UNION COLLEGE

of Union County, NJ

2023-2024 CATALOG • www.ucc.edu

A MESSAGE FROM THE **PRESIDENT**

Welcome Students!

Union College of Union County, NJ 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 College, we are committed to helping you achieve this goal. Our faculty and staff work each day to support our students as you work toward your goals. We take pride in delivering on the promise of an excellent 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 "Programs of Study" section provides a step-by-step roadmap for your chosen program of study. You will find more than 65 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 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 successful year. We promise to do whatever we can to help you get started, stay on track, and achieve your individual educational goals. We have many resources available to help you succeed, from academic advising, assistance with financial aid, and free peer-to-peer tutoring in the Academic Learning Center. Your success is our success.

Thank you for choosing to further your education at Union College as we continue our mission of transforming our community, one student at time.

Sincerely,

Margaret M. McMenamin

Dr. Margaret M. McMenamin
President

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About Union

Union College of Union County, NJ

Union College of Union County, NJ 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 18 associate degree colleges and has been serving both career-minded and transfer-oriented students since 1933. The College operates campuses in Cranford, Elizabeth, Plainfield, and Scotch Plains. It enrolls 15,000 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/RWJ Barnabas Health in Elizabeth, New Jersey, and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools in Plainfield, New Jersey.

History

Union College of Union County, NJ has a remarkable history as the oldest of New Jersey's community colleges. The College began in 1933 as a one-room night school and has been known through the past 90 years as Union County Junior College, Union Junior College, Union College, Union County College, and as of July 1, 2022, as Union College of Union County, NJ, a comprehensive community college serving students 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 with the original mission of providing jobs for unemployed teachers and professors.

By 1936, the College became Union Junior College, an independent, non-profit, degree-offering institution governed by a Board of Trustees. In 1967, the College became Union College and in 1982, the College merged with the County-funded Union County Technical Institute to form Union County College. The merger included the establishment of a Board of Governors to act in an advisory capacity.

The current Union College is an open-access community college that currently offers more than 65 associate degrees and certificate programs, as well as noncredit opportunities for continuing education and workforce development. Union has campuses in Cranford, Elizabeth, Plainfield, and Scotch Plains. In addition to its traditional in-person classes, the College offers the option of taking classes online with a robust offering of online courses and 25 fully-online degree programs.

Half of the College's students are enrolled at the suburban Cranford Campus. The urban Elizabeth Campus is in the heart of New Jersey's fourth largest city where 20 percent of the College's students take classes.

The Plainfield Campus doubled its footprint in 2015 when it opened the Health Sciences building 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. The two-story Student Development Building, an extension of the historic Nomahegan 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 has classrooms and faculty offices.

The Plainfield Campus Annex Building re-opened in 2016 after being shuttered for four years by a fire and contains a library, bookstore, cafeteria, and faculty offices.

In June 2017, Union's accreditation was reaffirmed by The Middle States Commission on Higher Education, a voluntary, non-governmental, membership association that defines, maintains, and promotes educational excellence.

The most recent renovations at the Elizabeth Campus were completed in the Lessner Building in 2018. This included the development of a new Student Services Center on the first floor and offices and training classrooms on the lower level for the College's Center for Economic and Workforce Development.

In November 2019, the College was named one of the top 150 community colleges in the U.S. by the Aspen Institute College Excellence Program. The College was chosen based on our strong and improving student outcomes in learning, completion rates, employment rates and earnings, and equity.

In January 2020, the Plainfield Campus marked the completion of renovations on the Health Science Building, adding state-of-the-art facilities and labs for the paramedic emergency health science, physical therapist assistant, and respiratory care programs. Training and education in these programs lead to jobs in high-demand healthcare fields.

In March 2020, as COVID-19 hit the United States, the College was forced to adapt in the wake of this global health crisis. The College's physical buildings were closed with operations and spring 2020 classes moved to a remote format. This transition involved a heavy reliance on technology. While COVID-19 impacted the way in which the College operated and delivered education, the College's commitment to its mission remained unchanged.

In April 2022, the College was named as one of 25 semifinalists for the 2023 Aspen Prize for Community College Excellence. This is the second consecutive time the College has been acknowledged by the Aspen Institute College Excellence Program but the first time as a semifinalist. The College was chosen for this honor among more than 1,000 community colleges nationwide based upon having high and improving levels of student success as well as equitable outcomes for Black and Hispanic students and those from lower-income backgrounds.

In 2022, the College's Scotch Plains Campus was re-opened and re-imagined as a University Center and home to the College's virtual campus. Located on the same property with the Union County Vocational Technical Schools and John H. Stamler Police Academy, this destination campus is an opportunity for students to take both credit and non-credit courses or pursue a four-year degree with one of the

College's university partners in a newly renovated state-of-the art space.

In fall 2022, the Kellogg Building on the Elizabeth Campus was re-opened after sustaining significant damage as a result of Hurricane Ida in September 2021. The storm flooded the lower level of the building with over four feet of water causing extensive electrical, structural, and equipment damage.

On July 1, 2022, the College's name was changed to Union College of Union County, NJ. While the name has changed, the College's commitment to student success remains the same. The "new" name is also familiar to the College's history: from 1967 until 1982, the College was actually named Union College! With each new program, opportunity, and modern space for learning, the College is fulfilling our mission of transforming our community…one student at a time!

Mission

Union 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 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 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 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 College of Union County, NJ is accredited by the Middle States Commission on Higher Education, 11007 North Orange Street, 4th Floor, MB #166, Wilmington, DE 19801. 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, now Union College of Union County, NJ, 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 College of Union County, NJ is licensed by the State of New Jersey. Union College had been licensed since 1939.

The following programs hold professional accreditation:

Emergency Medical Studies – The Emergency Medical Technician certification course is approved by the Office of Emergency Medical Services(OEMS) www.state.nj.us/health/ems/

Radiography - (Joint Review Committee on Education in Radiologic Technology, conducted jointly with JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging);

Respiratory Care - (The Union College of Union County, NJ 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). 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 of Nursing and Medical Imaging and Trinitas School of Nursing/RWJ Barnabas Health);

Practical Nursing - (New Jersey Board of Nursing as well as accredited by the National League for Nursing Commission for Nursing Education Accreditation);

Paramedic Emergency Health Science - (The Union College of Union County, NJ Paramedic Emergency Health Science Program is accredited by the Commission of Allied Health Education Programs (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 of Nursing and Medical Imaging).

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

Campus Locations

Cranford Campus

The Cranford Campus of Union College is located at 1033 Springfield Avenue and 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 easily accessible by car, served by three bus routes of New Jersey Transit, and within a mile of the Cranford Station of New Jersey Transit's Raritan Valley Railroad line. There are nine major buildings: 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 newest addition to the Campus is the Student Development Building which contains lecture and computer classrooms, faculty offices, and the Helen E. Chaney Student Services Center offering one stop model assistance for 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; 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 located within the major business district of the City and includes 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. The buildings, including their lower levels, offer 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/RWJ Barnabas Health is also located on Union's Elizabeth Campus. 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 the City. The College leases 600 parking spaces under a long-term arrangement with the city of Elizabeth in the J. Christian Bollwage Parking garage, which sits in between the Lessner and Kellogg Buildings.

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 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 three-story Logos building contains classrooms, lecture hall, 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 recently renovated Health Sciences Building across Roosevelt Avenue contains instructional space for the Practical Nursing, Emergency Medical Technician/Paramedic Training, Respiratory Care, and Physical Therapist Assistant programs as well as Allied Health labs, student lounge, and faculty offices.

Scotch Plains Campus

The College shares a 40-acre campus located at 1776 Raritan Road with the Union County Vocational Technical Schools and the John H. Stamler Police Academy. The College operates one building that includes state of the art technology-enhanced classrooms, lecture hall, seminar and conference rooms, science laboratories, faculty and administrative offices, and Campus Center. Serving both credit and non-credit students, the Campus, which also serves as the home to the College's virtual campus, is convenient to Route 22, major State routes, and one bus line.

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 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 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 seven 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 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;

Women 100 Project is the newest of the Foundation's Student Success Initiatives. This campaign provides funds for scholarships and programming to inspire and engage the next generation of women leaders;

The Food Insecurity Program provides free meals and helps support the College's food pantry;

Veterans Assistance Program provides financial assistance to our students who served our nation; and

Student Emergency Relief Fund originally developed to help students impacted by the COVID 19 pandemic, but is now available to students who need support for non-academic expenses.

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 or visit the Foundation's website at https://www.ucc.edu/union-county-college-foundation/.

Admissions and Registration

Welcome

Welcome to the Union College of Union County, NJ (Union 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 Processes and 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 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 College Application for Admission. The application for credit admission can be obtained through the College website, www.ucc.edu.

Degree Programs

It is highly recommended that students 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. Acceptance to Union College programs are not based on SAT scores. Certain SAT scores may exempt students from the Directed Self-Placement Questionnaire and may be required to qualify for selected scholarships at Union College. It is the student's responsibility to register for the SAT exam and have the final scores provided to Union College. Students may visit www.collegeboard.com directly to review registration information (Union College CEEB Code is 2921).

4. After submission of the Union College application and before enrolling in courses, completion of the Directed Self-Placement (DSP) Questionnaire is required for placement in English and mathematics, unless a student meets the exemption criteria. Students may also be asked to take an ESL test. The results of the test will not affect admission to the College (see Testing and Placement).

5. 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.

6. 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.

7. 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. and Dorothy A. Snyder Schools of Nursing and Medical Imaging, and Trinitas School of Nursing/RWJ Barnabas Health (see Admission to Health Science Programs).

8. JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging applicants must apply directly to the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging; all academic processing will be handled through the Schools.

9. The Trinitas School of Nursing/RWJ Barnabas Health application for admission must be submitted directly to trinitas@ucc.edu.

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.

Testing and Placement

After admission to the College and before enrolling in classes, students must complete the Directed Self-Placement (DSP) Questionnaire or meet exemption criteria. The DSP Questionnaire is used to determine whether students are

prepared for college-level coursework in mathematics and English. While the results of the DSP Questionnaire 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 order to complete the DSP Questionnaire or ESL Test, a student must have a College identification number and, if testing, present a form of photo identification. There are no appointments to take the ESL test; students may do so on a walk-in basis during the Testing Center's open hours. Please see the Testing Center's website for current hours and locations: http://www.ucc.edu/testing

Directed Self-Placement into higher level Math for STEM majors:

Students may also self-place into higher level math using the Mathematics Directed Self-Placement Questionnaire second set of questions. This may allow students to progress through their program at a faster rate. Placement into specified advanced mathematics courses may require approval from the Dean of STEM.

Union College requires that the following students complete the Directed Self-Placement (DSP) Questionnaire for English and mathematics:

- Full-time and part-time freshmen entering Union College.
- Students who have not already completed the DSP Questionnaire, 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 completing the Directed Self-Placement (DSP) Questionnaire for English and/or mathematics*:

- 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 may be exempt from completing the DSP Questionnaire. The College reserves the right to evaluate placement upon review of the student's high school transcript.
- A student who presents SAT (Scholastic Achievement Test from the College Board) scores of at least 450 in Critical Reading and/or at least 500 in mathematics will be exempt from the appropriate DSP Questionnaire.
- A student who presents ACT scores of 22 or higher in Reading and 18 or higher in English; ACT score of 20 or higher in mathematics will be exempt from the appropriate DSP Questionnaire.
- A student who presents PARCC scores of 4 or higher in English/Language Arts and/or mathematics will be exempt from the appropriate DSP Questionnaire.
- A student who has earned a bachelor's degree from an accredited U.S. college will be exempt from the DSP Questionnaire.
- 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 DSP Questionnaire.
- A student who has satisfactorily completed developmental courses in English and/or elementary algebra at another college may be exempt from the appropriate DSP Questionnaire.

**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.

International Student Applicants

Union College welcomes applicants from over 40 nations around the world and we are proud of the diversity of our student body. International applicants must follow the same application process to the college as all other prospective students. The College is authorized by the Department of Homeland Security (DHS) to issue the Form I-20 through the Student and Exchange Visitor Information System (SEVIS) to individuals wishing to study in the U.S. in F-1 student status. F-1 status is for full-time academic and language students who are pursuing a degree in the U.S. The Form I-20 is issued by a Designated School Official (DSO) at the college for those international applicants who have been admitted to the college. To obtain a Form I-20, prospective students must provide the following documents:

- I-20 Application Form
- Copy of acceptance letter
- Evidence of payment of the $250 non-refundable deposit
- Evidence of readily available funds to cover Union College Tuition and Fees, and living expenses
- Affidavit of Support (if you are not self-funded)
- Copy of a valid passport (valid for at least 6 months in the future)
- Copy of electronic I-94 card, if currently in the US
- For prospective students applying from abroad who do not have English as their first language, a satisfactory performance on the Test of English as Foreign Language (TOEFL) is required for applying for the Form I-20. A minimum TOEFL score of 30 on the Internet Based Test is required, or a minimum score of 380 on the Paper Based Test or 3.5 on the IELTS exam is required. 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 College is 00264300
- Applicants currently in the United States may take the Union 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 College.

Please email the International Student advisor at international@ucc.edu to receive the I-20 application Form.

Students In the U.S. Under A Status Other Than F-1:
If you are in, or plan to enter the United States in another non-immigrant status, you may or may not need to obtain F-1 status in order to study at Union College. However, many non-immigrant statuses carry immigration restrictions on study and employment that may make it desirable to seek F-1 status. Contact the international student advisor at international@ucc.edu to determine eligibility for a change of status or with specific questions about your individual situation.

Application Deadlines:
- Fall Term is June 1
- Spring Term is November 1

For additional information regarding the admissions process, you must contact the Admissions office at admissions@ucc.edu or access our virtual Student Services, Monday-Friday from 10 am - 4 pm.

Application for admission and all required documentation outlined in the student packet must be submitted in its entirety, by the application deadline. Students currently in the United States with an I-20 from another U.S. institution who wish to attend Union College must follow the same admissions procedure and will be required in addition to provide:
- Official transcripts from all colleges or universities attended.

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

Veterans Applicants

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

VA Pending Payment Provision

In accordance with Title 38 US Code 3679 subsection (e), this school adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 GI Bill® (Ch. 33) or Veterans Readiness and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA. This school will not:
- Prevent the students enrollment
- Assess a late penalty fee to
- Require student secure alternative or additional funding
- Deny their access to any resources (access to classes, libraries or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:
- Provide Chapter 33 Certificate of Eligibility (or its equivalent) or for Chapter 31, VA VR&E's contract with the school on VA Form 28-1905 by the first day of class. Note: Chapter 33 students can register at the VA Regional Office to use E-Benefits to get the equivalent of a Chapter 33 Certificate of Eligibility. Chapter 31 student cannot get a completed VA Form 28-1905 (or any equivalent) before the VA VR&E case-manager issues it to the school.
- Provide written request to be certified via the Veteran's Enrollment Certificate
- Provide additional information needed to properly certify the enrollment as described in other institutional policies

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.

If needed, students will take the Directed Self-Placement (DSP) Questionnaire, or have passing cutoff scores for the SAT or ACT (see Testing and Placement) to be exempt from taking the mathematics and/or English portions of the DSP. Bridge applicants must place out of all developmental courses to be eligible for registration. 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 College application for admission with the completed Bridge Form. Acceptance will be based on the results from the DSP Questionnaire SAT, or ACT scores, and submission of required documents.

Dual/Joint Admissions Agreements

Union 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 College has agreements. For more detailed information, see the Dual Admissions & Transfer/Articulation Agreements section of the catalog.

Advanced Degrees/College Graduates

Applicants holding advanced degrees may be required to have an official transcript emailed to admissions@ucc.edu or mailed to the Union 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 Directed Self-Placement exemption or transfer credit evaluation if requested. Applicants holding degrees equivalent to or at advanced levels from those offered at Union College will be reviewed under the same criteria. Students may not matriculate in the same program for which they currently hold an approved degree.

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. and

Dorothy A. Snyder Schools of Nursing and Medical Imaging, and Trinitas School of Nursing/RWJ Barnabas Health .

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

- Advanced and Continuous Studies, A.A.S. Degree
- JFK Muhlenberg Harold B. and Dorothy A. Snyder School of Nursing, A.S. Degree
- Trinitas School of Nursing/RWJ Barnabas Health, A.S. Degree
- Paralegal Studies, Certificate of Achievement
- Paramedic Emergency Health Science, A.A.S. Degree
- Physical Therapist Assistant, A.A.S. Degree
- Practical Nursing, Certificate
- Psychosocial Rehabilitation and Treatment, A.S. Degree
- JFK Muhlenberg Harold B. and Dorothy A. Snyder School of Radiography, A.S. Degree
- Respiratory Care, A.A.S. Degree
- JFK Muhlenberg Harold B. and Dorothy A. Snyder School of Diagnostic Medical Sonography, A.S. Degree

Readmission with Good Standing

A student who has withdrawn from Union 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 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 College registration instructions. Online registration is available to most students and we recommend students take advantage of Self-Service. It is the student's responsibility to be aware of the registration, withdrawal refund policy, etc. and have knowledge of graduation requirements of the student's 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 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.

Current students who wish to change their curriculum must meet all requirements on the Program Change Form available at www.ucc.edu. The students must complete the Program Change Form and send it to their academic advisor for review. 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 Self-Service, 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 College identification card), to the Student Services Center. Tuition refunds will be processed through the Student Services Center, if applicable.

JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging 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. and Dorothy A. Snyder Schools of Nursing and Medical Imaging 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 College/Rutgers SHRP students must meet with an admissions officer or advisor to discuss pre-requisite courses required for the program. Acceptance is based on approval by the Rutgers SHRP admission committee.

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

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

Classification of Students

Matriculated Students - Students who are accepted in a specific program of study for degree or certificate credit on a full-time or part-time basis are matriculated students. Official high school and college transcripts may be required. Full and part-time students who have selected their program of study as undecided 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 Students - 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 College. Students must complete the Program Change Form, available at www.ucc.edu, and send it to their academic advisor for review.

Students requesting a change in their major to an allied health program may be required to fulfill additional requirements.

New students wanting to matriculate (declare a major), but did not do so at time of application submission must see an academic advisor.

Schedule Changes

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

Students who are in the American Honors Program, Educational Opportunity Fund Program (EOF), Health Programs, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging, Trinitas School of Nursing/RWJ Barnabas Health, and Rutgers SHRP will meet with and do all registrations through the program advisor.

Financial Information

Welcome

Union College of Union County, NJ (Union 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 Self-Service Student Finance 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: https://www.ucc.edu/admissions/paying-for-college/tuition-and-fees/

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 for more information. For privacy reasons, please use your student 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. Deadlines can be found on the Academic Calendar for each term: https://www.ucc.edu/academics/academic-calendar/. 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 balance online at any time by going to the Student Finance link in Self-Service at: https://my.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 if 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 Self-Service.

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 increments. 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 through Self-Service https://my.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 be 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** - If the bank does not honor a check, a Returned Check Fee will be assessed. 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 or sent to the bank account of record, if enrolled in direct deposit. 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 dropped 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 a semester.
- **Out-of-County**: Students who for a period of 12 months prior to the first scheduled day of a semester have an address outside of Union County, but within the United States.
- **International**: Students who have their true, fixed, permanent home and principal establishment outside of the United States. International students will be charged the Out-of-County/Out-of-State/International Tuition Rate.

Residency is defined as the place where a person has a true, fixed, permanent home and principal establishment, and to which, whenever the person is absent, the person has the intention of returning. (Board Resolution E014-022 – NJ Admin Code 9A:5-2.1)

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 and Winter terms.
- 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.

Digital Book Subscription

Union College partnered with Cengage to deliver course materials through a digital book subscription program. Students registered in at least one of over 200 identified courses are automatically enrolled in the program for an affordable price of $140. The digital book subscription program provides electronic access for a full calendar year to course materials and 22,000 additional learning resources from the Cengage Unlimited library. Cengage materials are available online in the course Canvas page at the start of the academic term. The course materials can be accessed on any mobile device or computer, including the nearly 2,000 computers on Union College's campuses available during college operating hours.

For a list of identified courses and additional information on the digital book subscription program, visit https://www.ucc.edu/unionbooksubscription

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 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.

Financial Aid

Welcome

The Financial Aid Department administers several state and federal financial aid programs to help Union College of Union County, NJ (Union 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 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. Students are encouraged to apply for financial aid before April 15 to be considered for the maximum eligibility.

Application Procedures

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

Step 1: Complete your FAFSA and State Application
Your first step is to complete the FAFSA (Free Application for Federal Student Aid) at www.fafsa.gov. Remember to enter the school code of 002643 for Union 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 visit Union's website (www.ucc.edu) and select the Admissions & Aid menu.

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 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 the Financial Aid Department. 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 online
All communication from the Financial Aid Department is in an electronic format. This means, as a Union College student, it is essential to check Self-Service to view your financial aid status and/or any documents required to complete your financial aid application AND to check your student email account daily because all communication we send to a student is sent through your student email account.

