pharmacology**

This course provides an overview of drugs affecting the cardiopulmonary system, including bronchodilators, corticosteroids, anti-infectives (and antibiotics), skeletal muscle relaxants, central nervous system depressants, respiratory stimulants, diuretics and cardiovascular agents.

Prerequisites: MAT 113, BIO 105, PSY 101  
Co-requisites: ENG 101, RSP 101, RSP 110

2 lecture hours per week  
2 credit hours

**RSP 110 – Cardiopulmonary Anatomy and Physiology**

The course is a study of the anatomy and physiology of the cardiopulmonary system as it relates to respiratory care and 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. In addition, the course will survey the renal system and its effects on the respiratory and cardiovascular systems.

Prerequisites: MAT 113, BIO 105, PSY 101  
Co-requisites: ENG 101, RSP 101, RSP 102

2 lecture hours per week  
2 credit hours

**RSP 111 – Fundamentals of Respiratory Critical Care**

This course builds on the foundation of RSP 101, Fundamentals of Respiratory Care. The course provides knowledge and skills in advanced airway management, arterial blood gas interpretation, sampling techniques, equipment use in analysis, and non-invasive ventilation. The course also provides an introduction to concepts and techniques in invasive ventilation, methods of bronchoscopy and the role of the respiratory therapist in assisting the physician during invasive diagnostic procedures.

Prerequisites: MAT 113, BIO 105, PSY 101, RSP 101, RSP 102, RSP 110  
Co-requisites: ENG 102, BIO 106  
2 lecture, 6 laboratory, and 12 clinical hours per week  
8 credit hours

**RSP 112 – Cardiopulmonary Pathophysiology**

This course is an introduction to the assessment and pathophysiology of patients with cardiopulmonary disease. Emphasis is on assessment of oxygenation, ventilation and acid base balance. Additional course content includes an introduction to pulmonary pathophysiology emphasizing differences in obstructive and restrictive lung disease.

Prerequisites: ENG 102, BIO 106, RSP 111, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, MAT 113  
3 lecture hours per week  
3 credit hours

**RSP 201 – Cardiopulmonary Evaluation**

This course covers invasive and non-invasive diagnostic and monitoring procedures used in Respiratory Care and Intensive Care Medicine. Additional course content includes indications, techniques, complications and result interpretation of the following diagnostic procedures: chest radiology, electrocardiography, pulmonary function testing, hemodynamic monitoring, arterial blood gas analysis, physical assessment, laboratory testing and mechanical ventilation.

Prerequisites: RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, MAT 113  
Co-requisites: RSP 202, RSP 210  
3 lecture hours per week  
3 credit hours

**RSP 202 – Adult Critical Care**

This course covers the physiologic principles and clinical procedures used in both invasive and noninvasive artificial ventilatory support to adults. Topics discussed in this course include: airway management, respiratory failure, physics and physiology of ventilatory support, initiating and adjusting ventilatory support, managing and monitoring the patient in respiratory failure, and discontinuing ventilatory support.

Prerequisites: RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, MAT 113  
Co-requisites: RSP 201, RSP 210  
2 lecture, 6 laboratory, and 18 clinical hours per week  
10 credit hours

**RSP 210 – Long-Term, Home and Rehabilitation Care**

This course consists of an analysis of the goals and methods underlying the delivery of respiratory care in non-acute settings. It includes standards and regulations governing non-acute respiratory care, team planning, patient selection, documentation of various clinical services in the home and in long-term care and rehabilitation facilities. Also included in this course are factors in the costs and reimbursement of services and ethical issues arising in the non-acute setting. This course also discusses current issues and trends in respiratory care practice and out-patient education for asthma and Chronic Obstructive Pulmonary Disease.