Financial Aid Application Deadlines

The 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 2021 tax returns for the 2023-2024 academic year. **If you previously received a Tuition Aid Grant (TAG) you will need to complete your FAFSA by April 15, 2023 in order to be considered for the grant in the next academic year (2023-2024)**. For more information on state grants, please visit the website for the State of New Jersey Higher Education Student Assistance Authority (HESAA) at www.hesaa.org. Certain funds are available on a limited basis; therefore, it is in your best interest to apply as early as possible.

Eligibility

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

- Be accepted as a student in an eligible certificate or associate degree program.

- Be making satisfactory academic progress for financial aid purposes.
- Have a high school diploma, General Education Development (GED) certificate, or a secondary school completion credential for home school.
- Be a U.S. citizen or eligible non-citizen (this includes permanent resident status).
- Have a valid Social Security Number.
- Register with Selective Service if required.
- Not be in default on a previously awarded student loan or owe a refund on a previously awarded grant.
- Different forms of financial aid may have additional eligibility criteria.

Cost of Attendance for the 2023-2024 Academic Year

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

Below is the estimated cost of attending Union 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	$5,280.00	$5,280.00
Books and Supplies	$1,440.00	$1,440.00
Food and Housing	$12,678.00	$4,246.00
Transportation	$2,582.00	$2,582.00
Living Expenses	$2,832.00	$2,832.00
Total Budget	**$24,812.00**	**$16,380.00**

Types of Aid Available

Union 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 2023-2024 academic year is $7,395 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 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.

2022-2023	**INTEREST RATES****
Subsidized Loan*	**4.99**%
Unsubsidized Loan	**6.54**%
PLUS (Parent) Loan	**7.54**%

* With a first disbursement date after July 1, 2022.

** Interest rates are subject to change after July 1, 2023.

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

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

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 the FAFSA or by going to the Higher Education Assistant Authority website, www.hessa.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 https://www.hesaa.org/documents/njstars_program.pdf

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.

Community College Opportunity Grant (CCOG) - The Community College Opportunity Grant (CCOG) provides financial assistance for New Jersey residents in a degree-granting program who are enrolled in at least 6 credits per semester in Fall and/or Spring and who have an adjusted gross income of $0 - $80,000 (as of the 2021-2022 AY) will be considered for this state grant. The Community College Opportunity Grant (CCOG) will pay the costs of tuition and approved educational fees that are not already covered by other available grant funds that are applied to a student's account.

For students to be eligible to receive the Community College Opportunity Grant (CCOG) they must meet the following eligibility requirements:

- Completed a Free Application for Federal Student Aid (FAFSA) or the New Jersey Alternative Financial Aid Application by applicable state deadlines
- Enrolled in at least six (6) credits per semester Fall and/or Spring
- Does not have a prior Associate or Bachelor's degree
- Make satisfactory academic progress
- Have a total household adjusted gross income between $0 - $80,000 (as of the 2020-2022 AY)

Union College Scholarships

The Union County College Foundation offers a wide variety of scholarships to help you achieve your educational goals. Last year, the Foundation awarded over $1 million in scholarships to hundreds of 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 located on Union's website (www.ucc.edu) is the application for all of these scholarships. Some scholarships require that you complete the Free Application for Federal Student Aid (FAFSA) in order to be eligible. For more information, please view the Scholarships page of the Financial Aid website.

Rights and Responsibilities

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

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

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

1. Complete and submit application materials to the appropriate agencies within required or recommended time frames.
   - Complete your FAFSA each year at least 4 months prior to the semester that you will be attending.
   - New Jersey residents must meet all deadlines set by the New Jersey Higher Education Student Assistance Authority (HESAA). Deadlines can be found at www.hesaa.org.
   - Read all materials sent to you from the Financial Aid Office and other agencies awarding you aid. Read, understand, and keep copies of all forms you sign.
2. Know and comply with the rules governing the aid you receive. These rules include but are not limited to:
   - You must not be in default on any prior educational loan.
   - You must not owe a refund on any Federal Aid.
3. Provide additional documentation, federal **tax transcripts**, W-2's, and any additional information if requested by the Financial Aid Office or HESAA. Be sure to provide the information to the office that requested it.
4. Comply with the provisions of any promissory note and all other agreements you sign.
5. Complete the registration process each semester by the start of the semester in order to ensure availability of all student aid funds you have been awarded.
6. Use student financial aid proceeds solely for direct educational costs and related living expenses.
7. Know the implications that dropping a course or withdrawing from Union 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 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
    - Academic Learning Center
9. Report private sources of student financial aid to the Financial Aid Services within the Student Services Center. Please submit a copy of your outside scholarship award letter to the Student Services Center.
10. Keep your local and permanent addresses current with the Admissions Office.
11. For Direct Loan borrowers, when you graduate or withdraw from school, remember to complete exit advising at www.studentloans.gov in order to obtain valuable information about repaying your loans.

Financial Aid Policies

Attendance

All students receiving financial assistance must attend classes regularly.

Return of Title IV Funds Policy

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

The Return of /Title IV Funds policy applies to financial 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 College.

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

Credits Attempted/Earned Completed	Percentage
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, the student 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 the student will no longer be eligible for financial aid.

Exceeds Maximum Time Frame: If a student fails to meet the Maximum Time Frame standard, then the student 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 the student 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 the reason for the failure 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 an 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 the reason for the failure 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 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 LAO 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 coursed.

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 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 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 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

Commissioners' Scholars Program

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

- Full-time enrollment status at Union 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 College residency policy)
- Annual family income of $75,000 or less

Students applying for the Commissioners' Scholars Program must file for federal and state financial aid; the Commissioners' Scholars Program award will cover the difference between Union 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.

The Commissioners' Scholars Program is 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 College scholarship. In support of Union 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.

Information on how and when to apply for scholarships can be found by selecting the Admissions & Aid menu on Union's website (www.ucc.edu). 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 if donor is in attendance,
- submit a thank you letter to the donor via the Financial Aid Office,
- maintain a current mailing address and telephone number with the Union 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: http://www.ucc.edu/union-county-college-foundation

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

Current Union College Scholarships as of December 2, 2022

AAI Members Memorial Scholarship (Amateur Astronomers, Inc.)
Academic Learning Center Scholarship
Adjunct Faculty of Union County College Scholarship
Dr. Mandana Ahsani Scholarship
Alatary Memorial 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 Way Scholarship
Dr. Len Chinedum Anyanwwu Academic Excellence Scholarship
Virginia and Henry Apelian Scholarship
The Barnes-Taylor Family Memorial Scholarship
Alan R. Barwiolek 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
Bracher Family and Hesseman Scholarship
Bramnick Law Firm Scholarship
The Nadine Brechner Scholarship
Bristol Myers Squibb Scholarship
Bristol Myers Squibb Future Caregiver Award
Bristol Myers Squibb STEM 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
James & Sheila Campbell Scholarship
Jim & Maggi Campbell Scholarship
Careers in Transportation Scholarship
Rosemary and Eugene Carmody Scholarship (#1 and #2)
Dr. Selina D. Carter Scholarship
Alba Castro vda de Figueroa Memorial 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
Dr. Wendell E. & Gwendolyn A. Clement Scholarship
Coca-Cola Refreshments Scholarship
Colonna/Cormier Scholarship
ConnectOne Bank Scholarship
ConnectOne Bank Completion -Scholarship
Camille and Robert Cormier Scholarship
Corporate Chefs Scholarship
Joana Costa's Scholarship for Dreamers in STEM
County Commissioners' Scholars Program
Daniel G. Covine Memorial Scholarship
Cranford Firefighters Mutual Benevolent Assoc., Local 37, Scholarship
Cranford Jaycees Scholarship
Marie Carmelle Crepin Memorial Scholarship
Rachel Kopel Dare Scholarship
Joan David-Chance Scholarship
Judge Cuddie E. Davidson, Jr. Memorial Scholarship
Charles T. Davis, Sr. Scholarship
Maurice "Moe" DeGennaro Scholarship
Del Cid Dreamer Scholarship
Rachel Ann Drinkwater Scholarship
Dubitsky-Belmonte Scholarship
The Joseph Dzuback Memorial Scholarship
Elizabethtown Gas "Fueling the Future" Scholarship
Engineering/Technology/Architecture Department Scholarship
Parker Enix-Ross Memorial Scholarship
The Equanimity Scholarship
Excellence in Chemistry Scholarship
Faculty Scholarship
Farrell Family Scholarship
Donald J. & Margaret V. Feaster Scholarship
The Dr. Sondra Fishinger Scholarship
The Dr. Sondra Fishinger Honors Scholarship
John G. Flynn Memorial Scholarship
The Barbara H. Foley Scholarship (#1 and #2)
Follett New Student Scholarship
The Fox Family Scholarship (#1 and #2)
Oliver Franklin Scholarship
Harry B. Freeman Memorial Scholarship – He Gave Everything to His Siblings & Their Children
Frog Crossing Foundation, Inc. Scholarship
Frog Crossing Foundation First in the Family Scholarship
Florence Fuchs Levy '01 Scholarship
Gadalla-Rogers Scholarship
Gallagher Family Scholarship
Thomas Gallagher Scholarship
Dorothy Gasorek Memorial Scholarship
The Arthur Geilfuss Memorial Scholarship
The Emma Geilfuss Memorial Scholarship
General Endowment Scholarship
Gibson Family Foundation Scholarship
Nick Gilbert Scholarship
Glasser Foundation Scholarship

Glasser Foundation Completion Scholarship
Glasser Foundation First in the Family Scholarship
Dr. Edward Golda Scholarship
Joe & Rev. Dr. Jeanette Goodson Educational Scholarship
Goppelsroeder Scholarship Award
Robert M. Gray Memorial Scholarship
Dr. Andrea Green Memorial Scholarship
Jerry Green Memorial Scholarship
John & Patricia Griffith Scholarship
Professor Casey Grygotis Scholarship
Richard & 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
Hansome Energy Systems Scholarship
Margaret B. Hanson Memorial Scholarship
Joseph F. Harpula Scholarship for Excellence in Engineering, Technology, & Architecture
Dr. Elizabeth K. Hawthorne Women in Cybersecurity Scholarship
The Walter Hazard Family Scholarship
William R. Hearst Foundation American Honors Scholarship
Professor Donald Hedeen Scholarship
Sherry Heidary Scholarship
Ethel M. Heim – A Friend of the College Scholarship
Everett A. Heim Memorial Scholarship
Hertling/Nickell Family Scholarship
Hillside Lions Club Scholarship
Joe Hines Criminal Justice Scholarship
Thelma Hines Scholarship
The Hispanic Law Enforcement Association of Union County, Inc. Scholarship
Ed & Pat Hobbie/Loretta Castaldo, RN, Nursing Scholarship
Phillip Robert Hudak Scholarship
Robert Hudak Memorial Scholarship
Infineum Science & 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 & Climb Scholarship
Sharon Johnson Educational Excellence Scholarship
Aaron Kabak Scholarship
Alfred and Caryl Kaercher Scholarship
Kaercher "Bridge Builder" Scholarship
The Karma Foundation Scholarship
Sharon Karmazin Scholarship
Leonard James Keating Memorial Scholarship
J.C. Kellogg Foundation Scholarship
Jean Kellogg Scholarship
Kennedy-Porch Family Scholarship
Kiwanis Luerich Scholarship
The Barbara Ann Kloss Scholarship
Ferdinand Klumpp Scholarship
Fred & Betty Kopf Scholarship
Fred & Betty Kopf Scholarship for Part-Time Students
Fred & Betty Kopf Completion Scholarship
Harold Krevsky Memorial Scholarship
Raymond B. and Lillian B. Krov Scholarship
Esther and Jerome Krueger Scholarship
Lakeland Bank Scholarship
Harry Lampel Scholarship for Part-Time Students
Dolores M. Lanzner Memorial Scholarship
Mr. & Mrs. James Lappino Scholarship
Robert and Gloria Law Scholarship
Lawrence-Collins Scholarship
The Legacy Completion Scholarship
Les Malamut Art Gallery Artist Scholarship
Lessner Family Scholarship
Leigh and Julian Levitt Scholarship
Rep. John Lewis Memorial Scholarship
Liddy-LaPadura Scholarship for the Arts
L'OREAL Scholarship
Lown Family 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 & Helen MacRitchie Scholarship
The John A. & Ruth Davis Manger Scholarship
Brail Manger Nursing Scholarship
Manley-Winser Foundation Scholarship
Joseph M. Margiotta Award for Excellence in History & the Social Sciences
Margolies Family Scholarship for 1st Generation Students
Harry B. Martin Memorial Scholarship
Maguire Family Nursing Scholarship
Judy Danetz Mayer Scholarship
The Phyllis Mayer Memorial Scholarship
John H. and Serena M. McCoy Scholarship
James & Bernice McGowan Memorial Scholarship
Dr. William H. McLean Memorial Scholarship
Elizabeth McMenamin Scholarship for Book Worms & Nerds
Stephen McMenamin Scholarship for Women in Computer Science
Clinton Miller, Jr. Scholarship
Bernadette Murphy Scholarship
National Board of Respiratory Care Scholarship
Neafsey Family Scholarship
Barbara Neblett Memorial Scholarship
Dr. Richard F. Neblett Memorial Engineering Scholarship
Robert Sydney Needham Memorial Scholarship
Christine S. Nelson Scholarship
New Horizons Endowed Scholarship
New Jersey Student Tuition Assistance Reward Scholarship (NJ STARS)
Newark Beth Israel Hospital School of Nursing Alumnae Assoc. Scholarship
The Next Chapter Scholarship
Duane & Joanne Norelli Memorial Scholarship
Michael Anthony Norelli Memorial Scholarship
Northfield Bank Foundation Scholarship
Sue Novak, RN, CHPN Nursing Scholarship
Paul J. O'Keeffe Memorial Scholarship
Edward, Alice & Frances Olszewski Scholarship
Dr. Saul Orkin and Maria Lydia Orkin Memorial Scholarship
James P. Ortuso Memorial Scholarship
Overlook Foundation Nursing Scholarship
Zachary Padilla Scholarship
Susan Pancurak Memorial Scholarship
N. Larry Paragano, Sr. Memorial Scholarship
Elizabeth M. & Jesse B. Patberg Memorial Completion Scholarship
Pepsi Scholarship
Perry Family Scholarship
Frank J. Peterpaul Scholarship
J.G. Petrucci Company Veterans Scholarship
Vincent & Jennie Piro Memorial Scholarship
Alexander Polnariev Memorial Scholarship
Ann M. Poskocil Scholarship
Power to Heal Scholarship
Emil Prazak Memorial Scholarship
PSEG Foundation Scholarship
Public Safety Department Scholarship
Anne E. & James T. Quinn Memorial Scholarship
Raudelunas Family Scholarship
Eleanor B. Reiner Foundation ASL/Deaf Studies Scholarship
Respect, Diversity and Inclusion Scholarship
The Ann Richards Memorial Scholarship
Andrea and Victor M. Richel Family Foundation Scholarship

Richel-Lepree Family Scholarship
Susan Bashe Robertson Memorial Scholarship
Roman Family Scholarship
The Judy Rouse Memorial Scholarship
Rebecca Royal Student Success Scholarship
Dr. John J. Russel Memorial Honors Scholarship
The Sabatino Family Scholarship
Santander First Generation Honors Scholarship
Carol Saunders-Corbin Memorial PN Scholarship
Schering-Plough Foundation Allied Health Scholarship
Susan R. Schrepfer Memorial Scholarship
Ben A. Sciarrillo Memorial Scholarship
Jacqueline Seeland Scholarship
William John Seeland Scholarship
September 11th Memorial Scholarship
C.W. Sharp and T.L. Murphy Scholarship
Dr. Murray Shereshewsky Memorial Scholarship
Taras Shevchenko Scholarship
Dr. Anthony Signorelli Memorial Scholarship
Arthur, Caroline & George Small Memorial Scholarship
Roy W. Smith Memorial Scholarship
Dr. Wallace Smith & Deborah E. Dobbins Scholarship
Southpole Foundation Scholarship
Rosa Bello Spina Memorial Scholarship
SSBH Scholarship
Sophie and Nicholas Stefiuk Scholarship
St. Andrew's Episcopal Church Early Childhood Educator 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
Teachers Transform the Community Scholarship
Vito Todaro & Joseph Bent Scholarship
Mitch Turner Memorial Scholarship
UBS Westfield Scholarship
Union County College Foundation Partnership for the Future Scholarship
Union County College Foundation Scholars – Initial
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
Dean S. Van der Clute Scholarship
Donald and Leona Van Gordon Nursing Scholarship
Madeline M. and Anthony A. Vertelis Scholarship
Wakefern/ShopRite 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 (LAW) Scholarship
Sturgis Wilson Memorial Scholarship
Doris Kiefer Wolf Memorial Scholarship
Professor Elmer Wolf Scholarship
Women 100 Scholarship
Louise Yohalem Scholarship
Yehoshua (Joe) Yosifon & George L. Patchell Scholarship
Young Professionals Committee Scholarship
Zimmermann Family Scholarship
Cynthia Ziolkowski-Angus Memorial Scholarship
Maria & Bruno (Bud) Ziolkowski Scholarship
George P. Zirnite Memorial Scholarship Award
Jack Zissel Memorial Scholarship

Services for Students

Welcome

Upon your arrival at Union College of Union County, NJ (Union 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, and transfer 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:

- 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

To learn more about Advising services, contact us at advising@ucc.edu.

Career Services

We provide career, internship, and employment services to Union College students and alumni. Our staff will gladly assist you in the 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

To learn more about Career Services, contact us at careerservices@ucc.edu.

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

To learn more about Transfer services, contact us at advising@ucc.edu.

Dean of Students

Social Work Services

The Social Workers are here to provide additional support to you. They can make referrals to resources on or off campus based on your needs. Please feel free to ***walk-in*** or ***make an appointment*** if you ever need assistance with things such as our **on-campus food pantry** or interview-ready attire from **the Owl's Boutique.**

Social Workers can also assist if students ever need to be connected to off campus resources such as, but not limited to, Mental Health Services, Rental/Utility Assistance, Emergency Housing, Local Food Pantries, or NJ State Benefits.

Please do not hesitate to contact us socialworkservices@ucc.edu or 908-709-7139. **All meetings are confidential.**

Disability Support Services

In compliance with the New Jersey Law Against Discrimination (NJLAD), Section 503/504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) f 1990, including the recent amendments, reasonable accommodations are provided to address the needs of students with documented disabilities. Disability Support Services is designated to assist students with documented disabilities. The goals are to ensure that each Union College student is provided equal access to the College's academic programs, activities, and awards without discrimination on the basis of a disabling condition. Students who have documented disabilities can receive help with the following:

- Reasonable Academic Accommodations;
- Academic Advisement and Registration Assistance;
- Reasonable Testing Accommodations;
- Sign Language interpreters;
- Referral to Community Resources;
- Assistive Technologies; and
- Linkage to para transit services that provided transportation to and from the College.

Please visit the Disability website for additional information of www.ucc.edu/administration/the-office-for-equal-opportunity/disability-services/

Student Accommodation Requests

All requests for reasonable accommodations from Union College students, pursuant to Section 504 or the ADA, should be directed to:

Karen Cimorelli
Director of Disability Support Services and Veteran Affairs
Student Development Building, Room SD-15
Phone: 908-709-7164
Email: karen.cimorelli@ucc.edu

Academic Support

Libraries

The Union College Libraries support the mission and goals of the College and serve as a core learning resource. Information literacy is a primary emphasis. With locations in Cranford, Elizabeth, and Plainfield, Library services are designed to support students in achieving academic success by developing the abilities to engage with information critically and ethically to become effective life-long learners.

Library collections are in varied formats: print books and periodicals, eBooks, and media (DVD and streaming video). Library holdings total more than 71,000 volumes, 350,000 eBooks, and more than 121,000 streaming video programs. In addition, the libraries' more than 90 subscription databases provide online access to nearly 300,000 full-text journals, newspapers and reference sources. All resources can be accessed on campus or remotely. Online subject guides are created by librarians, and linked from the library home page, to support student research and study. Professional librarians are available for research assistance and information literacy instruction to all four campuses.

The Kenneth Campbell MacKay Library on the Cranford Campus is the College's largest library. The MacKay Library provides reference books, circulating books, and Perkins grant funded resources, including New Jersey Paralegal books. The MacKay Library has an archive of faculty publications and the Ely Stock Memorial Children's collection. The MacKay Library also offers a silent study room, 85-computers in the Information Commons, and 8 study rooms. The MacKay Library has comfortable seating, individual carrels, and study tables for student use.

The Kellogg Library, in the Kellogg Building on the Elizabeth Campus, has 41 computers in the Information Commons and 4 study rooms. Its collections focus on the academic needs of ESL and Nursing students.

The Plainfield Campus Library, located in the Annex Building, has 5 study rooms, 50 computers in the Information Commons, and information resources in support of the Allied Health and Nursing programs.