Prerequisites: RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, MAT 113  
Co-requisites: RSP 201, RSP 202  
2 lecture hours per week  
2 credit hours

**RSP 211 – Neonatal Pediatric Respiratory Care**

This course provides a comprehensive review of pediatric and neonatal respiratory care. Special considerations of respiratory care practice unique to pediatrics and neonatology are discussed, including pediatric anatomy and physiology, fetal development, clinical assessment, oxygen therapy, airway management, mechanical ventilation, resuscitation, cardiopulmonary pathophysiology and disorders specific to this patient population. Content also includes a discussion of ethical and cultural considerations in the care of the child and family.

Prerequisites: RSP 210, RSP 202, RSP 201, RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, MAT 113  
Co-requisites: RSP 212, RSP 213  
3 lecture hours per week  
3 credit hours

**RSP 212 – Clinical Practice**

This clinical practice rotation is designed to provide supervised experiences 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: RSP 210, RSP 202, RSP 201, RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, MAT 113  
Corequisites: RSP 211, RSP 213  
21 clinical hours per week  
7 credit hours

**RSP 213 – Special Topics Respiratory Care**

This course is 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. The care of patient and families will be studied with a special emphasis on culture, society and family dynamics in the intensive care environment. Ethics and ethical dilemmas will be explored in relationship to delivery of health care and critical care.

Prerequisites: RSP 210, RSP 202, RSP 201, RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, MAT 113  
Co-requisites: RSP 211, RSP 212  
4 lecture hours per week  
4 credit hours

**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 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.

Prerequisite: ENG 096  
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 and social policies for social welfare and assistance in the United States and abroad. A number of socially relevant topics will be discussed, including types of social welfare systems, public attitudes about social welfare policies, intersections of race, class and gender in social policy. In addition, there is discussion about the social work profession and private and non-profit sector social agencies.

Prerequisite: SOC 101  
3 lecture hours per week  
3 credit hours

**SOC 213 – (PSY 213) Social Research Methods**

This course explores the application of scientific methods to the study of human behavior and social interaction. The relationship between theory and research is examined. Students develop skills in understanding and using such techniques as case studies, surveys, experiments, participant observation, testing, and basic statistical devices to analyze data.

Prerequisites: PSY 101 or SOC 101  
3 lecture hours per week  
3 credit hours

**▲ SOC 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: ENG 101  
3 lecture hours per week  
3 credit hours

**▲ 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 fundamental 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 may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.  
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. Native speakers may not take elementary level courses in their native languages designated as 101, 102, 105, or 106.

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

**SCM • Supply Chain Management****SCM 101 – Introduction to Supply Chain Management**

This course is an introduction to the field of supply chain management and logistics. Topics covered include the roles and functions of purchasing, inventory control, physical distribution, transportation methods, and logistics.  
3 lecture hours  
3 credit hours

**SCM 105 – Inventory Management**

This course is an introduction to the inventory management and control. Topics include: inventory fundamentals, forecasting demands, production systems, outsourcing, and inventory planning trends.  
3 lecture hours  
3 credit hours

**SCM 110 – Logistics Technology**

This course is a study of current technology generally used in supply chain management. Topics include creating spreadsheets, analyzing data and charts, creating databases, navigating tables, forms, queries, and reports.  
2 lecture hours. 2 laboratory hours  
3 credit hours

**SCM 201 – Transportation Operations**

This course is a comprehensive study of transportation as a critical ingredient in supply chain management. Topics include global transportation, risk management, planning/execution, and third party logistics.  
3 lecture hours  
3 credit hours

**SCM 205 – Purchasing and Supply Chain Management**

This course is a study of the demands placed on purchasing and supply chain management. Topics include the ethical, contractual, risk management, sustainability, and legal issues associated with purchasing in supply chain management. Other topics include the influence on supply chain management by information system design, inventory, e-commerce, forecasting, and financial planning.  
3 lecture hours  
3 credit hours

**SCM 210 – Operations Management**

This course is a study of the concepts of operations which is an essential function in every business. Topics covered include: process design, service systems, quality management, ERP, inventory control, and scheduling.  
3 lecture hours  
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 • 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 per week  
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

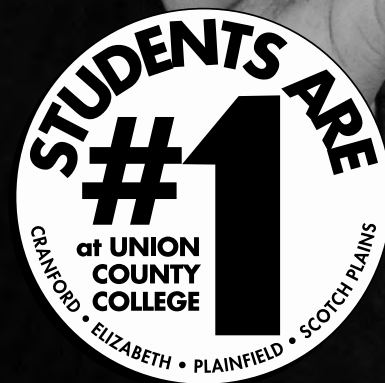
This course provides an internship at Walt Disney World (WDW) in Orlando, Florida or Disneyland in California for one semester. Students must submit weekly journals and a final paper electronically to the WDW instructor. At the time of the required interview with Disney representatives, students must 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  
200 contact hours  
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  
300 contact hours  
6 credit hours





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**Wladimir Romain,** Adjunct, Union County College

**Keith Spero,** Adjunct, Union County College





**U** **UNION**  
COUNTY  
COLLEGE

**Transforming  
Our Community...  
One Student  
at a Time**

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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 maintain 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:

**Mr. Vincent Lotano**  
**Associate Vice President, Administration**  
**Title IX Coordinator**  
MacDonald Hall  
Phone: 908-709-7046  
vincent.lotano@ucc.edu

For information concerning filing a complaint of discrimination, sexual harassment, sexual assault, domestic and dating violence, stalking, investigations, and victim services, please see the link on the Union County College homepage or contact Mr. Lotano.

#### Student Accommodation Requests:

**Ms. Karen Cimorelli**  
**Coordinator of Disability Support and Services**  
Helen E. Chaney Student Services Center  
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**  
**Associate Vice President, Administration**  
**Section 504 Administrator and ADA Coordinator**  
MacDonald Hall  
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

## D CAMPUS

Center, (908) 709-7619

### /ATHLETICS OFFICE

Center, (908) 709-7017

### Y OFFICE

Development Building, SD 108  
(908) 709-7152

### VERNMENT

Center, (908) 709-7074

### VICES CENTER

Development Building  
Chaney Student Services Center  
(908) 709-7500

Center Email Address:

center@ucc.edu

Admissions/Records/Registration (E-mail: admissions@ucc.edu)

Advising, Career, and Transfer Services (E-mail: advising@ucc.edu)

Careers Services (E-mail: careerservices@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)

Student Services

## CAMPUS

### BOOKSTORE

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

### CAREER SERVICES CENTER

Kellogg Building, 1st Floor  
(908) 527-7220  
email: careerservices@ucc.edu

### 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

Lessner Building, 1st Floor  
40 West Jersey Avenue  
Elizabeth, NJ 07202  
(908) 965-6050

- Testing Center, Email Address: testingcenter@ucc.edu
- 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