Currently enrolled students have access and borrowing privileges at all Union College Libraries. An intercampus courier system is available to deliver resources to the campus library of a student's choice. An interlibrary loan service is available for materials not owned by the College's Libraries. All College Libraries also extend secure wireless access. Printers and copiers are available. Copiers can scan as well as print in color or black/white.

For more information see the Union College Libraries website https://libguides.ucc.edu/LibraryHome

Academic Learning Centers

The Academic Learning Centers (ALCs) are certified by the College Reading and Learning Association, an international organization that oversees tutorial centers. The ALCs provide free tutoring for all currently enrolled Union College students and delivers learning opportunities and web-enhanced instruction which focus sharply on student engagement. Students are encouraged to take advantage of the ALCs' services whenever they need assistance. The Academic Learning Centers are conveniently located in Cranford, on the first floor of the MacKay Building; in Elizabeth, on the first floor of the Kellogg Building; and in Plainfield, on the main level of the Annex building.

Tutoring is delivered primarily by peer tutors, students recommended by their instructors who 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 and time management. In addition, the ALCs offer online tutoring for selected courses through synchronous live chat and asynchronous environments via a web-based service. Appointments are required for online tutoring; you can find more information on how to make an appointment on the ALC Tutoring Shell on Canvas.

Another important component of the ALCs' 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 Canvas LMS training for students, reading comprehension, test-taking skills, 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 anatomical models, microscopes, and slides. Furthermore, Collaborative Learning Sessions (CLS) and Conversation Groups, which are facilitated by experienced tutors, are offered to students enrolled in selected courses. 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 offer students access to Windows computers and printers, and 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 Office products and receive help with navigating Canvas, Cengage Unlimited, Lock Down Browser, and Self-Service.

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

For information about the ALCs' hours of operation, tutoring schedules, and online resources, please visit the ALC Tutoring Canvas shell.

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 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 services and support for both academic and administrative office applications. A fiber optic backbone interconnects all campuses and wired and wireless network connections are available via a high-speed internet connection. All networks and resources are redundant and secure, ensuring users have reliable access to the internet and all core services.

Students have access to computers in classrooms, libraries, and Academic Learning Centers throughout the college. These computers allow access to academic software to support course curriculum as well as the Microsoft Office Suite. 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, such as web-based databases and the electronic catalog, are available from any computer with Internet access. Students are also provided with a college email account, which includes access to Microsoft Office 365 and personal cloud storage. Multifactor authentication is also available to keep accounts and information secure. With access to course related applications, as well as computers, printers and wireless internet throughout the College, technology is available to support all programs of study.

IT services also include a Virtual Desktop Infrastructure (VDI), which allows access to a college computer desktop and software from virtually any device. The VDI environment provides remote access to specialized software that would normally only be available while on a computer on campus. Students can access a powerful VDI desktop from almost any device and have the same experience as if sitting at a computer at the college.

The IT Helpdesk is the main point of contact for all technology needs. With offices on each campus, as well as 24x7 call and email support, your technology issues can be addressed in a number of ways. The IT ticketing system ensures that each case is handled in an efficient manner and can be easily escalated when required. The Helpdesk provides support for a variety of issues, including account problems, password resets, network/wireless access, and hardware/software support. The Helpdesk can be reached by emailing techsupport@ucc.edu or by calling 908-709-7979 for the Cranford Campus, 908-412-3567 for the Plainfield campus, 908-965-2355 for the Elizabeth Kellogg building, and 908-965-2349 for the Elizabeth Lessner building. Technical support resources and information can also be found by visiting www.ucc.edu/techsupport.

We always strive to provide reliable and secure IT services for our students, faculty, and staff to support the mission of the College.

Air Force/Army ROTC

Union College, Rutgers - The State University of New Jersey, and Seton Hall University have an agreement permitting male and female students of Union 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 ensure 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 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 College of Union County, NJ. 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 at the time of registration may enroll at Union College without the payment of any tuition charges in regularly

scheduled courses provided that classroom space is available.
- The Senior Citizens Waiver covers tuition only. Students are responsible for payment of all other charges at the time of registration.
- Students may register on the first day of the semester. Students who register prior to the designated date CANNOT apply the Senior Citizens Waiver towards the cost of such courses.

Trade Act Program

- The Trade Adjustment Assistance (TAA) Program is a federal program established under the Trade Adjustment Assistance Reauthorization Act of 2015 that provides aid to workers who lose their jobs or whose hours of work and wages are reduced as a result of increased import.
- Attendance at Union 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 College Finance Department.
- Students participating in this program may register at any time.

Unemployment Waiver

- 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 the semester. Students who register prior to the designated date CANNOT 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 (i.e. Certificate of Inability to Admit).

Internal Revenue Service Form 1098-T

- For each calendar year, the College issues IRS Form 1098-T to qualified students. Forms are mailed to students by January 31 of the following year.
- The 1098-T contains information to assist students to determine if they qualify for educational tax credits or deductions. For details on these credits/deductions or how to use the amounts listed on your form, consult either a qualified tax preparer or the IRS website: www.irs.gov
- The information on the form complies with IRS regulations. Amounts are reported in the calendar year in which the 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 the semester.
- Students who register for courses prior to the designated date CANNOT apply the Chapter 145 waiver towards the cost of such courses.

Workforce NJ Development Program

- Students utilizing this program should plan on registering well in advance of the start of the semester to ensure 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 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/campussafety/#/. 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. To confirm your emergency contact information, please navigate to the Rave Emergency Alert portal or my.ucc.edu and select the Rave Emergency Alert System tile.

Parking & Automobile Registration

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

Academic Policies

Welcome

The faculty and staff at Union College of Union County, New Jersey (Union 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 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 designee.

Extracurricular Activities - While on probation, students are restricted from holding any office in any organization or participating in any 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 the faculty member's subject, but should be careful not to introduce into the teaching controversial matter which has no relation to the faculty member's 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 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:

1. Copying from another person's test, electronic device, or paper.
2. Permitting another to copy from a test or paper.
3. Using crib notes or any instrument not authorized by the instructor.
4. Concealing notes on parts of the body, desk, or other object.
5. Using cell phones or texting during examinations.
6. Claiming authorship of work that is not your own.
7. Buying or selling quizzes, exams or term papers for the purpose of academic evaluation.
8. Theft of examinations.

Permitting another to:

1. Take an examination in your place.
2. Complete take-home examinations or other assignments.

3. Complete work for the purpose of academic evaluation in online courses.

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

1. Representing someone else's ideas as your own without crediting your source.
2. 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.
3. Paraphrasing another's work without proper attribution.
4. Submitting deliberately misleading attributions or acknowledgments.
5. Submitting a purchased term paper, or another person's work as one's own.
6. 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 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) /International Baccalaureate (IB) Credit

Advanced Placement (AP) Credit

Union College awards transfer credit to students who have taken Advanced Placement courses and have achieved a score of 4 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.

International Baccalaureate (IB) Credit

Union College awards transfer credit to students who have taken International Baccalaureate courses and earned a score of 4 or higher on specified IB Exams. Most subjects may be taken at either standard level (SL) or higher level (HL). Transfer credits earned by way of IB count toward the maximum number allowed toward a certificate or degree program.

Students are responsible for having their official AP and/or IB scores sent to Union for evaluation.

For additional information on AP/IB transfer credit, visit https://www.ucc.edu/admissions/

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 the 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 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 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, they complete the Request for Challenge Examination form and makes payment for the exam. The completed form and payment receipt are then brought to the Division Dean so that the time and date of the examination can be determined. The required fees for challenge examinations

will be based upon 50 percent of the current course tuition. Students will be furnished general exam requirements. Challenge exams are not offered for all courses.

College Level Examinations (CLEP)

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

Union 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 https://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 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 failed course.

Union College administers CLEP tests to its students, in the Testing Center on the Cranford campus. If you are a Union College student, please go to 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 for a current schedule.

College Credits Assigned to Instructional Mode

In awarding credit hours, Union College conforms to state and federal definitions, as well as any policies set forth by the Middle States Commission on Higher Education. Union 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.

Lecture

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.

Laboratory

	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
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 substitution 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 a 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 performance in all courses expressed in terms of the "academic average" achieved. 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 Self-Service 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 the course 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 Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging, Trinitas School of Nursing/RWJ Barnabas Health, or Rutgers SHRP must consult with the program advisor.

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

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

All degree or certificate recipients are eligible to participate in commencement exercises for the academic year. There are two commencement ceremonies 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 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 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 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 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 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 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 College can use all of the certificate program credits that are applicable toward a degree. Student seeking a second degree at Union College can use half of their degree program credits toward a second degree program at Union College. Students can transfer up to 35 credits from the first associate's degree to the Advanced and Continuous Studies, A.A.S. degree program.

Union College Transcript

Requests for Union College transcripts can be made by visiting the College website at https://www.ucc.edu/admissions/online-transcript-request/, or by visiting the National Student Clearinghouse at www.nationalstudentclearinghouse.org. 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 College welcomes applicants transferring in from other institutions. Courses transferred must be from accredited colleges and/or universities. Students transferring to Union College must complete a minimum of 24 credits of their degree program at Union 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 College must complete the College application process, and have official transcripts mailed to Union 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 Self-Service. 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 students change their program at any time, they must request to have their transcript re-evaluated. The transfer credits previously awarded may not apply to the 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 College. Each program has designated credits which will be granted - Police Academy up to 17 credits, Fire Academy up to 15 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 https://www.ucc.edu/academics/academic-calendar/.

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 & Continuing Education

Welcome

Welcome to Union College Continuing Education and Workforce Development Programs! Our offerings include exciting continuing education, business solutions, professional development and personal enrichment programs. Whether you are exploring a new career, improving your workplace skills or looking to learn something new, Union College has the program for you. Workforce development grant opportunities are also available. Classes are scheduled at times convenient for you – daytime, evenings and online. Programming includes youth programs, art, business, computers and technology, fitness, healthcare, languages and science.

Continuing Education

The Department provides professional development and personal enrichment opportunities for individuals who live or work in Union County and beyond. Senior Scholar program offerings are available for residents of Union County ages 60+ through the Union County Board of County Commissioners Senior Scholars program.

Committed to the concept of lifelong learning, the Department conveniently schedules non-credit courses in the evenings, weekends, and daytime hours. Programs are offered in-person, hybrid and remote live formats and are held at multiple campuses. In addition, courses are offered on-line through our partnership with Ed2Go at www.ed2go.com/ucc/ and https://careertraining.ed2go.com/ucc/ and UGotClass http://www.yougotclass.org/index.cfm/Ucc.

Currently, among the Continuing Education Department offerings are non-credit certificate programs in Real Estate Sales, Google Certificates in IT Support, Data Analytics and Project Management, Certified Pharmacy Technician, Child Development Associate (CDA) Credential, Human Resource Management as a university partner with American Management Association (AMA), NJ Uniform Construction Code, and Medical Coding Specialist. Industry-recognized certificate programs are also available for Certified Bookkeeper, CISCO Certified Networking Associate (CCNA), Project Management Professional (PMP) Certification, Personal Trainer National Certification, Patient Care Technician, Certified Phlebotomy Technician, Certified EKG Technician, CompTIA A+ Core 1 - Hardware and Core 2 - Software and Network + Certification, Facility Management Professional, and Supply Chain Management (CSCMP) Certification.

Continuing Education also operates as a Cisco Networking Academy in Plainfield. We provide extensive preparation for the CISCO Certified Networking Associate (CCNA) designation.

For further information, email, or call the Continuing Education Department at Union College at coned@ucc.edu or (908) 709-7600.

Industry-Business Institute

The Industry-Business Institute (IBI) at Union 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, on-campus or remote live, and scheduled at times that will fit office or production schedules. Training is available on a fee-for-service basis and through local and state grant opportunities. IBI provides many types of workforce development programs due to our wide network of industry professionals and instructors. Topics include, but not are limited to:

- Leadership Skills
- Customer Service
- MS Office Computer Skills
- Management, Team Building, Problem Solving and Supervisory Skills
- Communication and Personal Effectiveness Skills
- Workplace Literacy/Basic Skills
- Safety Procedures
- Supply Chain Management/Transportation, Logistics, and Distribution
- Time Management
- Conflict Resolution
- Cultural Diversity and Harassment Prevention Awareness
- English as a Second Language
- and more…

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

Center for Economic and Workforce Development

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

The Center offers a wide variety of programs and courses to over 1,000 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 Union 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-are computer labs and offer full service operations to all CEWD students.

CEWD offers the following programs:

- **ABLE PLUS GRANT:** This WIOA Title II program offers career pathway ESL, Integrated ESL and Civics Education, Adult Basic Skills development and High School Diploma (HSD) preparation to eligible residents. These educational programs are funded through the New Jersey Department of Labor and Workforce Development.
- **WorkFirst New Jersey "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:** The Center 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 advance to the IIE Level 3 credit program.
- **Occupational Training:** The Center provides occupational training programs that lead to industry credentials for in-demand occupations such as:
    - Administrative Assistant
    - Accounting Technician / Customer Service for Finance Operations
    - Patient Care Technician
    - Certified Medical Assistant
    - Essentials of Supply Chain Management

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

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 collaborate with local employers to identify qualified candidates and 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' participants 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, an American Job Center Affiliate Career Services Center, through the Union County Workforce Development Board.

Special Programs and Services

Union College of Union County, NJ (Union College) provides academic support programs and services for student success.

American Honors

American Honors is a program for high-achieving, academically motivated students looking to attend and graduate from Union College, and then transfer to a four-year university. Students in this program enroll in a Union degree program and take honors courses to fulfill their general education and program requirements. Honors classes are limited to 20 students and are taught by dedicated and high-quality faculty who emphasize critical thinking, analytical writing, and effective communication. Students who take these classes are exceptionally well-prepared for transfer to four-year colleges and universities, for scholarships, and for success at their transfer institutions.

American Honors students receive intrusive advising and wrap-around professional support to ensure their success in the classroom and in the Union College community. Students in the American Honors program are engaged with a community of scholars. They collaborate daily with similarly focused peers in the Honors Lounge, at American Honors events, and on projects in and out of the classroom. American Honors students serve as leaders of on-campus organizations, like the Academic Learning Center, Phi Theta Kappa, and the Student Government Association. They frequently take advantage of research opportunities with faculty and staff. This engagement helps students build strong resumes and competitive applications when they apply to transfer institutions.

Students who join American Honors have a history of taking Honors and Advanced Placement (AP) classes in high school. They are often actively engaged in their school and/or local community. Many students are also members of NJ Stars and as a result, have their tuition covered. American Honors students pay the same tuition rate as all Union students. Applicants to the program should have a minimum cumulative 3.25-grade point average (GPA) on a 4.0 scale, possess a high school diploma (or equivalent), and plan to enroll full-time in a transferable degree.

For more information, visit www.ucc.edu/honors or contact an American Honors Admissions Officer at 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.

The Educational Opportunity Fund Program

The Educational Opportunity Fund (EOF) Program is a comprehensive student support service program that offers financial and academic assistance to eligible Union College students. The program's purpose is to help EOF scholars achieve their maximum potential and persist through graduation.

The EOF Program offers a wide range of benefits and services including:

- An additional financial aid grant of up to $800 per semester
- Free pre-college summer programs for incoming freshmen
- Registration, career, transfer, and financial aid advisement from a personal EOF Advisor
- Leadership activities and workshops
- Academic support through tutoring and supplemental instruction
- Internship opportunities
- Opportunity to join the Chi Alpha Epsilon National Honor Society

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

- Be a New Jersey resident for at least one year prior to applying
- Meet the financial eligibility criteria set by the Office of the Secretary of Higher Education in the State of New Jersey (www.state.nj.us/highereducation/EOF/EOF_Eligibility.shtml)
- Be a full-time student (minimum 12 credits) for the semester applying
- Complete the Free Application for Federal Student Aid (FAFSA) or the New Jersey Alternative Financial Aid Application

Students interested in the EOF program must complete an EOF application which can be accessed by visiting www.ucc.edu/apply2EOF.

To learn more about the EOF Program, contact us at (908) 709-7088 or email us at 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, Technology, 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 College. All students who have earned 12 transferable credits at Union 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 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

Developmental courses are available to help students build reading, writing, and/or mathematics skills, if needed, before enrolling in college-level English composition or math courses. Students are strongly encouraged to stay in close contact with an advisor. Advisors can help students to stay focused on academic success and timely completion of the required courses for the major. Students may contact an advisor or the appropriate Division Dean for more information.

Mathematics
Prior to registration, students should complete a Mathematics Directed Self-Placement (DSP) Questionnaire to determine their recommended math course.

Students who are enrolled in programs that do not require calculus have the option of registering for college-level math (MAT 125 or MAT 127) or developmental level math (MAT 017). The Mathematics Directed Self-Placement Questionnaire and an academic advisor will help students determine the recommended math course.

Students who are enrolled in programs that require calculus have the option of registering for college level math (MAT 119, MAT 143, MAT 155, or MAT 171) or developmental math (MAT 019). The Mathematics Directed Self-Placement Questionnaire and an academic advisor will help students determine the recommended math course.

Please visit https://www.ucc.edu/campus-life/student-services/testing/ for additional information.

Reading and Writing
Students will complete a Directed Self-Placement questionnaire to determine their English course placement prior to registration. At the start of each developmental English course, students will complete a writing sample. The work will be evaluated and, if appropriate, the student will be placed directly into a higher-level course. Students may contact the Humanities Division Office for more information.

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

	Developmental Mathematics	English as a Second Language
1	MAT 017* MAT 019**	ESL 067 and ESL 068
2	MAT 021	
3	Credit Mathematics	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 .

	Developmental Reading	Developmental Writing	Developmental Reading and Writing
1	ENG 081 with ENG 101	ENG 091 with ENG 101	ENG 096
2			ENG 097
3			ENG 101

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 ESL placement

Level 4 Students:
Mathematics courses with special permission only and based on major or ESL placement, FIA 109- Introduction to Drawing, FIA 110- Introduction to Painting

Level 5 Students:
AUT 100- Automotive Fundamentals, BSM 101- Introduction to Sport Management, 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 from the IIE director

Level 6 Students:
ALH 161- Medical Terminology, AUT 101- Steering/Suspension Systems, BSM 110- The Evolution of American Sports, BUS 105- Organization and Management, BUS 110- Business and Technology, COM 100- Communications Technologies, CRJ 101- Introduction to Criminal Justice, CST 161- Computer Programming Fundamentals, EMT 100- Cardiopulmonary Resuscitation, FST 105- Fire Prevention, HSM 110- Food and Beverage Management, LIS 105- Methods in Library Research, PSY 101- General Psychology, SOC 101- Principles of Sociology, SCM 101- Introduction to Supply Chain Management, and other courses with permission from the IIE director.

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

For students seeking to enroll in ESL Level 1 and 2, please contact the Center for Economic and Workforce Development at coned@ucc.edu or (908) 709-7600. ESL Level 1 and Level 2 are beginning levels of English as a Second Language (ESL) that 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.

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(s) - All ESL students who have completed the Institute for Intensive English program are exempt from the Modern Language requirement for programs leading to an Associate of Arts degree. 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. 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.

Online Learning

Online Learning at Union College provides an educational experience that is equivalent to traditional courses. Online courses cover the same course subject matter, carry the same credits, and are taught by highly qualified Union 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?

- Students in the workforce
- 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:

- Accounting, AAS
- Blockchain Technology, AAS
- Blockchain Technology, Certificate of Achievement
- Business, AA
- Business Fundamentals, Certificate of Achievement
- Business Management, AAS
- Business Marketing, AAS
- Communications, AA
- Computer Information Systems & Technology, AS
- Criminal Justice, AS
- Criminal Justice, Certificate
- Educational Interpreter Program (EIP), Certificate of Achievement
- Health Information Technology, AAS
- Health Science, AS
- History, AA
- Homeland Security, Certificate of Achievement
- Liberal Arts, AA
- Liberal Studies, AS
- Liberal Studies, Certificate
- Psychology, AA
- Public Administration, AA
- Social Services, AS
- Sociology, AA
- Supply Chain Management, AS
- Supply Chain Management, Certificate of Achievement

Online Courses (asynchronous):

- 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 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 Learning Resources, (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 Learning Resources located in the MacKay Building, Room L-205 on the Cranford Campus, by phone at 908-497-4364, or by email at ucconline@ucc.edu.

Dual Admissions & Transfer/Articulation Agreements

Dual Admissions Agreements

Alumni of Union College of Union County, NJ (Union 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 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 College students who enroll in the joint admissions program with Union 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.

Delaware State University
Union College students who enroll in the joint admissions program with Union 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 College students who enroll in the joint admissions program with Union 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 College students who enroll in the joint admission program with Union 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 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 College and fulfill the criteria of the joint admissions program.

Kean University
Union College students who enroll in the joint admissions program with Kean University will be granted admissions as juniors in the agreed upon undergraduate program, provided they have met the applicable admission requirements of Kean University and the minimum GPA at all post-secondary institutions attended.