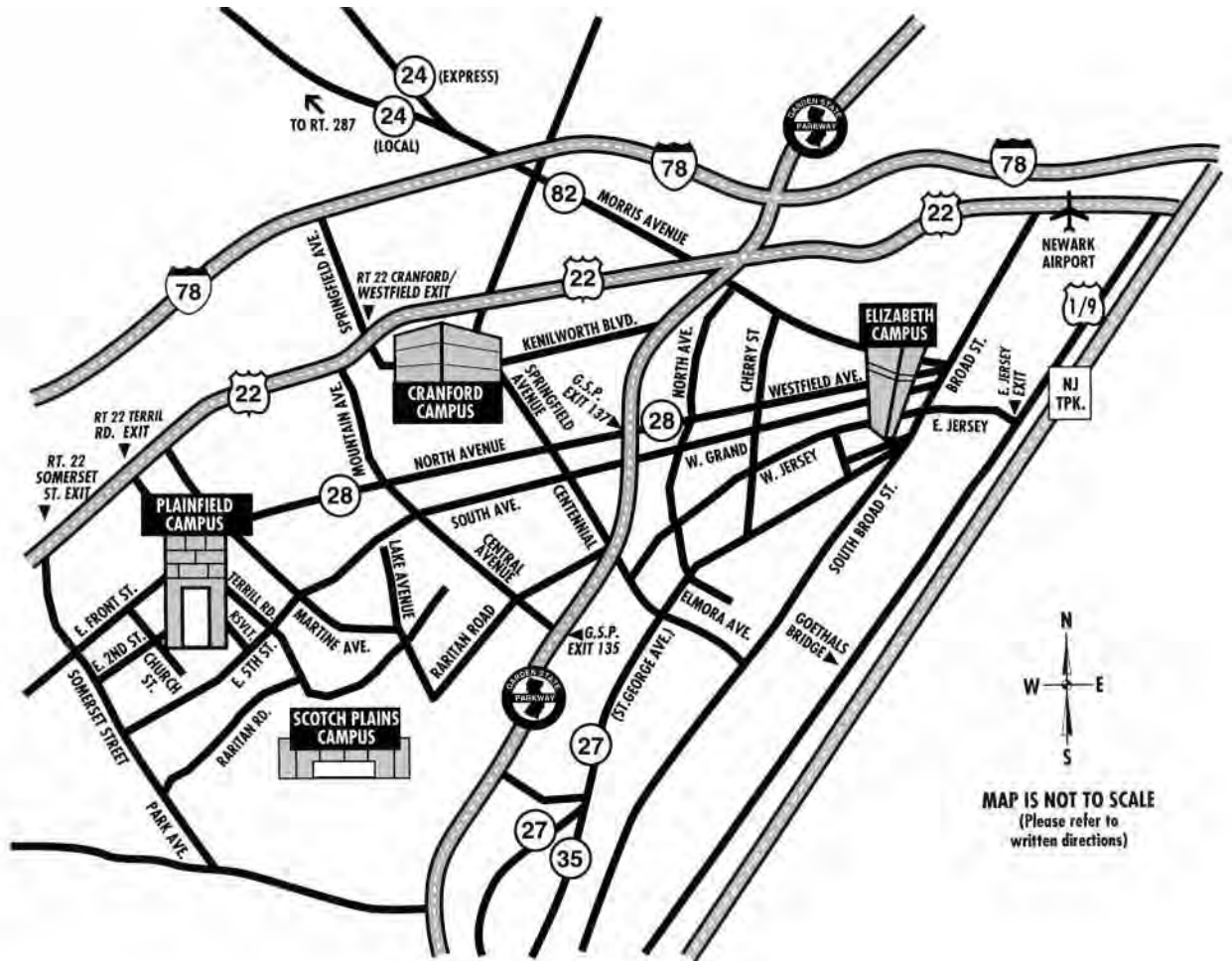
Logos Building  
232 East Second Street  
Plainfield, NJ 07060  
(908) 412-3550

- 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





# 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.





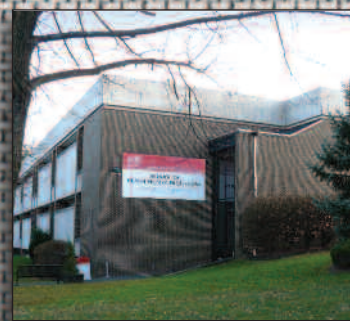
**CRANFORD**



**ELIZABETH**



**PLAINFIELD**



**SCOTCH PLAINS**



Transforming  
Our Community...  
One Student  
at a Time

1033 Springfield Avenue  
Cranford, NJ 07016  
908-709-7000

[www.ucc.edu](http://www.ucc.edu)



# 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  
**HIS 225** Women in American History  
**HIS 230** Latin American History  
**HRS 103** Honors Seminar Cross-Cultural Study  
**SOC 102** Social Problems  
**SOC 103** Gender, Culture and Society  
**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 225** Women in American History  
**HIS 230** Latin American History  
**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 209** World Literature I 3 credit hours  
**ENG 210** World 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  
**ENG 247** Women Authors  
**FIA 105** Music Appreciation  
**FIA 108** Appreciation of Art

**FRE 102** Beginning French II  
**FRE 111** Intermediate French I  
**FRE 112** Intermediate French II  
**FRE 121** Advanced French I  
**FRE 122** Advanced French II  
**GER 101** Beginning German I  
**GER 102** Beginning German II  
**HIS 101** Introduction to Western Civilization I  
**HIS 102** Introduction to Western Civilization II  
**HIS 103** Introduction to World History I  
**HIS 104** Introduction to World History II  
**HIS 105** Afro-American History I  
**HIS 106** Afro-American History II  
**HIS 201** United States History to 1865  
**HIS 202** United States History Since 1865  
**HIS 209** Twentieth Century European History



**FIA 111** Art History Survey I  
**FIA 112** Art History Survey II  
**FIA 117** Survey of Music in the Twentieth Century  
**FIA 124** Theater Appreciation  
**FIA 132** Introduction to Dramatic Literature  
**FIA 220** Introduction to History of Photography  
**FIA 232** Modern and Contemporary Dramatic Literature  
**FRE 101** Beginning French I

**HIS 215** The American Experience in the Twentieth Century  
**HIS 225** Women in American History  
**HIS 230** Latin American History  
**HIS 270** The Classical Heritage of Greece and Rome  
**HRS 104** Honors Seminar in Interdisciplinary Studies  
**ITA 101** Beginning Italian I  
**ITA 102** Beginning Italian II

# AMERICAN SIGN LANGUAGE AND DEAF STUDIES

## ASSOCIATE IN SCIENCE DEGREE



The American Sign Language and Deaf Studies Degree Program is designed for individuals who do not have a college degree and are interested in the field of Deaf Studies, Linguistics, communications, psychology, social work, rehabilitation, education of the Deaf and other related areas. The program provides a multi-disciplinary and interdisciplinary approach in American Sign Language and Deaf Studies. Areas of scholarly pursuit include cultural and historical studies, linguistic examination, and literary analysis, as well as the study of the language in its conversational form. Graduates will be prepared for entry-level positions working with Deaf persons. 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 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
<b>ASL 101</b>	<b>American Sign Language I</b>	<b>3</b>
ASL 102	Visual-Gestural Communication 2	2
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
SOC 102	Social Problems	3
<b>MAT 125</b>	<b>Survey of Special Topics in Mathematics</b>	<b>4</b>
<b>ASL 103</b>	<b>American Sign Language II</b>	<b>3</b>
ASL 104	ASL Classifiers	2
HUD 104	Fingerspelling	1
<b>Semester Total:</b>		<b>16</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 128	The Dynamics of Communication	3
Lab Science	Gen Ed Requirement	4
<b>ASL 200</b>	<b>Academic American Sign Language</b>	<b>3</b>
ASL 201	American Sign Language III	3
ASL 205	Linguistics of American Sign Language	1
<b>Semester Total:</b>		<b>14</b>
<b>SPRING SEMESTER</b>		
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	Gen Ed Requirement	3
COM 100	Communications Technologies	4
<b>Semester Total:</b>		<b>16</b>
<b>Total Program Credits:</b>		<b>60</b>

# ENGINEERING

AEROSPACE, BIOMEDICAL, CHEMICAL, CIVIL, COMPUTER, ELECTRICAL, ENVIRONMENTAL, SCIENCE, 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.