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

Students enrolled at Union College fall 2019 or after pursuing an AA degree in Education (Grades 4-12) or Early Childhood Elementary Education (Grades PreK-3) will be eligible to pursue automatic transfer to Montclair State University upon completion of the Associate's degree (AA). Students will be considered to be dually enrolled at both institutions provided Montclair State University admissions criteria are met at time of degree attainment from Union.

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 College. Application must be made to Rutgers University. Once admitted, students follow a Recommended Transfer Program (RTP). To determine the equivalency between Union College courses and Rutgers courses visit NJ Transfer (www.njtransfer.org). Successful completion of an Associate Degree at Union will guarantee admission to Rutgers as a third-year student, provided that an overall cumulative grade point average of at least 3.00 has been achieved in the RTP.

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

Saint Elizabeth University
Saint Elizabeth University will reserve a place for Union 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 College and fulfill the criteria of the joint admissions program.

Transfer/Articulation Agreements

A vital part of Union 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 College, Daytona Beach, FL
- Binghamton University-State University of NY, 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 Saint Vincent, Riverdale, NY
- Delaware State University, Dover, DE
- Delaware Valley College, Doylestown, PA
- Dickinson College, Carlisle, PA
- Fairleigh Dickinson University, College at Florham, Madison, NJ; Metropolitan Campus, Teaneck, NJ (See information on dual admissions)
- Felician University, Rutherford, NJ
- 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
- New Jersey Institute of Technology, Newark, 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)
- Rutgers - The State University of New Jersey, Newark, NJ
- Sacred Heart University, Fairfield, Connecticut
- Saint Elizabeth University, Convent Station, NJ (See information on dual admissions)
- 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, State University of New York, Syracuse, NY
- Thomas Edison State University, Trenton, NJ
- Tuskegee University, Tuskegee, AL
- University of Phoenix, Phoenix, AZ
- University of Pittsburgh at Bradford, Bradford, PA
- University of Vermont, Burlington, VT
- Western Governors University, Salt Lake City, UT
- Western New England University, Springfield, MA
- Widener University, Chester, PA
- Wilberforce University, Wilberforce, OH
- William Paterson University, Wayne, NJ

*Contact Union College for the most current information.

Programs of Study

Union College of Union County, NJ 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.

A **matriculated student** enrolls in the college to pursue study toward 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.

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.

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. More information is available at https://www.ucc.edu/campus-life/academicmaps/

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

Degree Information

Associate in Arts – A.A.

The Associate in Arts degree (A.A.) is an undergraduate academic degree awarded by Union 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 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 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 Snyder Schools
- Nursing, Trinitas School of Nursing/RWJBarnabas Health
- Psychosocial Rehabilitation and Treatment
- Radiography, JFK Muhlenberg Harold B. and Dorothy Snyder Schools
- Sonography, Diagnostic Medical, JFK Muhlenberg Harold B. and Dorothy 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 Professor Elmer Wolf 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
- Environmental Science - Sustainability, option offered through Biology
- eSports Management, option offered through Sport Management
- Health Science
- Liberal Studies
- Mathematics
- Mathematics Education, option offered through Mathematics
- Medicinal Plant Chemistry, option offered through Biology
- Paralegal Studies
- Social Services
- Sport Management
- Supply Chain Management
- Web and Mobile Application Development

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
- Advanced and Continuous Studies
- Automotive Technology
- Blockchain Technology
- Business Management
- Business Marketing
- Cyber Forensics
- Drone Design and Applications
- Engineering Technology
- Fire Science Technology
- Game Design and Development
- Health Information Technology
- 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
- Criminal Justice
- Emergency Medical Studies
- Entertainment Technology
- Graphic Design
- Interpreting Spoken Language
- Journalism and Public Relations
- 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.

- Blockchain Technology
- Business Fundamentals
- CAD-CAM
- Educational Interpreter Program (EIP)
- Emergency Medical Studies
- eSports Management
- Homeland Security
- Hotel, Restaurant, and Tourism Management
- Paralegal Studies
- Supply Chain Management

Course Substitutions & Waivers

While the course requirements specified in the following curriculum descriptions are normally required, students may request to waive or substitute courses which are available infrequently. Students wishing to do so should see the appropriate 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, A.A.S.
- Advanced and Continuous Studies, A.A.S.
- American Sign Language and Deaf Studies, A.S.
- American Sign Language and Deaf Studies, CT.
- Architecture, A.S.
- Automotive Technology, A.A.S.
- Biology, A.S.
- Blockchain Technology, A.A.S.
- Blockchain Technology, CT.A.
- Business, A.A.
- Business Fundamentals, CT.A.
- Business Management, A.A.S.
- Business Marketing, A.A.S.
- CAD-CAM, CT.A.
- Chemistry, A.S.
- Communications, A.A.
- Computer Information Systems & Technology, A.S.
- Computer Science, A.S.
- Computer Science/Engineering, A.S.
- Criminal Justice, A.S.
- Criminal Justice, CT.
- Cyber Forensics, A.A.S.
- Cybersecurity, A.S.
- Drone Design and Applications, A.A.S.
- Early Childhood Elementary Education, Suggested Grades Pre-K-3, A.A.
- Education, Suggested Grades 4-12, A.A.
- Educational Interpreter Program (EIP), CT.A.
- Emergency Medical Studies, CT.
- Emergency Medical Studies, CT.A.
- Engineering, A.S.
- Engineering Technology, A.A.S.
- English, A.A.
- Entertainment Technology, CT.
- Environmental Science - Sustainability, A.S.
- eSports Management, A.S.
- eSports Management, CT.A.
- Fire Science Technology, A.A.S.
- Game Design and Development, A.A.S.
- Graphic Design, A.A.
- Graphic Design, CT.
- Health Information Technology, A.A.S.
- Health Science, A.S.
- History, A.A.
- Homeland Security, CT.A.
- Hotel, Restaurant, and Tourism Management, A.A.S.
- Hotel, Restaurant, and Tourism Management, CT.A.
- Interpreting Spoken Language, CT.
- Journalism and Public Relations, A.A.
- Journalism and Public Relations, CT.
- Liberal Arts, A.A.
- Liberal Studies, A.S.
- Liberal Studies, CT.
- Mathematics, A.S.
- Mathematics Major Education Option, A.S.
- Media, A.A.
- Medicinal Plant Chemistry, A.S.
- Cooperative Programs in Professional Nursing, A.S.
- Nursing, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging, A.S.
- Nursing, Trinitas School of Nursing/RWJ Barnabas Health, A.S.
- Paralegal Studies, A.S.
- Paralegal Studies, CT.A.
- Paramedic Emergency Health Science, A.A.S.
- Photovoltaic (PV), CT.
- Physical Therapist Assistant, A.A.S.
- Practical Nursing, CT.
- Psychology, A.A.
- Psychosocial Rehabilitation and Treatment, A.S.
- Public Administration, A.A.
- Radiography, A.S.
- Remote Pilot and Drone Application, CT.
- Respiratory Care, A.A.S
- Social Services, A.S.
- Sociology, A.A.
- Diagnostic Medical Sonography, A.S.
- Sport Management, A.S.
- Supply Chain Management, A.S.
- Supply Chain Management, CT.A.
- Technical Studies, A.A.S.
- Theater Arts, A.A.
- Visual Arts, A.A.
- Web and Mobile Application Development, A.S.

General Education Requirements for All Programs

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 33 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:

General Education Requirements by Degree				
Course Categories	**AA credits**	**AS credits**	**AAS, AS Nursing credits**	**Certificate credits**
Communication (Written and Oral Communication)	9	6	6	3
Mathematics – Science – Technology **Mathematics** 3-8 cr. (Quant. Knowledge & Skills) **Science** 3-8 cr. (Sci. Knowledge & Reasoning) **Technology** 0-4 cr. (Technology)	6	9	3	3
Social Science (Society and Human Behavior)	6	3	3	
Humanities (Humanistic Perspective)	6	3		
History (Historical Perspective)	3			
Diversity Courses (Global & Cultural Awareness)	3			
Unassigned General Education		6	8	
General Education Total	33	30	20	6

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.

General Education Categories

COMMUNICATION COURSES

ENG 101 - English Composition I
ENG 102 - English Composition II
ENG 112 - English Composition for Speakers of Other Languages
ENG 122 - Introductory Technical and Business Writing (for A.A.S. degrees only)
ENG 128 - The Dynamics of Communication
ENG 129 - Public Speaking

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 College believe 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:

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
ENG 228 - African American Literature II
ENG 231 - Latinx Literature Studies
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 Sem. in 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

COM 109 - Introduction to Film Study
FIA 105 - Music Appreciation
FIA 108 - Appreciation of Art
FIA 111 - Art History Survey I
FIA 112 - Art History Survey II
FIA 117 - Survey of Music in the Twentieth Century
FIA 124 - Theater Appreciation
FIA 132 - Introduction to Dramatic Literature
FIA 220 - Introduction to History of Photography
FIA 232 - Modern and Contemporary Dramatic Literature
HRS 104 - Honors Seminar in Interdisciplinary Study
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
ENG 315 - Advanced Writing for Social Sciences

ALL HISTORY COURSES LISTED ABOVE

ENGLISH 200-LEVEL LITERATURE

ENG 205 - British Literature I
ENG 206 - British Literature II
ENG 207 - American Literature I
ENG 208 - American Literature II
ENG 209 - World Literature I
ENG 210 - World Literature II
ENG 216 - Contemporary Literature
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

MODERN LANGUAGE

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
FRE 101 - Beginning French I
FRE 102 - Beginning French II
FRE 111 - Intermediate French I
FRE 112 - Intermediate French II
FRE 121 - Advanced French I
FRE 122 - Advanced French II
GER 101 - Beginning German I
GER 102 - Beginning German II
ITA 101 - Beginning Italian I
ITA 102 - Beginning Italian II
ITA 111 - Intermediate Italian I
ITA 112 - Intermediate Italian II
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

MATH, 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 Mathematical Analysis I
MAT 144 - Elementary Mathematical 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

LAB 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 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 107 - The Chemistry of Forensic Science
CHE 111 - General Chemistry I
CHE 112 - General Chemistry II
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 - Introduction to Meteorology
PHY 101 - General Physics I **AND PHYL 111** - Mechanics Laboratory
PHY 102 - General Physics II **AND PHYL 102** - General Physics II Laboratory
PHY 111 - Mechanics **AND PHYL 111** - Mechanics Laboratory
PHY 125 - Elements of Physics **AND PHYL 125** - Elements of Physics Laboratory
PHY 201 - Electricity and Magnetism **AND PHYL 201** - Electricity and Magnetism Laboratory

TECHNOLOGY

COM 100 - Communications Technologies
CST 100 - Introduction to Computer Applications
CST 101 - Introduction to Information Systems
CST 115 - Introduction to Computer Programming
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 102 - Social Problems
SOC 273 - Marriage and the Family

Programs of Study

Accounting, A.A.S.

Program Description

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:

- Demonstrate the underlying theoretical and ethical framework of accounting concepts in business practice;
- Evaluate the managerial application of accounting data and its intended impact;
- Examine the governing principles of the practice of accounting;
- Communicate effectively in a business setting through written, verbal and electronic formats;
- Analyze the effect of globalization, and personal and cultural development on the practice of accounting;
- Prepare a set of complete financial books and supportive records utilizing critical thinking skills and appropriate software and accounting principles;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Accounting.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 119 - Algebra 4 credit hours**
- **ACC 103 - Accounting I 3 credit hours**
- BUS 105 - Organization and Management 3 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours

Semester Total: 16

Spring Semester

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

Semester Total: 13

Second Year

Fall Semester

- Humanities Gen Ed Requirement - 3 credit hours (Must be chosen from Literature, Fine Arts, History, OR Modern Language)
- **ACC 203 - Intermediate Accounting I 3 credit hours**
- ACC 210 - Microcomputers in Accounting 3 credit hours
- ACC 211 - Federal Taxes I 3 credit hours
- BUS 201 - Business Law I 3 credit hours

Semester Total: 15

Spring Semester

- ACC 204 - Intermediate Accounting II 3 credit hours
- ACC 205 - Cost Accounting 4 credit hours
- ACC 212 - Federal Taxes II 3 credit hours
- ACC 290 - Co-op Education Experience in Accounting 3 credit hours
- BUS 202 - Business Law II 3 credit hours

Semester Total: 16

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Advanced and Continuous Studies, A.A.S.

Program Description

Students in this second-degree program will pursue advanced credits in the chosen discipline to later be transferred towards a baccalaureate degree at a partner college or university.

After completing their first associate degree in the chosen discipline, students will enroll in the Advanced and Continuous Studies degree. This degree will be comprised of already-earned credits for the first associate degree plus upper-level credits for the students' fifth and sixth semesters of a 3+1 program.

Students are required to meet with an advisor prior to matriculating in this program.

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

- Identify major concepts and current trends in the discipline;
- Discuss the ethical responsibilities in the workplace;
- Communicate effectively in writing, verbal and electronic formats;
- Employ critical thinking skills based on research and decision making appropriate to the discipline and academic level;
- Demonstrate information literacy through familiarity and the effective use of technical information resources;
- Evaluate the various issues related to diversity, equity, and inclusion across academic disciplines.

After Union College

Graduates may transfer to Berkeley College or another four-year college or university to continue the 3+1 bachelor's degree plan.

Recommended Sequence

Previously Earned Credits*

General Education Courses*: 20 Credits

- Communications General Education Requirement - 6 credit hours
- Math, Science, Technology General Education Requirement - 3 credit hours
- Social Science or Humanities General Education Requirement - 3 credit hours
- Unassigned General Education Requirement - 8 credit hours
- Electives*: 12 credits

Total Credits*: 32

*Credits earned previously in the first Union College associate's degree.

Fall Semester

- Liberal Arts Electives^* (1, 2, and 3) - 10 credit hours
- Electives^** (1 and 2) - 6 credit hours

Semester Total: 16

Spring Semester

- ENG 315 - Advanced Writing for Social Sciences - 3 credit hours
- Liberal Arts Electives^* (4 and 5) - 6 credit hours
- Elective^** (3) - 3 credit hours

Semester Total: 12

Total Program Credits: 60

^* Liberal Arts Electives

Liberal Arts elective courses are based on the program discipline at the four-year partner institution. Complete the Liberal Arts Electives for the chosen discipline as outlined in the above recommended semester sequence.

Criminal Justice

^*Liberal Arts Electives - Criminal Justice

1. Math, Science, Tech Gen Ed - Requirement - 4 credit hours
2. ENG 102 - English Composition II - 3 credit hours
3. SPA 101 - Beginning Spanish I - 3 credit hours
4. English 200-Level Literature Gen Ed - 3 credit hours
5. PSY 208 - Abnormal Psychology - 3 credit hours

Business Management

^*Liberal Arts Electives - Business Management

1. MAT 127 - Elementary Statistics - 4 credit hours
2. ENG 102 - English Composition II - 3 credit hours
3. PHI 210 - Ethics - 3 credit hours
4. English 200-Level Literature Gen Ed - 3 credit hours
5. PSY or SOC Gen Ed Requirement - 3 credit hours

^**Electives

Elective courses are based on the program discipline at the four-year partner institution. Complete the electives for the chosen discipline as outlined in the above recommended semester sequence.

Criminal Justice

^Electives - Criminal Justice**

1. CRJ 314 - Introduction to Intelligence - 3 credit hours
2. Free Elective - 3 credit hours
3. CRJ 315 - Terrorism and Counter-Terrorism - 3 credit hours

Business Management

^Electives - Business Management**

1. BUS 215 - Excel for Business - 3 credit hours
2. BUS 209 - Introduction to Global Business - 3 credit hours
3. BUS 346 - Developing Managerial Competence - 3 credit hours

American Sign Language and Deaf Studies, A.S.

Program Description

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;
- Demonstrate knowledge of factors that impact diversity, equity, and inclusive practices in Deaf education.

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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- **ASL 101 - American Sign Language I 3 credit hours**
- ASL 102 - Visual-Gestural Communication 2 credit hours

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- SOC 102 - Social Problems 3 credit hours
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
- **ASL 103 - American Sign Language II 3 credit hours**
- ASL 104 - ASL Classifiers 2 credit hours
- HUD 104 - Fingerspelling 1 credit hour

Semester Total: 16

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
- Lab Science Gen Ed Requirement - 4 credit hours
- **ASL 200 - Academic American Sign Language 3 credit hours**
- ASL 201 - American Sign Language III 3 credit hours
- ASL 205 - Linguistics of American Sign Language 1 credit hour

Semester Total: 14

Spring Semester

- ASL 202 - American Sign Language IV 3 credit hours
- ASL 208 - American Deaf Culture and History 3 credit hours
- ASL 210 - American Sign Language and Deaf Literature 3 credit hours
- Humanities Gen Ed Requirement - 3 credit hours
- COM 100 - Communications Technologies 4 credit hours

Semester Total: 16

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

American Sign Language and Deaf Studies, CT.

Program Description

The American Sign Language and Deaf Studies Certificate 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 Certificate 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 & Deaf Studies program. Students must maintain grades of 'B' or higher to stay in the program. A grade of 'C' necessitates a conference with the instructor(s) for consultation. A 'C' in more than one of the courses disqualifies the student from continuing in the program unless there were extenuating circumstances. A grade of 'D' or 'F' disqualifies the student from entry into or continuation of ASL & 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 205, Plainfield Campus) or the Advising Office at the Plainfield or Cranford campuses.

After Union College

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

Recommended Sequence

First Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
- **ASL 101 - American Sign Language I 3 credit hours**
- ASL 102 - Visual-Gestural Communication 2 credit hours

Semester Total: 8

Spring Semester

- Humanities Gen Ed Requirement - 3 credit hours
- **ASL 103 - American Sign Language II 3 credit hours**
- ASL 104 - ASL Classifiers 2 credit hours
- HUD 104 - Fingerspelling 1 credit hour

Semester Total: 9

Second Year

Fall Semester

- **ASL 200 - Academic American Sign Language 3 credit hours**
- ASL 201 - American Sign Language III 3 credit hours
- ASL 205 - Linguistics of American Sign Language 1 credit hour

Semester Total: 7

Spring Semester

- ASL 202 - American Sign Language IV 3 credit hours
- ASL 208 - American Deaf Culture and History 3 credit hours
- ASL 210 - American Sign Language and Deaf Literature 3 credit hours

Semester Total: 9

Total Program Credits: 33

Architecture, A.S.

Program Description

Option offered through the Engineering Program

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;
- Compare materials and methods of building construction through analyses of basic structural principles, collection and measurement of relevant data, and evaluation of information as a member of a team;
- Demonstrate computer literacy in 3D programming and word processing, and other software applications;
- 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;
- Evaluate architectural plans considering various issues related to diversity, equity, and inclusion.

After Union College

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

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 143 - Elementary Mathematical Analysis I 4 credit hours**
- **ARC 101 - Architectural Design I 5 credit hours**
- ARC 105 - Introduction to Architecture and Culture 3 credit hours

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- MAT 144 - Elementary Mathematical Analysis II 4 credit hours
- **PHY 101 - General Physics I 3 credit hours AND**
- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- **ARC 102 - Architectural Design II 5 credit hours**

Semester Total: 16

Second Year

Fall Semester

- FIA 108 - Appreciation of Art 3 credit hours
- **FIA 119 - Introduction to Architectural History 3 credit hours**
- Social Science Gen Ed Requirement - 3 credit hours
- ARC 205 - Architectural CAD Design 3 credit hours
- ARC 218 - Construction Methods and Materials 3 credit hours

Semester Total: 15

Spring Semester

- FIA 120 - Architectural History 3 credit hours
- ARC 206 - Architectural 3D Design 3 credit hours
- ARC 210 - Portfolio Development and Presentation Methods 2 credit hours
- Humanities Gen Ed Requirement - 3 credit hours
- Social Science Gen Ed Requirement - 3 credit hours OR
- Humanities Gen Ed Requirement - 3 credit hours

Semester Total: 14

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Automotive Technology, A.A.S.

Program Description

This program is a cooperative program between Union County Vocational-Technical School and Union College. All courses are taught by Union College faculty. The AUT professors are ASE certified. The AUT courses will be offered only on the Scotch Plains campus of Union 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;
- Perform laboratory procedures and assess the validity of experimental/ diagnostic data;
- Use automotive computer software applications to diagnose automotive problems and to generate technical service bulletins and procedures for repair of automotive problems;
- Employ critical thinking to solve automotive problems and apply automotive repair methods to satisfy business and industry standards;
- Interpret both technical and non-technical concepts orally and in written and electronic formats;
- Demonstrate information literacy through the effective use of technical literature in the areas of automotive maintenance and repair;
- Examine the various issues of diversity, equity, and inclusion impacting the Automotive Technology industry.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Social Science Gen Ed Requirement - 3 credit hours
- MAT 113 - Math Applications 3 credit hours
- **AUT 100 - Automotive Fundamentals 4 credit hours**
- **AUT 101 - Steering/Suspension Systems 4 credit hours**

Semester Total: 17

Spring Semester

- ENG 122 - Introductory Technical and Business Writing 3 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours
- **AUT 103 - Brake Systems 4 credit hours**
- **AUT 121 - Automotive Electrical 1 4 credit hours**

Semester Total: 14

Second Year

Fall Semester

- Humanities Gen Ed Requirement - 3 credit hours
- AUT 122 - Automotive A/C & Heating 4 credit hours
- **AUT 131 - Automotive Engine Performance 1 4 credit hours**
- AUT 201 - Engine Repair 4 credit hours

Semester Total: 15

Spring Semester

- AUT 202 - Automotive Electrical 2 4 credit hours
- AUT 204 - Automotive Drivetrains 4 credit hours
- AUT 232 - Automotive Engine Performance 2 3 credit hours
- Gen Ed Requirement 3 credit hours

Semester Total: 14

Total Program Credits: 60

Biology, A.S.

Program Description

Biology is a natural science that studies life and living organisms. This Associate of Science in Biology program at Union 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.

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:

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

After Union College

Graduates can take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 143 - Elementary Mathematical Analysis I 4 credit hours**
  OR
- **MAT 171 - Unified Calculus I 4 credit hours**
- **BIO 111 - General Biology I 4 credit hours**
- **CHE 111 - General Chemistry I 4 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- MAT 144 - Elementary Mathematical Analysis II 4 credit hours
  OR
- MAT 172 - Unified Calculus II 4 credit hours
- **BIO 112 - General Biology II 4 credit hours**
- **CHE 112 - General Chemistry II 4 credit hours**

Semester Total: 15

Second Year

Fall Semester

- Humanities Gen Ed Requirement - 3 credit hours
- Social Science Gen Ed Requirement - 3 credit hours
- **CHE 211 - Organic Chemistry I 5 credit hours**
- BIO Elective 4 credit hours

Semester Total: 15

Spring Semester

- BIO Elective 4 credit hours
- CST Elective 3 credit hours
- CHE 212 - Organic Chemistry II 5 credit hours
- Humanities Gen Ed Requirement - 3 credit hours
  OR
- Social Science Gen Ed Requirement - 3 credit hours

Semester Total: 15

Total Program Credits: 60

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

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Blockchain Technology, A.A.S.

Program Description

Option offered through Business Management

This program is developed for students who wish to acquire an interdisciplinary education in business management and blockchain technology. Students will combine these skills in preparation for business careers in first line and or mid-management positions, with a broad background in the mechanics of blockchain technology and the problems it aims to solve in the business industry. This program explores various areas of business, including supply chain, finance, healthcare and real estate, and business functions where blockchain skills are in high demand.

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

- Communicate effectively in written, verbal, and electronic formats;
- Discuss past and current management theories, and principles;
- Describe the psychological and sociological theories that support the management practice of employee motivation to accomplish organizational objectives;
- Identify the challenges facing managers and their decision to use blockchain technology in a changing domestic and global business environment;
- Outline the principles, limitations, and opportunities offered by blockchain technology;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Blockchain Technology.

After Union College

This career program is designed for the student to enter the profession upon graduation. Graduates may work in one of many areas such as supply chain, finance, and healthcare. Many students elect to continue their studies at four-year colleges or universities.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- ACC 103 - Accounting I 3 credit hours
- BUS 107 - Human Resources Management 3 credit hours
- SCM 101 - Introduction to Supply Chain Management 3 credit hours
- **BLC 171 - Blockchain Fundamentals 3 credit hours**

Semester Total: 15

Spring Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- **CST 100 - Introduction to Computer Applications 3 credit hours**
- **MAT 113 - Math Applications 3 credit hours**
- **BUS 105 - Organization and Management 3 credit hours**
- ACC 104 - Accounting II 3 credit hours

Semester Total: 15

Second Year

Fall Semester

- ECO 201 - Principles of Economics I 3 credit hours
- BUS 200 - Small Business Management 3 credit hours
- BUS 201 - Business Law I 3 credit hours
- **BLC 232 - Blockchain Technologies 3 credit hours**
- **BLC 270 - Blockchain Decision Making 3 credit hours**

Semester Total: 15

Spring Semester

- BUS 202 - Business Law II 3 credit hours
- BUS 205 - Principles of Finance 3 credit hours
- ECO 202 - Principles of Economics II 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
  OR
- PSY 101 - General Psychology 3 credit hours
- Gen Ed Requirement 3 credit hours

Semester Total: 15

Total Program Credits: 60

Blockchain Technology, CT.A.

Program Description

This certificate of achievement program is for students who wish to acquire an interdisciplinary education in blockchain technology and business. Students will combine these skills in preparation for a business career of their choice. A certificate of achievement in blockchain technology provides students with a solid education of the mechanics of blockchain protocols, and the problems blockchain technologies aim to solve in the business industry. Students will explore various areas of business, including supply chain, finance, health care, real estate, and all business functions where blockchain skills are in high demand.

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

- Communicate effectively in written, verbal, and electronic formats about blockchain technology in a business setting;
- Discuss past and current management theories, principles, and application of blockchain technology;
- Describe the psychological and sociological theories that support the management practice of employee motivation and blockchain technology to accomplish organizational objectives;
- Identify the challenges facing managers using blockchain technology in a changing domestic and global business environment;
- Outline the principles governing ethical behavior using blockchain technology.

After Union College

Upon completion of this certificate the student may apply these credits toward the Blockchain Technology, A.A.S. degree or enter the workforce.

Recommended Sequence

Fall Semester

- MAT 127 - Elementary Statistics 4 credit hours
- BLC 171 - Blockchain Fundamentals 3 credit hours
- BLC 232 - Blockchain Technologies 3 credit hours
- BLC 270 - Blockchain Decision Making 3 credit hours
- SCM 101 - Introduction to Supply Chain Management 3 credit hours

Semester Total: 16

Total Program Credits: 16

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Business, A.A.

Program Description

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:

- Describe the practice and principles of a mixed economy-based market business;
- Apply the principles governing ethical behavior in business;
- Communicate effectively in written, verbal, and electronic formats in a business environment;
- Utilize technology as it applies to business practices and research;
- Develop and maintain an accounting system and analyze statistical data;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Business.

After Union College

Upon completion of this program students may enter the workforce or transfer their credits to a related degree program.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- History Gen Ed Requirement - 3 credit hours
- **MAT 119 - Algebra or higher 4 credit hours**
- ECO 201 - Principles of Economics I 3 credit hours
- **BUS 101 - Introduction to Contemporary Business 3 credit hours**
  OR
- **BUS 105 - Organization and Management 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Humanities Gen Ed Requirement - 3 credit hours
- **MAT 143 - Elementary Mathematical Analysis I or higher 4 credit hours**
- ECO 202 - Principles of Economics II 3 credit hours
- **BUS 208 - Principles of Marketing 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- PHI 210 - Ethics 3 credit hours
- **Lab Science Gen Ed Requirement - 4 credit hours**
- **ACC 103 - Accounting I 3 credit hours**
- BUS 107 - Human Resources Management 3 credit hours
- BUS 215 - Excel for Business 3 credit hours

Semester Total: 16

Spring Semester

- BUS 201 - Business Law I 3 credit hours
- ACC 104 - Accounting II 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- Diversity Gen Ed Requirement - 3 credit hours

Semester Total: 12

Total Program Credits: 60

Business Fundamentals, CT.A.

Program Description

The Business Fundamentals Certificate of Achievement program upgrades a student's skills necessary for success in the ever-changing office. The program provides a strong background in technology courses using up-to-date software.

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

- Apply critical thinking and problem-solving skills to the fundamentals of business;
- Communicate professionally and effectively using E-mail and the Internet in a business setting;
- Use beginning and advanced features of MS Excel and additional application packages.

After Union College

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

Recommended Sequence

Fall Semester

- BUS 101 - Introduction to Contemporary Business 3 credit hours
- BUS 107 - Human Resources Management 3 credit hours
- BUS 215 - Excel for Business 3 credit hours
- BUS 216 - Access for Business 3 credit hours
- COM 100 - Communications Technologies 4 credit hours

Semester Credits: 16

Total Program Credits: 16

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Business Management, A.A.S.

Program Description

This program is 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:

- Describe past and current management theories and principles and application;
- Describe the challenges facing management in a changing domestic and global business environment;
- Outline the principles governing ethical behavior in business;
- Communicate effectively in written, verbal, and electronic formats in a business environment;
- Apply critical thinking, decision making skills, strategic planning, and problem-solving skills in the field of business management;
- Describe the psychological and sociological theories that support the management practice of employee motivation, morale and team building to accomplish organizational objectives;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Business Management.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 113 - Math Applications or higher level math 3 credit hours**
- PSY 101 - General Psychology 3 credit hours
  OR
- SOC 101 - Principles of Sociology 3 credit hours
- **ACC 103 - Accounting I 3 credit hours**
- **BUS 101 - Introduction to Contemporary Business 3 credit hours**

Semester Total: 15

Spring Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
  OR
- ENG 102 - English Composition II 3 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours
- Gen Ed Requirement 3 credit hours
- **ACC 104 - Accounting II 3 credit hours**
- **BUS 105 - Organization and Management 3 credit hours**

Semester Total: 15

Second Year

Fall Semester

- ECO 201 - Principles of Economics I 3 credit hours
- **BUS 107 - Human Resources Management 3 credit hours**
- BUS 115 - Personal Finance 3 credit hours
- BUS 201 - Business Law I 3 credit hours
- **BUS 200 - Small Business Management 3 credit hours**

Semester Total: 15

Spring Semester

- ECO 202 - Principles of Economics II 3 credit hours
- BUS 202 - Business Law II 3 credit hours
- BUS 205 - Principles of Finance 3 credit hours
- BUS 210 - Marketing and the Global Environment 3 credit hours
- BUS 208 - Principles of Marketing 3 credit hours

Semester Total: 15

Total Program Credits: 60

Business Marketing, A.A.S.

Program Description

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:

- Describe the general environmental factors that impact local, national, and global trade;
- Outline the principles governing the ethical practices of the marketing industry;
- Discuss the sociological and psychological principles that apply when studying and managing the behaviors of customers and consumers;
- Communicate effectively in written, verbal, and electronic formats in a business environment;
- Apply critical thinking, decision making skills, strategic planning, and problem-solving skills in the field of business marketing;
- Demonstrate an ability to do product planning, distribution, pricing, and promotion in support of a specified marketing initiative;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Business Marketing.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- ENG 129 - Public Speaking 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **MAT 113 - Math Applications or higher 3 credit hours**
- **BUS 101 - Introduction to Contemporary Business 3 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- **BUS 105 - Organization and Management 3 credit hours**
- BUS 110 - Business and Technology 3 credit hours
- **BUS 208 - Principles of Marketing 3 credit hours**

Semester Total: 15

Second Year

Fall Semester

- ECO 201 - Principles of Economics I 3 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours
- **ACC 103 - Accounting I 3 credit hours**
- BUS 201 - Business Law I 3 credit hours
- BUS 203 - Principles of Advertising 3 credit hours

Semester Total: 15

Spring Semester

- ACC 104 - Accounting II 3 credit hours
- BUS 202 - Business Law II 3 credit hours
- BUS 210 - Marketing and the Global Environment 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- ECO 202 - Principles of Economics II 3 credit hours

Semester Total: 15

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

CAD-CAM, CT.A.

Program Description

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.

After Union 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.

Recommended Sequence

First Year

Fall Semester

- **MET 109 - Computer-Aided Drafting 3 credit hours**
- **MET 106 - Engineering Materials and Processes 3 credit hours**

Semester Total: 6

Spring Semester

- MET 104 - Engineering Drawings 3 credit hours
- MET 219 - CAD/CAM 3 credit hours

Semester Total: 6

Total Program Credits: 12

Chemistry, A.S.

Program Description

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;
- Evaluate principles of chemistry within the context of diversity, equity, and inclusion.

After Union College

Graduates can take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- **MAT 171 - Unified Calculus I 4 credit hours ***
- **CHE 111 - General Chemistry I 4 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 172 - Unified Calculus II 4 credit hours**
- **CHE 112 - General Chemistry II 4 credit hours**
- **BIO 111** - General Biology I 4 credit hours**
  OR
- **PHY 111 - Mechanics 3 credit hours**
  AND
- **PHYL 111 - Mechanics Laboratory 1 credit hour**

Semester Total: 15

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- **MAT 271 - Unified Calculus III 4 credit hours**
- **CHE 211 - Organic Chemistry I 5 credit hours**
- **BIO 112 ** - General Biology II 4 credit hours**
  OR
- **PHY 201 - Electricity and Magnetism 3 credit hours**
  AND
- **PHYL 201 - Electricity and Magnetism Laboratory 1 credit hour**

Semester Total: 16

Spring Semester

- CHE 212 - Organic Chemistry II 5 credit hours
- CST 161 - Computer Programming Fundamental 4 credit hours
- Humanities Gen Ed Requirement - 3 credit hours
- Social Science Gen Ed Requirement - 3 credit hours

Semester Total: 15

Total Program Credits: 60

*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, A.A.

Program Description

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 current social and political issues and events, both orally and in writing;
- Compare and contrast, both orally and in writing, prevalent cultural narratives and texts and the various media used to convey them;
- Demonstrate proficiency with current productivity software and apply the software to the diverse field of communications;
- Analyze, both orally and in writing, the ability to utilize various communication skills in order to present an individual point of view to others in a clear manner using verbal, written and visual techniques;
- Apply the necessary skills to research the historical aspects of current events and the cultural impact of such events.;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Communications.

After Union 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
  OR
- **MAT 127 - Elementary Statistics 4 credit hours**
- COM 100 - Communications Technologies 4 credit hours
- **COM 101 - Mass Communications 3 credit**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- **COM Elective (100-level) 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- English 200-Level Literature Gen Ed 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- History Gen Ed Requirement 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours
- **COM Elective 3 credit hours**

Semester Total: 15

Spring Semester

- COM 201 - Issues in Mass Media 3 credit hours
- COM Elective (200-level) 3 credit hours
- GOV 201 - American Government and Politics 3 credit hours
  OR
- GOV 202 - American National Government 3 credit hours
- COM Elective 3 credit hours
- COM Elective 3 credit hours

Semester Total: 15

Total Program Credits: 60

COM 100 Level Electives:

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

COM 200 Level Electives:

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

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Computer Information Systems & Technology, A.S.

Program Description

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 within a business environment;
- Evaluate IT-based solutions considering various issues related to diversity, equity, and inclusion.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Math Gen Ed Requirement 4 credit hours *
- **CST 100 - Introduction to Computer Applications 3 credit hours**
- ACC 103 - Accounting I 3 credit hours
- **BUS 105 - Organization and Management 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Math Gen Ed Requirement 4 credit hours *
- **Lab Science Gen Ed Requirement 4 credit hours**
- **CST 101 - Introduction to Information Systems 3 credit hours**
- BUS 216 - Access for Business 3 credit hours

Semester Total: 17

Second Year

Fall Semester

- ENG 122 - Introductory Technical and Business Writing 3 credit hours
  OR
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- **Humanities Gen Ed Requirement 3 credit hours**
- Social Science Gen Ed Requirement 3 credit hours
- BUS 201 - Business Law I 3 credit hours
- **CST 204 - Database Management Systems 3 credit hours**

Semester Total: 15

Spring Semester

- CST 202 - Systems Analysis and Design 3 credit hours
- CST Elective 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours

Semester Total: 12

Total Program Credits: 60

* MAT 119 or higher level math. Transfer students should consult with their transfer institution.

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Computer Science, A.S.

Program Description

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;
- Discuss the ethical and societal ramifications of software applications and computing technology;
- Design, implement, test, and evaluate complete, logical programs with documentation that meets defined specifications;
- Use written, oral, and electronic formats to effectively and professionally communicate to diverse audiences within an organization;
- Use software methods and algorithmic thinking to design technological solutions for a variety of different fields;
- Analyze various issues of diversity equity, and inclusion in the field of Computer Science.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- **CST 161 - Computer Programming Fundamentals 4 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 172 - Unified Calculus II 4 credit hours**
- PHY 111 - Mechanics 3 credit hours
  AND
- PHYL 111 - Mechanics Laboratory 1 credit hour
- **CST 162 - Computer Algorithms 4 credit hours**

Semester Total: 15

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- MAT 267 - Discrete Mathematics 3 credit hours
- **CST 261 - Data Structures 4 credit hours**
- CST 226 - Introduction to Operating Systems 3 credit hours
- CST Elective 3 credit hours **

Semester Total: 16

Spring Semester

- CST 202 - Systems Analysis and Design 3 credit hours
- CST 204 - Database Management Systems 3 credit hours
- CST Elective 3 credit hours **
- CST Elective 3 credit hours **
- Social Science Gen Ed Requirement 3 credit hours
  OR
- Humanities Gen Ed Requirement 3 credit hours

Semester Total: 15

Total Program Credits: 60

* 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 or CST 111.

The following list is recommended:

CST 122 Web Application Development

CST 135 Linux Fundamentals

CST 175 Networking Fundamentals

CST 210 Principles of Cybersecurity

CST 212 Programming for Mobile Devices

CST 215 Cyber Law and Ethics

Computer Science/Engineering, A.S.

Program Description

Option offered through the Professor Elmer Wolf Engineering Program

For Computer Engineering see Engineering, A.S.

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 College has dual admission agreements with New Jersey Institute of Technology and Rutgers University. These allow Union College graduates to transfer with junior status without going through a second admission process. Union 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;
- Investigate various issues of diversity equity, and inclusion impacting the field of Computer Science/Engineering.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- CHE 111 - General Chemistry I 4 credit hours
- **EGG 101 - Introduction to Engineering: Mathematics and Applications 4 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 172 - Unified Calculus II 4 credit hours**
- **PHY 111 - Mechanics 3 credit hours**
  AND
- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- **CST 161 - Computer Programming Fundamentals 4 credit hours**

Semester Total: 15

Second Year

Fall Semester

- ECO 202 - Principles of Economics II 3 credit hours
- **MAT 271 - Unified Calculus III 4 credit hours**
- **PHY 201 - Electricity and Magnetism 3 credit hours**
  AND
- **PHYL 201 - Electricity and Magnetism Laboratory 1 credit hour**
- EGG 111 - Engineering & Computer Graphics 2 credit hours
- CST 226 - Introduction to Operating Systems 3 credit hours

Semester Total: 16

Spring Semester

- CST 222 - Computer Organization, Architecture, and Assembly Language 4 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- Humanities or Social Science Gen Ed Requirement 3 credit hours
- MAT 272 - Differential Equations 4 credit hours

Semester Total: 14

Total Program Credits: 60

*The stated sequence of courses for the Computer Science/Engineering Option assumes that the student is math-ready for calculus.

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Criminal Justice, A.S.

Program Description

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;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Criminal Justice.

After Union 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
  OR
- **MAT 127 - Elementary Statistics 4 credit hours**
- **CRJ 101 - Introduction to Criminal Justice 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
  OR
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- HIS 201 - United States History to 1865 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours ***
- **CRJ 102 - Police Organization and Administration 3 credit hours**
- CRJ Elective 3 credit hours

Semester Total: 16

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- COM 100 - Communications Technologies 4 credit hours
- **CRJ 201 - Police Management Systems 3 credit hours**
- CRJ 203 - Criminal Investigation 3 credit hours
- CRJ Elective 3 credit hours

Semester Total: 16

Spring Semester

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

Semester Total: 12

Total Program Credits: 60

*Recommended course: CHE 107

CRJ Electives (6 credits total):

CRJ 109 Correctional Administration OR

CRJ 206 Criminal Law OR

CRJ 223 - Homeland Security

Criminal Justice, CT.

Program Description

The Criminal Justice certificate program is designed to enhance the credentials of students attempting to enter the profession who are interested in fields of police, corrections, probation, parole, and juvenile justice.

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 College

Graduates can work in the field of criminal justice or can further their education in the field.

Recommended Sequence

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **CRJ 101 - Introduction to Criminal Justice 3 credit hours**
- **CRJ 201 - Police Management Systems 3 credit hours**
- CRJ 203 - Criminal Investigation 3 credit hours

Semester total: 15

Spring Semester

- MAT 125 - Survey of Special Topics in Mathematics 4 credit hours
  OR
- MAT 127 - Elementary Statistics 4 credit hours
  OR
- Lab Science Gen Ed Requirement 4 credit hours
  OR
- CST 100 - Introduction to Computer Applications 3 credit hours
- CRJ 102 - Police Organization and Administration 3 credit hours
- CRJ 205 - Police Role in the Community 3 credit hours
- CRJ 206 - Criminal Law 3 credit hours
- CRJ 223 - Homeland Security 3 credit hours

Semester Total: 15-16

Total Program Credits: 30-31

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Cyber Forensics, A.A.S.