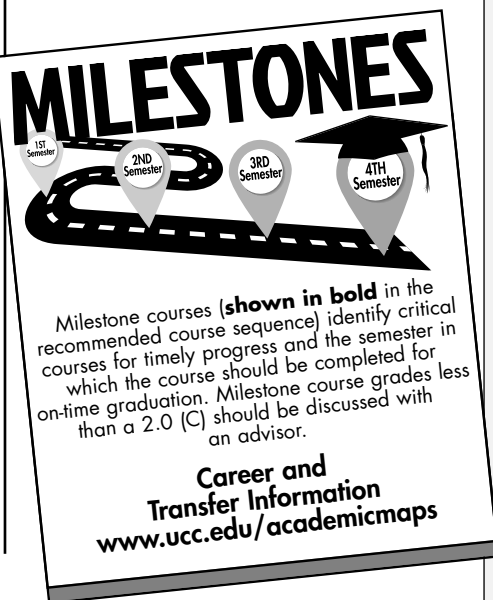
**Upon successful completion of all program requirements, graduates will be able to:**

- 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.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
CHE 111	General Chemistry I	4
<b>EGG 101</b>	<b>Introduction to Engineering: Mathematics and Applications</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>MAT 172</b>	<b>Unified Calculus II</b>	<b>4</b>
CHE 112	General Chemistry II	4
<b>PHY 111</b>	<b>Mechanics</b>	<b>3</b>
PHYL 111	Mechanics Laboratory	1
<b>Semester Total:</b>		<b>15</b>

### SECOND YEAR

<b>FALL SEMESTER</b>		
Humanities	Gen Ed Requirement	3
<b>MAT 271</b>	<b>Unified Calculus III</b>	<b>4</b>
<b>PHY 201</b>	<b>Electricity and Magnetism AND</b>	<b>3</b>
<b>PHYL 201</b>	<b>Electricity and Magnetism Laboratory</b>	<b>1</b>
Tech Elective <sup>1</sup>	(Mechanical & Civil)	3
OR		
Tech Elective <sup>1</sup>	(Chemical)	5
OR		
Tech Elective <sup>1&amp;2</sup>	(Electrical)	5
<b>Semester Total:</b>		<b>14 or 16</b>
<b>SPRING SEMESTER</b>		
Tech Elective <sup>2 &amp; 3</sup>	(Mechanical & Civil)	6
OR		
Tech Elective <sup>2</sup>	(Chemical)	4
OR		
Tech Elective	(Electrical)	4
ECO 202	Principles of Economics II	3
Humanities or Social Science	Gen Ed Requirement	3
MAT 272	Differential Equations	4
<b>Semester Total:</b>		<b>14 or 16</b>
<b>Total Program Credits:</b>		<b>60</b>

\* The stated sequence of courses for the Professor Elmer Wolf Engineering program assumes that the student is math-ready for calculus.

#### Engineering Track Electives

Engineering Track Elective credits require approval of Division Dean's office or designee and are selected dependent on the track from which the student is following. See the tracks below.

#### Mechanical Engineering Track Electives

- EGG 201 - Engineering Mechanics (Statics) 3 credit hours
- EGG 202 - Engineering Mechanics (Dynamics) 3 credit hours
- MET 106 - Engineering Materials and Processes 3 credit hours

#### Civil Engineering Track Electives

- EGG 201 - Engineering Mechanics (Statics) 3 credit hours
- EGG 202 - Engineering Mechanics (Dynamics) 3 credit hours
- Elective 3 credits

#### Electrical Engineering Track Electives

- EGG 111 - Engineering & Computer Graphics 2 credit hours
- EGG 251 - Digital Design 3 credit hours
- EGG 207 - Principles of Electrical Engineering 4 credit hours

#### Chemical Engineering Track Electives

- CHE 211 - Organic Chemistry I 5 credit hours
- Elective 4 credits (CHE 212 - Organic Chemistry II recommended 5 credit hours)



# 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 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 the 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:

#### Mechanical Engineering Technology Track:

##### First Year, Spring Semester

MET 106<sup>1</sup> 3 credit hours

##### Second Year, Fall Semester

MET 104<sup>2</sup> 3 credit hours

MET 219<sup>3</sup>, 3 credit hours

##### Second Year, Spring Semester

CIT 210<sup>4</sup>, 3 credit hours

CIT 215<sup>5</sup> 3 credit hours

### RECOMMENDED SEQUENCE

#### FIRST YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>MAT 171</b>	<b>Unified Calculus I*</b>	<b>4</b>
EET 101	Principles of DC Circuits	4
<b>MET 109</b>	<b>Computer-Aided Drafting</b>	<b>3</b>
<b>Semester Total:</b>		<b>18</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
<b>Math Gen Ed Requirement**</b>		<b>4</b>
<b>MET 112</b>	<b>Mechanics-Statics</b>	<b>3</b>
<b>EET 111 - Digital Computer Fundamentals</b>		<b>4</b>
Track Elective (EET/MET) <sup>1</sup>		3
<b>Semester Total:</b>		<b>17</b>

#### SECOND YEAR

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
Humanities Gen Ed Requirement		3
CST 115	Introduction to Computer Programming	3
<b>PHY 101</b>	<b>General Physics I AND</b>	<b>3</b>
<b>PHYL 111</b>	<b>Mechanics Laboratory</b>	<b>1</b>
Track Elective (EET) <sup>2</sup>	OR	5
Track Elective (MET) <sup>2,3</sup>		6
<b>Semester Total:</b>		<b>15 or 16</b>
<b>SPRING SEMESTER</b>		
ECO 201	Principles of Economics I	3
PHY 102	General Physics II	3
PHYL 102	General Physics II Laboratory 1 credit hour	1
Track Elective (EET) <sup>3,4</sup>	OR	7
Track Elective (MET) <sup>4,5</sup>		6
<b>Semester Total:</b>		<b>13 or 14</b>
<b>Total Program Credits:</b>		<b>60</b>

### Notes:

\* The stated sequence of courses for the Engineering Technology program assumes that the student is math-ready for calculus.

\*\* Students are strongly encouraged to take MAT 172 as the Math Gen Ed Requirement

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#### Electronics/Electromechanical Engineering Technology Track:

##### First Year, Spring Semester

EET 102<sup>1</sup> 3 credit hours

##### Second Year, Fall Semester

EET 213<sup>2</sup> 5 credit hours

##### Second Year, Spring Semester

CIT 210<sup>3</sup> 3 credit hours

EET 204<sup>4</sup> 4 credit hours

# NURSING, TRINITAS SCHOOL OF NURSING

## ASSOCIATE IN SCIENCE DEGREE, cont'd

### Additional Nursing Program Requirements

All nursing students are required to meet additional mandatory requirements prior to enrollment in clinical nursing courses (Generic Track - NURE 131 ; LPN-RN Track - NURE 212 ).

All students are required to maintain a minimum GPA of 2.5 while enrolled in nursing courses.

For additional information on the Trinitas School of Nursing, please visit the website at [www.trinitasschoolofnursing.org](http://www.trinitasschoolofnursing.org) or email [trinitas@ucc.edu](mailto:trinitas@ucc.edu).

### RECOMMENDED SEQUENCE FOR FULL-TIME STUDENT ENROLLMENT\*

#### GENERIC CURRICULUM

##### DAY AND EVENING DIVISIONS

NURE 130, NURE 131, NURE 132, NURE 231, and NURE 232 are offered during the Fall and Spring semesters.

COURSE#	COURSE	CR.
<b>FALL SEMESTER</b>		
ENG 101	English Composition I	3
<b>BIO 105</b>	<b>Anatomy and Physiology I</b>	<b>4</b>
CHE 114	Principles of Organic Chemistry and Biochemistry	4
<b>NURE 130</b>	<b>Nursing Trends and Concepts</b>	<b>4</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
PSY 101	General Psychology	3
<b>BIO 106</b>	<b>Anatomy and Physiology II</b>	<b>4</b>
<b>NURE 131</b>	<b>Nursing I</b>	<b>8</b>
<b>Semester Total:</b>		<b>15</b>
<b>FALL SEMESTER</b>		
PSY 204	Lifespan Development	3
<b>BIO 108</b>	<b>Microbiology</b>	<b>4</b>
<b>NURE 132</b>	<b>Nursing II</b>	<b>8</b>
<b>Semester Total:</b>		<b>15</b>
<b>SPRING SEMESTER</b>		
ENG 102	English Composition II	3
SOC 101	Principles of Sociology	3
NURE 231	Nursing III	8
<b>Semester Total:</b>		<b>14</b>
<b>FALL SEMESTER</b>		
NURE 232	Nursing IV	8
Humanities Gen Ed Requirement		3
Humanities Gen Ed Requirement		3
<b>Semester Total:</b>		<b>14</b>
<b>Credit Allocation:</b>		
	<b>Nursing Credits:</b>	<b>36</b>
	<b>General Education Credits:</b>	<b>37</b>
	<b>Total Program Credits:</b>	<b>73</b>