Program Description

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 forensic 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 a digital forensics investigation that conforms to accepted professional standards and are based on the investigative process;
- Examine professional and ethical codes of conduct with respect to cyber forensics;
- 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;
- Evaluate cyber forensics issues within the context of diversity, equity, and inclusion.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 127 - Elementary Statistics 4 credit hours**
- CST 135 - Linux Fundamentals 3 credit hours
- **CST 170 - Digital Forensics Essentials 4 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **Lab Science Gen Ed Requirement - 4 credit hours**
- CST 230 - Windows Administration and Security 3 credit hours
- **CST 176 - Advanced Digital Forensics 4 credit hours**

Semester Total: 14

Second Year

Fall Semester

- GOV 201 - American Government and Politics 3 credit hours
- **CST 161 - Computer Programming Fundamentals 4 credit hours**
- CST 175 - Networking Fundamentals 3 credit hours
- CST 210 - Principles of Cybersecurity 3 credit hours
- **CRJ 101 - Introduction to Criminal Justice 3 credit hours**

Semester Total: 16

Spring Semester

- CST 215 - Cyber Law and Ethics 3 credit hours
- CST 240 - Network Forensics and Incident Response 4 credit hours

  OR
- CST 245 - Cloud and Personal Device Forensics 4 credit hours
- CST 285 - Cyber Forensics Capstone 3 credit hours
- CST or CRJ Elective * 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours

Semester Total: 16

Total Program Credits: 60

*Any CST course except CST 100 or CST 111.

Cybersecurity, A.S.

Program Description

Option offered through Mathematics

The demand for college graduates with analytical thinking and problem-solving skills is increasing. To point, in the U.S. there is a severe and urgent workforce shortage in cybersecurity. Cybersecurity jobs are in high demand and the need for more security professionals is escalating. According to the U.S. Bureau of Labor Statistics, the rate of growth for jobs in cybersecurity is projected at 37% through 2022, which is much faster than the average for all other occupations.

This transfer degree option provides a solid subject matter foundation in both mathematics and computer science for students pursuing their studies in the applied field of Cybersecurity. Mathematics and computer science positions are already in high demand, and including cybersecurity knowledge makes these jobs even more critical and desirable. Union College graduates will have the opportunity to matriculate at four-year colleges and universities, pursuing a baccalaureate degree in cybersecurity.

This program 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 critical thinking, analytical reasoning, and problem-solving skills;
- Effectively communicate technical and non-technical information in oral, written, graphic, and electronic formats;
- Apply mathematical theorems to solve a variety of classical problems;
- Formulate solutions to cybersecurity problems using algorithmic and mathematical methods;
- Discuss the legal, ethical, and societal issues in the field of cybersecurity;
- Demonstrate information literacy through the effective use of cybersecurity and mathematical resources;
- Evaluate Cybersecurity issues within the context of diversity, equity, and inclusion.

After Union College

Graduates can transfer to a four-year college or university with a solid subject matter foundation to pursue a baccalaureate degree in Cybersecurity. Consult with the STEM Division for details.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- **PHY 101 **- General Physics I 3 credit hours**
  AND
- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- **CST 161 - Computer Programming Fundamentals 4 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 172 - Unified Calculus II 4 credit hours**
- PHY 102 - General Physics II 3 credit hours **
  AND
- PHYL 102 - General Physics II Laboratory 1 credit hour
- **CST 162 - Computer Algorithms 4 credit hours**

Semester Total: 15

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- MAT 265 - Linear Algebra 3 credit hours
- **CST 175 - Networking Fundamentals 3 credit hours**
- **CST 210 - Principles of Cybersecurity 3 credit hours**

Semester Total: 15

Spring Semester

- CST 215 - Cyber Law and Ethics 3 credit hours
- CST Elective 3 credit hours ***
- HIS 101 - Introduction to Western Civilization I 3 credit hours
- MAT 267 - Discrete Mathematics 3 credit hours
- MAT 248 - Probability and Statistics 3 credit hours

Semester Total: 15

Total Program Credits: 60

* 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.

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Drone Design and Applications, A.A.S.

Program Description

Option offered through Engineering Technology

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 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;
- Examine the various issues of diversity, equity, and inclusion impacting the field of Drone Design and Applications.

After Union 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.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- **MET 109 - Computer-Aided Drafting 3 credit hours**
- **EET 101 - Principles of DC Circuits 4 credit hours**
- **UAS 105 - Remote Pilot Operations 3 credit hours**

Semester Total: 17

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **Math Gen Ed Requirement** 4 credit hours**
- **MET 112 - Mechanics-Statics 3 credit hours**
- **EET 111 - Digital Computer Fundamentals 4 credit hours**
- **EET 112 - (UAS 112) Sensors for Drones 3 credit hours**

Semester Total: 17

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- CST 115 - Introduction to Computer Programming 3 credit hours
- **PHY 101 - General Physics I 3 credit hours**
- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- **EET 209 - (UAS 209) Drone Control Systems 3 credit hours**

Semester Total: 13

Spring Semester

- EET 285 - (UAS 285) Drone Design Capstone 3 credit hours
- EET 212 - (UAS 212) IoT Applications for Drones 3 credit hours
- PHY 102 - General Physics II 3 credit hours **AND**
- PHYL 102 - General Physics II Laboratory 1 credit hour
- ECO 201 - Principles of Economics I 3 credit hours

Semester Total: 13

Total Program Credits: 60

*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

Early Childhood Elementary Education, Suggested Grades Pre-K-3, A.A.

Program Description

Option offered through Liberal Arts

The Associate of Arts (AA) in Liberal Arts with an option in Early Childhood Elementary Education will offer students the first two years of coursework for acceptance into a four-year Teacher Preparation Program. The program will provide a specialized degree focusing on teaching in the elementary school (K-3). Emphasis will be placed on preparing students for passing the CORE Praxis test of Reading, Writing and Mathematics for acceptance into a College of Education. Students in this option take courses in education theory and practice, and complete fieldwork observations coupled with the general studies required for successful transfer.

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

- Demonstrate a strong foundational knowledge in educational theory and practice as evidenced by discussing the key educational models, classic research studies, and recent trends in education.
- Apply foundational knowledge of education to teaching and learning activities and classroom dynamics and recognize educational concepts and theories as they emerge in classroom settings.
- Create written documents such as lesson plans and individual student summaries that are clear, well-organized, and grammatically accurate.
- Research and examine educational policies and the consequences of different policy options and communicate findings effectively in written, verbal, and electronic formats.
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Early Childhood Education.

After Union College

Graduates of this program will transfer to a four-year college or university for a baccalaureate degree to work with students in early childhood education.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- History Gen Ed Requirement 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- **EDU 101 - Introduction to Education 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- **COM 100 - Communications Technologies 4 credit hours**
- **EDU 200 - The Exceptional Child 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- Liberal Arts Elective 3 credit hours
- **EDU 205 - Educational Psychology 3 credit hours**

Semester Total: 16

Spring Semester

- EDU 215 - Field Work in Education 3 credit hours
- PSY 205 - Child Psychology 3 credit hours
- GEO 201 - World Geography 3 credit hours
- Liberal Arts 200-Level Elective 3 credit hours

Semester Total: 12

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Education, Suggested Grades 4-12, A.A.

Program Description

Option offered through Liberal Arts

The Associate of Arts (AA) in Liberal Arts with an option in Education will offer students the first two years of coursework for acceptance into a four-year Teacher Preparation Program. The program will provide a specialized degree focusing on teaching grades 4 through 12. Emphasis will be placed on preparing students for passing the CORE Praxis test of Reading, Writing and Mathematics for acceptance into a College of Education. Students in this option take courses in education theory and practice, and complete fieldwork observations coupled with the general studies required for successful transfer.

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

- Demonstrate a strong foundational knowledge in educational theory and practice as evidenced by discussing the key educational models, classic research studies, and recent trends in education.
- Apply foundational knowledge of education to teaching and learning activities and classroom dynamics and recognize educational concepts and theories as they emerge in classroom settings.
- Create written documents such as lesson plans and individual student summaries that are clear, well-organized, and grammatically accurate.
- Research and examine educational policies and the consequences of different policy options and communicate findings effectively in written, verbal, and electronic formats.
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Education.

After Union 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.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- History Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- **EDU 101 - Introduction to Education 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- **COM 100 - Communications Technologies 4 credit hours**
- **EDU 200 - The Exceptional Child 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- Liberal Arts Elective 3 credit hours
- **EDU 205 - Educational Psychology 3 credit hours**

Semester Total: 16

Spring Semester

- EDU 215 - Field Work in Education 3 credit hours
- GEO 201 - World Geography 3 credit hours
- PSY 206 - Adolescent Psychology 3 credit hours
- Liberal Arts 200-Level Elective 3 credit hours

Semester Total: 12

Total Program Credits: 60

Educational Interpreter Program (EIP), CT.A.

Program Description

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

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.

After Union 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.

Recommended Sequence

Certificate Courses

Fall Semester

- **EIP 202 - Language Development for the Educational Interpreter – Online 3 credit hours**
- EIP 204 - Ethics and Laws for Educational Interpreters – Online 3 credit hours
- EIP 210 - Deaf-Blind Interpreting and Interpreting Strategies 3 credit hours

Semester Total: 9

Spring Semester

- EIP 201 - Methods of Instruction for Educational Interpreters – Online 3 credit hours
- EIP 203 - Child Development for Educational Interpreters – Online 3 credit hours
- EIP 207 - Disability Laws for Educational Interpreters – Online 1 credit hour

Semester Total: 7

Total Program Credits: 16

Emergency Medical Studies, CT.

Program Description

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 Studies program of the certificate of achievement meets or exceeds the National Standard Curriculum set forth by the US Department of Transportation and adheres to New Jersey State Emergency Medical Technician Regulations NJAC 8:40 and 8:40A. The program is approved and sanctioned by the New Jersey Department of Health and Human Services – Office of Emergency Medical Services www.state.nj.us/health/ems/.

The Certificate in Emergency Medical 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 Heath Care Provider CPR certification, or completed EMT 100 prior to enrolling in EMT 106.

Further Emergency Medical Studies Certificate Information:

- The mandatory orientation session is held in one week prior to the start of each semester. The exact date will be provided upon enrollment in EMT 106. There is no makeup session for this mandatory orientation session.
- Students are required to submit proof of current good general health and vaccination status results at orientation in order to meet the clinical portion of the program. The fees associated with these tests are paid by the student.
- Students should refer to the course syllabi for exact meeting dates and times.

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

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

After Union 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.

Recommended Sequence

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- ALH 161 - Medical Terminology 3 credit hours
- **EMT 106 - Emergency Medical Technician 7 credit hours**

Semester Total: 16

Spring Semester

- **BIO 102 - Human Biology 4 credit hours**
- COM 100 - Communications Technologies 4 credit hours
- PSY 204 - Lifespan Development 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours

Semester Total: 14

Total Program Credits: 30

Emergency Medical Studies, CT.A.

Program Description

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 Studies program of the certificate of achievement meets or exceeds the National Standard Curriculum set forth by the US Department of Transportation and adheres to New Jersey State Emergency Medical Technician Regulations NJAC 8:40 and 8:40A. The program is approved and sanctioned by the New Jersey Department of Health and Human Services – Office of Emergency Medical Services www.state.nj.us/health/ems/.

The Certificate of Achievement in Emergency Medical 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 heath 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.

After Union 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), Sport Management Program or to a four-year institution for continuation of a bachelor's degree.

Recommended Sequence

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- ALH 161 - Medical Terminology 3 credit hours
- EMT 106 - Emergency Medical Technician 7 credit hours

Semester Total: 16

Total Program Credits: 16

Engineering, A.S.

Program Description

Aerospace, Biomedical, Chemical, Civil, Computer, Electrical, Environmental, Science, Industrial and Mechanical

Professor Elmer Wolf Engineering Program
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 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;
- Investigate various issues of diversity equity, and inclusion impacting the field of Engineering.

After Union College

Graduates are eligible to take advantage of the many transfer/articulation agreements Union 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
Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- CHE 111 - General Chemistry I 4 credit hours
- **EGG 101 - Introduction to Engineering: Mathematics and Applications 4 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 172 - Unified Calculus II 4 credit hours**
- CHE 112 - General Chemistry II 4 credit hours
- **PHY 111 - Mechanics 3 credit hours AND**
- **PHYL 111 - Mechanics Laboratory 1 credit hour**

Semester Total: 15

Second Year
Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- **MAT 271 - Unified Calculus III 4 credit hours**
- **PHY 201 - Electricity and Magnetism 3 credit hours AND**
- **PHYL 201 - Electricity and Magnetism Laboratory 1 credit hour**
- Tech Elective[1] (Mechanical & Civil) 3 credit hours
  OR
  Tech Elective[1] (Chemical) 5 credit hours
  OR
  Tech Elective[1 & 2] (Electrical) 5 credit hours

Semester Total: 14 or 16
Spring Semester

- Tech Elective[2 & 3] (Mechanical & Civil) 6 credit hours
  OR
  Tech Elective[2] (Chemical) 4 credit hours
  OR
  Tech Elective (Electrical) 4 credit hours
- Humanities Gen Ed Requirement 3 credit hours
  OR
- Social Science Gen Ed Requirement 3 credit hours
- ECO 202 - Principles of Economics II 3 credit hours
- MAT 272 - Differential Equations 4 credit hours

Semester Total: 14 or 16

Total Program Credits: 60

*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

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

Civil Engineering Track Electives

[1] EGG 201 - Engineering Mechanics (Statics) 3 credit hours
[2] EGG 202 - Engineering Mechanics (Dynamics) 3 credit hours
[3] Elective 3 credits

Electrical Engineering Track Electives

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

Chemical Engineering Track Electives

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

Engineering Technology, A.A.S.

Program Description

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;
- Examine the various issues of diversity, equity, and inclusion impacting the field of Engineering Technology.

After Union College

Graduates have the option of entering a Bachelor of Science in Technology program or accepting positions as field service representatives or laboratory technicians with firms in the computer and electronic fields.

Recommended Sequence

First Year
Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- **EET 101 - Principles of DC Circuits 4 credit hours**
- **MET 109 - Computer-Aided Drafting 3 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **Math Gen Ed Requirement 4 credit hours** **
- **MET 112 - Mechanics-Statics 3 credit hours**
- **EET 111 - Digital Computer Fundamentals 4 credit hours**
- **Track Elective (EET/MET)[1] 3 credit hours**

Semester Total: 17

Second Year
Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- CST 115 - Introduction to Computer Programming 3 credit hours
- **PHY 101 - General Physics I 3 credit hours AND**
- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- **Track Elective (EET)[2] 5 credit hours OR Track Elective (MET)[2,3] 6 credit hours**

Semester Total: 15 or 16
Spring Semester

- **Track Elective (EET)[3,4]** 7 credit hours **OR Track Elective (MET)[4,5]** 6 credit hours
- ECO 201 - Principles of Economics I 3 credit hours
- PHY 102 - General Physics II 3 credit hours
- PHYL 102 - General Physics II Laboratory 1 credit hour

Semester Total: 13 or 14

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

TRACK ELECTIVES:

Mechanical Engineering Technology Track:
First Year, Spring Semester
MET 106[1] 3 credit hours
Second Year, Fall Semester
MET 104[2] 3 credit hours
MET 219[3] 3 credit hours
Second Year, Spring Semester
CIT 210[4] 3 credit hours
CIT 215[5] 3 credit hours

Electronics/Electromechanical Engineering Technology Track:
First Year, Spring Semester
EET 102[1] 3 credit hours
Second Year, Fall Semester
EET 213[2] 5 credit hours
Second Year, Spring Semester
CIT 210[3] 3 credit hours
EET 204[4] 4 credit hours

English, A.A.

Program Description

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 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;
- Demonstrate the ability to revise papers through 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;
- Apply technology skills to write research papers that explore critical inquiry on works and authors studied; judge reliable sources for such writing;
- Discuss major writers, movements, cultures, and works covered in a given course in ways that demonstrate analytical competency and compositional skill;
- Illustrate the interrelatedness of literature, literary theory, and composition through discussion and written analysis;
- Evaluate the various issues related to diversity, equity, and inclusion through the use of textual analysis.

After Union 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 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

Fall Semester

- **ENG 101 - English Composition I 3 credit hours**
- Modern Language Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **MAT 127 - Elementary Statistics 4 credit hours**
- HIS 101 - Introduction to Western Civilization I 3 credit hours
  OR
- HIS 102 - Introduction to Western Civilization II 3 credit hours

Semester Total: 16

Spring Semester

- **ENG 102 - English Composition II 3 credit hours**
- Modern Language Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- Liberal Arts Elective* 3 credit hours

Semester Total: 16

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- COM 100 - Communications Technologies 4 credit hours
- **ENG 200-Level Elective 3 credit hours**
- ENG 200-Level Elective 3 credit hours

Semester Total: 16

Spring Semester

- ENG 122 - Introductory Technical and Business Writing 3 credit hours
  OR
- COM 102 - Reporting and News Writing 3 credit hours
- ENG 213 - Advanced Writing 3 credit hours
- Liberal Arts Elective* 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours (ENG 200-Level)

Semester Total: 12

Total Program Credits: 60

* ENG 200-Level or FIA 232

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Entertainment Technology, CT.

Program Description

The Entertainment Technology certificate will provide students with a solid foundation for further study and employment in the growing field of entertainment, which encompasses live events, video games, film/TV/radio, and more. Students will learn the foundations of multi-track session recording and video production and editing as well as Mastering/Restoration techniques.

Also, students will gain the requisite training and skills using industry-standard equipment and software. Emphasis will be placed on the use and application of DAW & MIDI (Cubase & Adobe Audition), and film editing systems (Adobe Premiere).

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

- Apply the fundamentals of audio engineering and digital imaging and video editing for the field of entertainment technology;
- Discuss ethical issues and social responsibilities related to the field of entertainment technology;
- Communicate, both orally and in writing, the history of entertainment technology;
- Utilize critical thinking and current entertainment technology tools and software to execute productions in the field;
- Demonstrate knowledge of the fundamental process and sequence involved in the entertainment technology field, using a variety of information literacy techniques.

After Union College

Graduates of the Entertainment Technology certificate program can enter crew and entry-level positions that support entertainment events for a variety of organizations. Graduates can also continue their studies in the Media Option offered through the Communications, A.A. program at Union College.

Recommended Sequence

First Year

Fall Semester

- **COM 100 - Communications Technologies 4 credit hours**
- ENG 101 - English Composition I 3 credit hours
- FIA 105 - Music Appreciation 3 credit hours
- COM 103 - Introduction to Radio Broadcasting 3 credit hours
- **COM 113 - Audio Production I 3 credit hours**

Semester Total: 16

Spring Semester

- COM 209 - The Evolution of Film 3 credit hours
- COM 213 - Audio Production II 3 credit hours
- COM 216 - Digital Video Editing and Multimedia Imaging 3 credit hours
- HIS 101 - Introduction to Western Civilization I 3 credit hours
- PSY 101 - General Psychology 3 credit hours

Semester Total: 15

Total Program Credits: 31

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Environmental Science - Sustainability, A.S.

Program Description

Option offered through Biology

The Environmental Science - Sustainability Option offered through Biology, A.S. offers the first two years of a bachelor's degree program with a major in Environmental Science - Sustainability. 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 Environmental Science - Sustainability 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 Environmental Science - Sustainability Option offered through Biology, A.S. 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.

At the end of this program, students will be able to:

- Apply knowledge 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.
- Utilize critical thinking and problem-solving skills to solve technical problems.
- 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 related information resources
- Evaluate issues related to environmental science within the context of diversity, equity, and inclusion.

After Union College

Graduates can take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 143 - Elementary Mathematical Analysis I 4 credit hours**
  OR
- **MAT 171 - Unified Calculus I 4 credit hours**
- Environmental Science Elective 4 credit hours*
- **CHE 111 - General Chemistry I 4 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 144 - Elementary Mathematical Analysis II 4 credit hours**
  OR
- **MAT 172 - Unified Calculus II 4 credit hours**
- **BIO 111 - General Biology I 4 credit hours**
- **CHE 112 - General Chemistry II 4 credit hours**

Semester Total: 15

Second Year

Fall Semester

- Humanities Gen Ed Requirement - 3 credit hours
- ECO 201 - Principles of Economics I 3 credit hours
  OR
- ECO 202 - Principles of Economics II 3 credit hours
- **BIO 112 - General Biology II 4 credit hours**
- **CHE 211 - Organic Chemistry I 5 credit hours**

Semester Total: 15

Spring Semester

- Humanities Gen Ed Requirement 3 credit hours
  OR
- Social Science Gen Ed Requirement 3 credit hours
- EGG 107 - Understanding Sustainability & Green Technologies 3 credit hours
- Environmental Science Elective 4 credit hours*
- CHE 212 - Organic Chemistry II 5 credit hours

Semester Total: 15

Total Program Credits: 60

***Environmental Science Electives**

BIO 103 - Environmental Science 4 credit hours

BIO 113 - Plants, People, and Society 4 credit hours

BIO 208 - Ecology 4 credit hours

GEY 101 - Physical Geology 4 credit hours

eSports Management, A.S.

Program Description

Option offered through Sport Management

This degree option is developed for the students who wish to acquire knowledge about the history, community, and business of eSports with future employers and other stakeholders in the industry. Students will develop effective communications geared towards fans and decision makers within the eSports industry, and develop actionable suggestions to encourage growth or improvement in the eSports industry. This degree option prepares students with project management skills and tools needed to plan and execute eSports events.

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

- Analyze the sociological, financial, and historical influences in the sports industry;
- Explain how sports impact local, national and international affairs;
- Interpret the aspects of finance, human resources, marketing, budgeting, career exploration, and resume writing in sports;
- Communicate effectively in writing, verbal, and electronic formats to a diverse, multicultural audience in the field of sports;
- Apply critical thinking to understand current and emerging trends in eSports;
- Demonstrate knowledge of basic principles of management in the eSports industry;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of eSports Management.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 127 - Elementary Statistics 4 credit hours**
- BUS 105 - Organization and Management 3 credit hours

  OR
- BUS 107 - Human Resources Management 3 credit hours
- GDP 101 - Fundamentals of Game Design 3 credit hours
- **ESP 100 - Introduction to eSports Management 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours

  OR
- ENG 122 - Introductory Technical and Business Writing 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- COM 100 - Communications Technologies 4 credit hours
- **BSM 110 - The Evolution of American Sports 3 credit hours**

Semester Total: 14

Second Year

Fall Semester

- PHI 210 - Ethics 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- ACC 103 - Accounting I 3 credit hours
- **ESP 230 - Principles of eSports Management and Event Management 3 credit hours**

Semester Total: 15

Spring Semester

- BSM 210 - Sport & Law 3 credit hours
- BSM 220 - Current Issues in Sports 3 credit hours
- BUS 208 - Principles of Marketing 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- ECO 202 - Principles of Economics II 3 credit hours

Semester Total: 15

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

eSports Management, CT.A.

Program Description

This Certificate of Achievement program is for students who wish to acquire knowledge about the history, community, and business of eSports as well as learn about employers and other stakeholders in the industry. Students will develop effective communication skills focused on decision making within the eSport industry. This Certificate of Achievement provides students with project management skills and tools needed to plan and execute eSports events.

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 eSports;
- Explain the culture of eSports, its audience and fan base, and dominant game genres that make up the industry;
- Analyze the sociological, financial, and historical influences on the field of eSports management;
- Interpret the aspects of finance, human resources, marketing, budgeting, career exploration, and resume writing in eSports.

After Union 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

Fall Semester

- MAT 127 - Elementary Statistics 4 credit hours
- ESP 100 - Introduction to eSports Management 3 credit hours
- GDP 101 - Fundamentals of Game Design 3 credit hours
- PHI 210 - Ethics 3 credit hours
- ESP 230 - Principles of eSports Management and Event Management 3 credit hours

Semester Credits: 16

Total Program Credits: 16

Fire Science Technology, A.A.S.

Program Description

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:

- Explain the organization and management of fire departments;
- Analyze hazardous material incidents and use information technology to develop written incident action plans that demonstrate an appropriate and logical process for safely protecting the public, property and environment;
- Identify fire ground conditions and select appropriate firefighting strategies;
- Utilize incident command to apply proper tactical assignments to achieve fire ground objectives;
- Demonstrate 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;
- Demonstrate information literacy, familiarity, and effective application of technical information documents in the field of fire science technology;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Fire Science Technology.

After Union College

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

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours
- **MAT 113 - Math Applications or higher 3 credit hours**
- PSY 101 - General Psychology 3 credit hours
  OR
- SOC 101 - Principles of Sociology 3 credit hours
- **FST 103 - Fire Protection 3 credit hours**

Semester Total: 15

Spring Semester

- ENG 122 - Introductory Technical and Business Writing 3 credit hours
- Gen Ed Requirement 3 credit hours
- FST 102 - Building Construction 3 credit hours
- **FST 105 - Fire Prevention 3 credit hours**
- FST 106 - Fire Fighting Tactics 3 credit hours

Semester Total: 15

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- **FST 107 - Hazardous Materials 3 credit hours**
- FST 109 - Fire Protection Systems 3 credit hours
- FST 113 - Fire Department Organization and Management 3 credit hours
- FST 218 - Fireground Strategies and Concepts 3 credit hours

Semester Total: 15

Spring Semester

- FST 108 - Fire Hydraulics 3 credit hours
- FST 111 - Fire Causes and Detection 3 credit hours
- FST 112 - Emergency Rescue Operations 3 credit hours
- FST 119 - Incident Command 3 credit hours
- GOV 204 - Public Administration 3 credit hours

Semester Total: 15

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Game Design and Development, A.A.S.

Program Description

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 programming, digital art and animation, and game development concepts. Students learn the concepts of gameplay, graphics programming, artificial intelligence, 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 courses. The program provides students with the skills necessary for entry-level positions in the game development industry.

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

- Define game design and development terminology and processes;
- Discuss business and legal concepts related to the game development industry;
- Use a modern professional game engine to develop game prototypes;
- Demonstrate digital art and animation techniques in game design and development;
- Apply software methods and algorithms to design technological solutions in game development;
- Combine graphical and technical methods to produce aesthetic solutions for interactive games;
- Communicate effectively in writing, verbal, and electronic formats;
- Examine the various issues of diversity, equity, and inclusion impacting the Game Design and Development industry.

After Union College

Graduates can apply for entry-level positions in the fields of Game Design and Game Development, or may transfer to four-year colleges or universities in Game Design or a similar degree program.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- FIA 104 - Fundamentals of 2D Design 3 credit hours
- **MAT 144 - Elementary Mathematical Analysis II 4 credit hours ***
- CST 115 - Introduction to Computer Programming 3 credit hours
- **GDP 101 - Fundamentals of Game Design 3 credit hours**

Semester Total: 16

Spring Semester

- COM 105 - Storytelling for Digital Media 3 credit hours
- FIA 108 - Appreciation of Art 3 credit hours
- CST 161 - Computer Programming Fundamentals 4 credit hours
- **GDP 112 - Introduction to Game Programming 3 credit hours**
- **GDP 115 - The Business of Game Development 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- ENG 102 - English Composition II 3 credit hours
- **PHY 101 - General Physics I 3 credit hours**
- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- FIA 130 - Introduction to Graphic Design 3 credit hours
- **GDP 201 - Digital Animation for Games 3 credit hours**
- **GDP 212 - Artificial Intelligence for Games 3 credit hours**

Semester Total: 16

Spring Semester

- GDP 215 - 3D Game Graphics Programming 3 credit hours
- GDP 280 - Game Design and Development Capstone 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- COM 109 - Introduction to Film Study 3 credit hours

Semester Total: 12

Total Program Credits: 60

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

Graphic Design, A.A.

Program Description

Option offered through Liberal Arts

In this multidisciplinary degree, students are provided with a theoretical and practical understanding of the artistic as well as commercial area of graphic design. Students receive training in a wide range of activities including typography, publication design, computer-aided graphic design, and web design. Students create digital works using cutting-edge software, such as the Adobe Creative Suite, including Illustrator, Photoshop, InDesign, and Animate.

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

- Discuss 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, skills needed to work with clients throughout the process of design problem-solving, from research, design, and production to professionally presenting finished work;
- Utilize various research methods and observational techniques to solve design problems;
- Create a capstone project that will serve as the focus of a portfolio for print and digital media;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Graphic Design.

After Union 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- **FIA 104 - Fundamentals of 2D Design 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- History Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- **FIA 109 - Introduction to Drawing 3 credit hours**
- **FIA 130 - Introduction to Graphic Design 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- Modern Language Gen Ed Requirement 3 credit hours
- COM 100 - Communications Technologies 4 credit hours
- Diversity Gen Ed Requirement 3 credit hours *
- **FIA 210 - Typography Fundamentals 3 credit hours**
- **COM 112 - Multimedia Development I 3 credit hours**

Semester Total: 16

Spring Semester

- FIA 230 - Advanced Graphic Design 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- Liberal Arts 200-Level Elective** 3 credit hours

Semester Total: 12

Total Program Credits: 60

*Recommended Diversity Gen Ed: FIA 111 or FIA 112

**Recommended Liberal Arts 200-Level Elective: FIA 226

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Graphic Design, CT.

Program Description

This Graphic Design Certificate provides students who need a certificate to start working in the market as a graphic designer with a practical understanding of the commercial area of graphic design. In this multi-disciplinary certificate students receive training in a wide range of activities including typography, publication design, computer-aided graphic design, and web design. Students create digital works using cutting-edge software, such as the Adobe Creative Suite, including Illustrator, Photoshop, InDesign, and Animate.

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

- Demonstrate an understanding of the practical skills involved in creating visuals, combining images and typography;
- Demonstrate knowledge of appropriate color and paper selection for print and non-print media;
- Understand and utilize digital design software and website development tools to prepare graphic examples;
- Create a portfolio that demonstrates competency in graphic design.

After Union College

Graduates can work in the field of graphic design or further their education in the discipline.

Recommended Sequence

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **FIA 104 - Fundamentals of 2D Design 3 credit hours**
- **FIA 130 - Introduction to Graphic Design 3 credit hours**
- FIA 111 - Art History Survey I 3 credit hours
- COM 112 - Multimedia Development I 3 credit hours

Semester Total: 15

Spring Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours *
- FIA 230 - Advanced Graphic Design 3 credit hours
- FIA 109 - Introduction to Drawing 3 credit hours
- Math, Science, Tech Gen Ed - Requirement 4 credit hours

Semester Total: 16

Total Program Credits: 31

*FIA 108 recommended.

Health Information Technology, A.A.S.

Program Description

The AAS degree in Health Information Technology offers a 60-credit integrated curriculum of general education and professional requirements based on entry-level competencies. Health Information Technology involves the use of technology to facilitate the electronic exchange and management of health information such as electronic health records; database management; information privacy and security. It encompasses an array of technologies used to store, share and analyze health information. The major in Health Information Technology at Union College is designed to prepare students from diverse backgrounds for entry-level technical and managerial career opportunities in the use of technology to store, share, and analyze health information. In addition, the Health Information Technology major is an excellent choice for students who may wish to pursue a bachelor's and advanced degrees in Health Information Management. It is particularly attractive to students seeking a major with a high career potential.

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

- Use health information systems to support quality assurance, financial reimbursement, and legal and ethical standards;
- Evaluate healthcare data to synthesize relevant health information for quality assurance;
- Accurately code patient records;
- Apply billing reimbursement methodologies to patient;
- Collaborate effectively with diverse individuals and members of the healthcare team.

After Union College

Graduates of the program will be eligible to work as clinical coding and billing specialists, medical records analysts, medical records supervisors, or medical information technician. Health information technicians may work in a variety of healthcare settings that include hospitals, physician practices, nursing homes, mental health facilities, long-term care, home health care, rehabilitation facilities, managed care organizations, public health agencies, government agencies, health information technology firms, insurance agencies, consulting and law firms, pharmaceutical companies, and health product vendors among others.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours
- **BIO 105 - Anatomy and Physiology I 4 credit hours**
- ALH 161 - Medical Terminology 3 credit hours
- **HIT 101 - Introduction to Healthcare Information Technology 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **BIO 106 - Anatomy and Physiology II 4 credit hours**
- MAT 127 - Elementary Statistics 4 credit hours
- HIT 110 - Legal Issues In Healthcare 3 credit hours
- **HIT 111 - Healthcare Information Standards 3 credit hours**

Semester Total: 17

Second Year

Fall Semester

- PSY 101 - General Psychology 3 credit hours
  OR
- PSY 102 - Psychology of Personality 3 credit hours
- ALH 201 - Pathophysiology & Health Care 3 credit hours
- **HIT 201 - Healthcare Information Technologies 3 credit hours**
- HIT 202 - Coding & Classification I 4 credit hours

Semester Total: 13

Spring Semester

- HIT 203 - Coding & Classification II 4 credit hours
- HIT 204 - Healthcare Information in Alternative Systems 3 credit hours
- HIT 205 - Reimbursement 3 credit hours
- HIT 206 - Professional Practice 2 credit hours
- HIT 207 - Health Information Management 2 credit hours

Semester Total: 14

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Health Science, A.S.

Program Description

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;
- Demonstrate competency in integrating diversity, equity, and inclusive practices in healthcare settings.

After Union 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 St. Elizabeth University.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- **BIO 105 - Anatomy and Physiology I** 4 credit hours
  OR
- **BIO 102 - Human Biology** 4 credit hours

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- PSY 204 - Lifespan Development 3 credit hours
  OR
- PSY 205 - Child Psychology 3 credit hours
- Math Gen Ed Requirement 4 credit hours
- **BIO 106 - Anatomy and Physiology II** 4 credit hours

Semester Total: 14

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
- Gen Ed Elective Requirement 3 credit hours
- Elective 3 credit hours
- **ALH 161 - Medical Terminology** 3 credit hours
- ALH 201 - Pathophysiology & Health Care 3 credit hours *****

Semester Total: 15

Spring Semester

- Applied Health Courses** 12 credit hours
- Gen Ed Elective Requirement 3 credit hours

Semester Total: 15

Total Program Credits: 60

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

** The following courses could be used for the 12 credits in nursing or allied health:

BIO 108 - Microbiology
EMT 100 - Cardiopulmonary Resuscitation
EMT 106 - Emergency Medical Technician
Gerontology
Interpreting
Paramedic
PTA
Practical Nursing
Psychology
Psychosocial Rehabilitation
Radiology, Sonography
RN courses - Trinitas or Muhlenberg

History, A.A.

Program Description

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:

- Demonstrate, in written or oral communication, knowledge of key historical facts, values, persons, and ideas;
- Evaluate historical evidence for bias and for relevance to major historical issues and controversies;
- Explain change over time, cross-cultural connections, and links between the past and the present;
- Discuss 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;
- Analyze evidence derived from primary and secondary sources to support a thesis;
- Conduct historical research according to professional standards;
- Evaluate the various historical issues related to diversity, equity, and inclusion.

After Union College

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- ENG 129 - Public Speaking 3 credit hours
- **HIS 101 - Introduction to Western Civilization I 3 credit hours**
  OR
- **HIS 103 - Introduction to World History I 3 credit hours**
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
  OR
- **MAT 127 - Elementary Statistics 4 credit hours**
- Humanities Gen Ed Requirement 3 credit hours

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **HIS 102 - Introduction to Western Civilization II 3 credit hours**
  OR
- **HIS 104 - Introduction to World History II 3 credit hours**
- GOV 201 - American Government and Politics 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- Diversity Gen Ed Requirement 3 credit hours

Semester Total: 16

Second Year

Fall Semester

- **HIS 201 - United States History to 1865 3 credit hours**
- PHI 212 - Logic and Critical Thinking 3 credit hours
- COM 100 - Communications Technologies 4 credit hours
- ECO 201 - Principles of Economics I 3 credit hours
- History Elective 3 credit hours

Semester Total: 16

Spring Semester

- HIS 202 - United States History Since 1865 3 credit hours
- History Elective 3 credit hours
- GOV 202 - American National Government 3 credit hours
  OR
- GOV 207 - International Politics 3 credit hours
- Liberal Arts Elective 3 credit hours

Semester Total: 12

Total Program Credits: 60

Homeland Security, CT.A.

Program Description

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 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.

Recommended Sequence

Fall Semester

- CRJ 206 - Criminal Law 3 credit hours
- COM 100 - Communications Technologies 4 credit hours
- CRJ 203 - Criminal Investigation 3 credit hours
- CRJ 223 - Homeland Security 3 credit hours
- CST 210 - Principles of Cybersecurity 3 credit hours

Total Program Credits: 16

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Hotel, Restaurant, and Tourism Management, A.A.S.

Program Description

The Hotel, Restaurant, and Tourism Management program provides Union 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:

- Demonstrate the ability to perform the essential 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 others, and resolve conflicts;
- Discuss fundamental principles of the hospitality and tourism industry in a diverse global environment;
- 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;
- Communicate effectively in oral, written, and electronic formats in hotel, restaurant, and tourism industries;
- Apply critical thinking, decision making skills, strategic planning, and problem-solving skills;
- Demonstrate information literacy through familiarity and the effective use of technical literature in the areas of Hotel, Restaurant, and Tourism Management;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Hotel, Restaurant, and Tourism Management.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 113 - Math Applications or higher* 3 credit hours**
- CST 100 - Introduction to Computer Applications 3 credit hours
- **HSM 100 - Introduction to the Hospitality Industry 3 credit hours**
- BUS 105 - Organization and Management 3 credit hours

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours

OR

- ENG 122 - Introductory Technical and Business Writing 3 credit hours
- HSM 110 - Food and Beverage Management 3 credit hours
- **HSM 120 - Managing Front Office Operations 3 credit hours**
- ACC 103 - Accounting I 3 credit hours
- BUS 200 - Small Business Management 3 credit hours

Semester Total: 15

Second Year

Fall Semester

- ENG 129 - Public Speaking 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours*

OR

- Social Science Gen Ed Requirement 3 credit hours*
- **HSM 240 - Hospitality Sales and Marketing 3 credit hours**
- **BUS 107 - Human Resources Management 3 credit hours**
- BUS 115 - Personal Finance 3 credit hours

OR

- BUS 215 - Excel for Business 3 credit hours

Semester Total: 15

Spring Semester

- HSM 205 - Planning and Control of Food and Beverage Operations 3 credit hours
- HSM 290 - Co-op Experience in Hospitality Management 3 credit hours
- BUS 110 - Business and Technology 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours*

OR

- Social Science Gen Ed Requirement 3 credit hours*
- PSY 101 - General Psychology 3 credit hours

Semester Total: 15

Total Program Credits: 60

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

Hotel, Restaurant, and Tourism Management, CT.A.

Program Description

The Hotel, Restaurant, and Tourism Certificate of Achievement is designed to provide the foundational industry-specific knowledge and skills. The Certificate of Achievement includes a broad range of concepts in key aspects of the industry such as the introduction to the hospitality industry, food and beverage management, and front office operations. The Certificate of Achievement is a career-oriented program that develops the expertise for entry into the Hotel, Restaurant, and Tourism field.

Upon successful completion of the Certificate of Achievement requirements, graduates will be able to:

- Research elements within the field of hotel, restaurant, and tourism management.
- Apply computer literacy skills to hotel, restaurant, and tourism industry projects.
- Implement communication, critical thinking, decision-making, and problem-solving skills within the field of hotel, restaurant, and tourism management.
- Demonstrate management, organization, time management, and code of ethics within the hotel, restaurant, and tourism industries.
- Examine the hotel industry to include front of the house management and food and beverage operations, as well as the business involved with the operations.
- Evaluate the various issues related to diversity, equity, and inclusion in the field of hotel, restaurant, and tourism.

After Union College

Graduates have the opportunity to continue on for a A.A.S. in Hotel, Restaurant, and Tourism Management or may start their careers 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 Hotel, Restaurant, and Tourism Management.

Recommended Sequence

First Year

Fall Semester

- CST 100 - Introduction to Computer Applications 3 credit hours
- **HSM 100 - Introduction to the Hospitality Industry 3 credit hours**
- BUS 105 - Organization and Management 3 credit hours

Semester Total: 9

Spring Semester

- HSM 110 - Food and Beverage Management 3 credit hours
- HSM 120 - Managing Front Office Operations 3 credit hours
- ENG 129 - Public Speaking 3 credit hours

Semester Total: 9

Total Program Credits: 18

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Interpreting Spoken Language, CT.

Program Description

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 College

Graduates will be prepared to enter the workforce as freelance or court interpreters by learning about how to succeed in the field of professional interpreting and translating.

Recommended Sequence

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- ENG 129 - Public Speaking 3 credit hours
- **Math, Science, Tech Gen Ed Requirement 3-4 credit hours**
- **INT 101 - Interpreting I 3 credit hours**
- TRN 101 - Introduction to Written Translation 3 credit hours

Semester Total: 15-16

Spring Semester

- INT 102 - Interpreting II 3 credit hours
- INT 105 - The Role of the Interpreter 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours

Semester Total: 15

Total Program Credits: 30-31

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Journalism and Public Relations, A.A.

Program Description

Option offered through Communications

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 current social and political issues and events, both orally and in writing;
- Explain the effective creative practices in the areas of planning, writing, design, and photography;
- Communicate visually, orally, and in writing, the various components in print and digital production;
- Apply knowledge 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;
- Demonstrate proficiency with current productivity software applicable to the field of journalism and public relations;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Journalism and Public Relations.