A total of 73 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 65-75 credits.

\*Due to the rigorous nature of nursing curriculum courses, it is recommended that if the full-time sequence of courses is chosen, students limit outside work obligations to support student success in the program.

### RECOMMENDED SEQUENCE

#### LPN TO RN CURRICULUM

##### RN COMPLETION PROGRAM FOR LPNS:

NURE courses are offered in the evening in this division.

COURSE#	COURSE	CR.
<b>PREREQUISITES</b>		
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
BIO 105	Anatomy and Physiology I	4
BIO 106	Anatomy and Physiology II	4
CHE 114	Principles of Organic Chemistry and Biochemistry	4
BIO 108	Microbiology	4
Humanities Gen Ed Requirement		3
Humanities Gen Ed Requirement		3
Licensed Practical Nurse Curriculum		10
<b>FALL SEMESTER</b>		
NURE 211	Bridge-to-Professional Nursing Core Concepts	3
NURE 212	Health and Physical Assessment	4
<b>SPRING SEMESTER</b>		
NURE 250	Nursing Care of the Client with a Medical Surgical Health Deviation	6
<b>SUMMER SESSION</b>		
NURE 260	Nursing Care of Children and their Families	3
NURE 270	Nursing Care of Women and the Childbearing Family	3
<b>FALL SEMESTER</b>		
NURE 280	Nursing Care of the Client with Mental Illness	3
NURE 290	Nursing Care of the Client With Complex Multi-System Medical/Surgical Health Deviation	3
NURE 291	Leadership and Management Seminar	1
<b>Credit Allocation:</b>		
	<b>Nursing Credits:</b>	<b>36</b>
	<b>General Education Credits:</b>	<b>37</b>
	<b>Total Program Credits:</b>	<b>73</b>

Revised 7-2019

## AFTER UNION COUNTY COLLEGE

Graduates of these programs can either work in the Nursing/Health professions or continue their educational pursuits.

**NURE 132 – Nursing II**

This course builds upon the foundation of NURE 130/NURE 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, PSY 204, NREL 132. 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, BIO 106, BIO 108; CHE 114; ENG 101, ENG 102; PSY 101, PSY 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

**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 GPA of 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, NURE 131, and NURE 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, SOC 101, NREL 231. 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, NURE 131, NURE 132, & NURE 231. It explores the nurses's role in caring for adult clients experiencing complex medical-surgical health alterations that are potentially life threatening and adult clients experiencing acute and chronic psychiatric mental health alterations. Learning experiences are provided in the classroom, Learning/Simulation Center and in multicultural adult medical/surgical and psychiatric/mental health facilities.

15 week course.  
Prerequisites: NURE 231, NREL 231, All liberal arts and science courses listed in the curriculum, GPA 2.5

Co-requisites: NREL 232, 6 credits General Education Humanities Electives  
4 hours theory, 12 hours clinical per week  
8 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/NURE 212, NREL 212, and GPA 2.5. 15 week course

Co-requisite: NREL 250  
3 hours theory, 9 clinical hours per week  
6 credit 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. 7 week course  
Co-requisite: NREL 260  
3 hours theory, 9 hours clinical per week  
3 credit hours