Other Communications Degrees Include:
Communications
Media

After Union College

Graduates can transfer to a four-year degree program and are eligible to take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
  OR
- **MAT 127 - Elementary Statistics 4 credit hours**
- COM 100 - Communications Technologies 4 credit hours
- **COM 101 - Mass Communications 3 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours (ENG 200-Level)
- **Lab Science Gen Ed Requirement 4 credit hours**
- **COM 102 - Reporting and News Writing 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours (ENG 200-Level)
- PSY 101 - General Psychology 3 credit hours
- History Gen Ed Requirement 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours
- **COM 107 - Publication Editing and Design 3 credit hours**

Semester Total: 15

Spring Semester

- COM 108 - Principles and Practices of Public Relations 3 credit hours
- COM Elective 3 credit hours
- COM Elective 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- History Gen Ed Requirement 3 credit hours

Semester Total: 15

Total Program Credits: 60

Journalism and Public Relations, CT.

Program Description

This program is designed as a foundation for Associate Degree study in Journalism and Public Relations, as well as an option for students who wish to enter the workforce in a shorter time than a traditional degree program takes to finish. 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 writers, editors, designers, and photographers in print and digital media fields.

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

- Analyze current social and political issues and events, both orally and in writing;
- Articulate visually, orally, and in writing, the various components of print and digital production;
- Demonstrate an advanced grasp of writing processes and techniques related to news reporting;
- Demonstrate the skills needed to evaluate and disseminate topics related to the field of public relations.

After Union College

Graduates can work in the fields of journalism and/or public relations, or continue study in the field. They may also pursue a broader Communications degree here at Union College.

Recommended Sequence

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- COM 100 - Communications Technologies 4 credit hours
- **COM 101 - Mass Communications 3 credit hours**
- **COM 108 - Principles and Practices of Public Relations 3 credit hours**
- COM 107 - Publication Editing and Design 3 credit hours

Semester Total: 16

Spring Semester

- COM 102 - Reporting and News Writing 3 credit hours
- COM 207 - Advanced Publication Editing and Design 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours

OR

- ENG 129 - Public Speaking 3 credit hours
- History Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours

Semester Total: 15

Total Program Credits: 31

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Liberal Arts, A.A.

Program Description

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:

- Employ the creative process to find meaning in global, local, and personal challenges and concepts;
- Apply approaches from the liberal arts to expose the meaning of the human experience;
- Explain the ethical implications of everyday issues;
- Utilize the skills of reasoning and analysis to solve problems;
- Communicate clearly orally and in writing;
- Use critical thinking to apply historical and literary concepts to contemporary social and cultural issues;
- Apply technology skills for the purpose of learning and evaluating research;
- Evaluate the various issues related to diversity, equity, and inclusion across a broad range of academic disciplines.

After Union 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

Fall Semester

- **ENG 101 - English Composition I 3 credit hours**
- Modern Language Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- History Gen Ed Requirement 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**

Semester Total: 16

Spring Semester

- **ENG 102 - English Composition II 3 credit hours**
- Modern Language Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- **COM 100 - Communications Technologies** 4 credit hours
- Liberal Arts Elective 3 credit hours

Semester Total: 16

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- Liberal Arts Elective 3 credit hours
- Liberal Arts Elective 3 credit hours
- **Liberal Arts 200-Level Elective** 3 credit hours

Semester Total: 16

Spring Semester

- Liberal Arts Elective 3 credit hours
- Liberal Arts 200-Level Elective 3 credit hours
- Liberal Arts 200-Level Elective 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours

Semester Total: 12

Total Program Credits: 60

Liberal Arts Electives – Choose a three-credit course from the following course subject prefixes: 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, A.S.

Program Description

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:

- 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;
- Communicate clearly orally and in writing;
- Use critical thinking to apply historical knowledge to contemporary social issues;
- Apply technological skills for the purpose of learning and research;
- Evaluate the various issues related to diversity, equity, and inclusion across academic disciplines.

After Union College

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- **ENG 101 - English Composition I 3 credit hours**
- History Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- Elective 3 credit hours

Semester Total: 16

Spring Semester

- **ENG 102 - English Composition II 3 credits**
- Social Science Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- Electives 6 credit hours

Semester Total: 16

Second Year

Fall Semester

- **Math, Science & Technology Gen Ed Requirement 4 credit hours**
- Elective Gen Ed Requirement 3 credit hours
- Electives 9 credit hours

Semester Total: 16

Spring Semester

- Elective Gen Ed Requirement 3 credit hours
- Electives 9 credit hours

Semester Total: 12

Total Program Credits: 60

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Liberal Studies, CT.

Program Description

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

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

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

After Union College

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- **ENG 101 - English Composition I 3 credit hours**
- Social Science Gen Ed Requirement 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- Electives 6 credit hours

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours

OR

- Humanities Gen Ed Requirement 3 credit hours
- **Math, Science, Technology Gen Ed Requirement 3-4 credit hours**
- Electives 6 credit hours

Semester Total: 15 or 16

Total Credits: 30-31

Mathematics, A.S.

Program Description

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;
- Examine the various issues related to diversity, equity, and inclusion in the field of mathematics.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- **PHY 101 - General Physics I 3 credit hours ****

AND

- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- **CST 161 - Computer Programming Fundamentals 4 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 172 - Unified Calculus II 4 credit hours**
- **PHY 102 - General Physics II 3 credit hours ****

AND

- **PHYL 102 - General Physics II Laboratory 1 credit hour**
- **CST 162 - Computer Algorithms 4 credit hours**

Semester Total: 15

Second Year

Fall Semester

- English 200-Level Literature Gen Ed 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- **MAT 265 - Linear Algebra 3 credit hours**
- **MAT 271 - Unified Calculus III 4 credit hours**
- CST 261 - Data Structures 4 credit hours

Semester Total: 17

Spring Semester

- MAT 248 - Probability and Statistics 3 credit hours
- MAT 267 - Discrete Mathematics 3 credit hours
- MAT 272 - Differential Equations 4 credit hours
- Social Science Gen Ed Requirement 3 credit hours

Semester Total: 13

Total Program Credits: 60

* 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.

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Mathematics Major Education Option, A.S.

Program Description

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 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;
- Examine the various issues related to diversity, equity, and inclusion in the teaching of mathematics.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 171* - Unified Calculus I 4 credit hours**
- **PHY 101 - General Physics I 3 credit hours**

AND

- **PHYL 111 - Mechanics Laboratory 1 credit hour**
- **CST 161 - Computer Programming Fundamentals 4 credit hours**

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **MAT 172 - Unified Calculus II 4 credit hours**
- **PHY 102 - General Physics II 3 credit hours**

AND

- **PHYL 102 - General Physics II Laboratory 1 credit hour**
- **CST 162 - Computer Algorithms 4 credit hours**

Semester Total: 15

Second Year

Fall Semester

- HIS 101 - Introduction to Western Civilization I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **MAT 271 - Unified Calculus III 4 credit hours**
- CST 261 - Data Structures 4 credit hours

Semester Total: 14

Spring Semester

- MAT 265 - Linear Algebra 3 credit hours
- MAT 267 - Discrete Mathematics 3 credit hours
- MAT 272 - Differential Equations 4 credit hours
- HIS 102 - Introduction to Western Civilization II 3 credit hours
- PSY 206 - Adolescent Psychology 3 credit hours

Semester Total: 16

Total Program Credits: 60

* 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, A.A.

Program Description

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:

- 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;
- Demonstrate proficiency with productivity software such as word processing and presentation management applications and apply them to the field of communications;
- Discuss and analyze current social and political issues and events, both orally and in writing;
- Demonstrate in writing the skills necessary to research the history of media;
- Utilize technology encountered in a professional television studio, video production facility, or radio station;
- Apply technology skills for the purpose of learning and evaluating research related to media;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Media.

After Union 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
- COM 100 - Communications Technologies 4 credit hours
- **COM 101 - Mass Communications 3 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- **COM 109 - Introduction to Film Study 3 credit hours**
- COM Elective* 3 credit hours

Semester Total: 16

Second Year

Fall Semester

- English 200-Level Humanities Gen Ed 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **COM 209 - The Evolution of Film 3 credit hours**
- COM Elective* 3 credit hours
- COM Elective* 3 credit hours

Semester Total: 15

Spring Semester

- COM 216 - Digital Video Editing and Multimedia Imaging 3 credit hours
- COM 200-Level Elective* 3 credit hours
- COM Elective* 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- History Gen Ed Requirement 3 credit hours

Semester Total: 15

Total Program Credits: 60

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

Audio Production: COM 103, COM 113, COM 213

Film and Television: COM 105, COM 106, COM 206

Multimedia: COM 105, COM 112, COM 212

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Medicinal Plant Chemistry, A.S.

Program Description

Option offered through Biology

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;
- Evaluate biological concepts related to diversity, equity, and inclusion in the Medicinal Plant industry.

After Union College

Graduates can take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Social Science Gen Ed Requirement - 3 credit hours
- **BIO 111 - General Biology I 4 credit hours**
- **CHE 111 - General Chemistry I 4 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Social Science Gen Ed Requirement - 3 credit hours

OR

- Humanities Gen Ed Requirement 3 credit hours
- **BIO 112 - General Biology II 4 credit hours**
- **CHE 112 - General Chemistry II 4 credit hours**

Semester Total: 14

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- **MAT 143 - Elementary Mathematical Analysis I 4 credit hours**

OR

- **MAT 171 - Unified Calculus I 4 credit hours**
- **CHE 211 - Organic Chemistry I 5 credit hours**
- BIO 113 - Plants, People, and Society 4 credit hours

Semester Total: 16

Spring Semester

- BIO 210 - Hydroponics 4 credit hours
- BIO 211 - Medicinal Plants 3 credit hours
- MAT 144 - Elementary Mathematical Analysis II 4 credit hours

OR

- MAT 172 - Unified Calculus II 4 credit hours
- CHE 212 - Organic Chemistry II 5 credit hours

Semester Total: 16

Total Program Credits: 60

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

Cooperative Programs in Professional Nursing, A.S.

By virtue of an agreement between Union College and Trinitas School of Nursing/RWJ Barnabas Health, Elizabeth, New Jersey, and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging, 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.

Admission to the cooperative Nursing programs is selective and competitive. Individuals who are interested in one of the Nursing programs can apply to the Health Science program at Union College and begin taking general education program requirements. Admission into the Health Science program does not guarantee admission into a Nursing program. Students with questions should contact the respective cooperative program admission's office.

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.

- **Trinitas School of Nursing/RWJ Barnabas Health and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging** 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/RWJ Barnabas Health** 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.
- **JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging** offers a day or evening Generic track in the nursing courses. The JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging 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 of Nursing and Medical Imaging 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 of Nursing and Medical Imaging also offers a Pathways to BSN Track in cooperation with Kean University. www.jfkmuhlenbergschools.org

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.).

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 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.

Nursing, JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging, A.S.

Program Description

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 of Nursing and Medical Imaging, Park Avenue and Randolph Road, Plainfield, N.J., 07061, visit the school's website https://www.jfkmuhlenbergschools.org/ email jfkmuhlenbergadmissions@hmhn.org, or call 908-668-2401.

End of Program Student Learning Outcomes

1. Demonstrate accountability, responsibility and integrity for the delivery of safe nursing care within legal, ethical, and regulatory framework in nursing practice.

2. Provide safe nursing care utilizing evidence-based practice to minimize risk or harm to diverse populations across the lifespan.

3. Provide education to individuals and families related to promotion, maintenance, restoration and health, and caring throughout the lifespan.

4. Collaborate with interdisciplinary healthcare team members to facilitate optimal patient outcomes by incorporating quality initiatives in all settings.

5. 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.

6. Demonstrate sound clinical judgment and reasoning in the delivery of patient centered care for a diverse patient population.

7. Utilize information technology to communicate, incorporate evidence-based practice, minimize errors, gather data, and support decisions for safe patient care.

After Union College

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

General Information

Curriculum

The School seeks to admit those candidates who are best qualified to meet the academic requirements of each of the Schools' tracks. Fully accredited by the Accreditation Commission for Education in Nursing (ACEN) and the New Jersey State Board of Nursing, the nursing program offers three tracks leading to eligibility for registered nurse licensure, the National Council Licensing Exam for Registered Nursing, and prepares the student for entry-level nursing positions in hospitals or comparable facilities. The three curricular tracks are the Generic: Day and Evening track, the Accelerated track and the LPN transition track. Finally, the LPN to RN track, is offered once per year for those candidates who have a current LPN license and are interested in continuing their education to an RN.

Matriculation

Students may matriculate as full time or part time students in the Generic program. Students enrolled in the Accelerated program must be enrolled as full time students. A student who pursues a minimum of 12 credit hours of academic work per semester is classified as full-time. Part-time status is any student who pursues less than 12 credit hours of academic work over semester.

Generic RN Program

The Generic Track is a 65-credit curriculum and students have the option of day or evening classes. Students are admitted for both the Fall and Spring semesters. There are no summer nursing classes offered in the Generic Track. Students have a maximum of eight (8) semesters to complete the program whether they are full-time or part-time. General education courses, sciences and humanities are completed at UCC. Transfer credits may be accepted into the program. Nursing courses are taken at the School of Nursing in Plainfield.

Accelerated Program

The Accelerated Track builds on existing knowledge and life experience. It is designed for individuals with a bachelor's level degree (or higher) who wish to change career goals without repetition of college courses. They must also earn a specified score on the School's entrance examination for consideration into this track. All general education (pre-clinical) requirements must be satisfied either through transfer and/or enrollment in the nursing program before beginning this program. When matriculating into the Accelerated Track, students attend day classes for three semesters over one calendar year, January through December, including the summer.

LPN to RN Track for Licensed Practical Nurses

The LPN to RN Track is designed for the licensed practical nurse (LPN) who wishes to continue studies to be eligible to sit for the registered nurse licensure examination (NCLEX-RN). The Track builds on existing knowledge, skills and strengths. Upon matriculation into this track, students must attend the LPN Transition Course (NURM 120). This annual, five week course begins at the end of May and finishes in June. Upon successful completion of the LPN to RN Track and the required pre-requisite and co-requisite courses, students will be eligible to enter the School of Nursing in the third nursing course (NURM 221).

Education Progression: Pathways to the BSN

Students may opt to apply for the Pathways to BSN program. The 'Pathways' provides an opportunity for those candidates who meet the admissions criteria to complete their BSN degree at Kean University after graduation from the SON.

The SON also has agreements with Wagner College, Chamberlain University, Grand Canyon University, Monmouth University, Montclair University, Rutgers, and Walden University.

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 and/or continue their educational pursuits.

Admission to the School of Nursing

Admission is selective and competitive. Individuals must apply during the Open Admissions dates. Interested individuals should visit the Schools' website www.jfkmuhlenbergschools.org for information about the Schools and required policies and procedures.

Admission to the Generic Track

Application for admission consideration for the Generic Track requires the following:

- Must have a cumulative GPA of 2.5 or higher in relevant courses.
- TEAS Entrance Exam scores of 58% or higher in Math and Reading.
- General education courses not need to be taken prior to applying to the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging.
- One may transfer up to 36 comparable credits (40 for those with a bachelor's degree), into the program, no grade lower than C is considered for transfer.

Admission to the Accelerated Track

Application for admission consideration for the Accelerated Track requires the following:

- Requires a Baccalaureate, or higher Degree.
- Must have a cumulative GPA of 2.7 or higher in relevant courses.
- TEAS Entrance Exam scores of 70% or higher in Math and Reading.
- Successful completion of all general education courses are required prior to applying to the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging.
- One may transfer up to 40 comparable credits into the program, no grade lower than C is considered for transfer.

Admission to the 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.
- Must have a cumulative GPA of 2.5 or higher in the relevant courses.
- TEAS Entrance Exam scores of 58% or higher in Math and Reading.
- General education courses not need to be taken prior to applying to the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging. However, successful completion of all general education courses are required prior to starting the transition course.
- One may transfer up to 36 comparable credits (40 for those with a bachelor's degree), into the program, no grade lower than C is considered for transfer. LPN applicants must take at least 24 credits at Union College.

Recommended Sequence - Day and Evening Divisions

Generic Track

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **BIO 105 - Anatomy and Physiology I* 4 credit hours**
- **NURM 101 - Introduction to Professional Nursing Concepts 4 credit hours**

Semester Total: 11

Spring Semester

- PSY 101 - General Psychology 3 credit hours
- **BIO 106 - Anatomy and Physiology II* 4 credit hours**
- **NURM 102 - Fundamentals of Professional Nursing Concepts 7 credit hours**

Semester Total: 14

Fall Semester

- PSY 204 - Lifespan Development 3 credit hours
- **BIO 108 - Microbiology* 4 credit hours**
- **NURM 103 - Essentials of Professional Nursing Concepts 7 credit hours**

Semester Total: 14

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- NURM 201 - Advanced Essentials Professional Nursing Concepts 7 credit hours

Semester Total: 13

Fall Semester

- NURM 202 - Synthesis of Professional Nursing Concepts 7 credit hours
- Humanities Gen Ed Requirement - 3 credit hours
- Humanities Gen Ed Requirement - 3 credit hours

Semester Total: 13

Nursing Credits: 32

General Education Credits: 33

Total Program Credits: 65

Accelerated Track

The Accelerated Track is three semesters.

Pre-Professional General Education courses are offered at Union College (if necessary).

Pre-Professional General Education Courses

- BIO 105 - Anatomy and Physiology I 4 credit hours *
- BIO 106 - Anatomy and Physiology II 4 credit hours *
- BIO 108 - Microbiology 4 credit hours *
- CHE 114 - Principles of Organic Chemistry and Biochemistry 4 credit hours **
- ENG 101 - English Composition I 3 credit hours
- ENG 102 - English Composition II 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- PSY 204 - Lifespan Development 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- NURM 100 - Mathematics for Pharmacology 1 credit hour
- Humanities Gen Ed Requirement (2) 6 credit hours

Credit Total: 38

Spring Semester
- NURM 141 - Accelerated Nursing – Spring 13 credit hours

Semester Total: 13

Summer Semester
- NURM 241 - Accelerated Nursing – Summer 11 credit hours +

Semester Total: 11

Fall Semester
- NURM 242 - Accelerated Nursing – Fall 13 credit hours

Semester Total: 13

Nursing Credits: 38

General Education Credits: 37

Total Program Credits: 75

* 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 10-week summer semester.

LPN to RN Track

Prerequisites

- BIO 105 - Anatomy and Physiology I 4 credit hours *
- BIO 106 - Anatomy and Physiology II 4 credit hours *
- BIO 108 - Microbiology 4 credit hours *
- CHE 114 - Principles of Organic Chemistry and Biochemistry 4 credit hours *
- ENG 101 - English Composition I 3 credit hours
- ENG 102 - English Composition II 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- PSY 204 - Lifespan Development 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours

Total Credits: 31

Summer Semester
- NURM 120 - LPN Transition Course 4 credit hours **

Semester Total: 4

Fall Semester
- NURM 221 - Nursing III 9 credit hours
- Humanities Gen Ed Requirement 3 credit hours

Semester Total: 12

Spring Semester
- Humanities Gen Ed Requirement 3 credit hours
- NURM 222 - Nursing IV 9 credit hours

Semester Total: 12

Nursing Credits: 38

General Education Credits: 37

Total Program Credits: 75

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

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

NURM 100
NURM 119
NURM 121
NURM 122

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Nursing, Trinitas School of Nursing/RWJ Barnabas Health, A.S.

Program Description

Students interested in receiving additional information about the Trinitas School of Nursing/RWJ Barnabas Health should contact Union College. The Cranford campus number is 908-709-7500; the Elizabeth campus number is 908-965-6050 or email nursing@ucc.edu. Information is available at www.trinitasschoolofnursing.org.

Trinitas School of Nursing/RWJ Barnabas Health 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.

After Union College

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

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 students have a maximum of 7 semesters to complete the nursing program from the time they enroll in NURE 105. LPN to RN students have a maximum of 6 semesters to complete the program from the time they enroll in NURE 213.

Generic RN Program

The Generic RN track of the School of Nursing is offered with day, evening, and weekend clinical sessions. 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 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 classes and weekend and evening clinical sessions. The admission process for this track is done once a year in the 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 (Bachelor of Science in Nursing) /RN-MSN (Master's of Science in Nursing)

Seamless academic progression to the RN-BSN and MSN degree programs are available to Trinitas students and graduates. Trinitas School of Nursing has a dual admission agreement with Kean University for their RN-BSN program. Trinitas School of Nursing students can enroll into Kean University to work toward their RN-BSN degree while working on their pre-licensure studies. St. Elizabeth University offers graduates admission to their RN-BSN and MSN programs. Drexel University, Thomas Edison State University and Rutgers University also provide an articulation process to help streamline Trinitas School of Nursing students to enroll in their 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

Individuals who are interested in the Trinitas School of Nursing Cooperative Program can apply to the Health Science program upon enrollment at Union College until they receive formal acceptance into one of the School of Nursing's program tracks: the generic track or the LPN to RN track. Admission to the nursing program is selective and competitive.

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 105 (Generic RN Track)
Application for admission consideration for NURE 105 requires the following:

- Attendance at a Trinitas Nursing Information Session within 12 months prior of application submission to Trinitas School of Nursing.
- A minimum cumulative score of 55% on the ATI TEAS Admission Exam.
- Cumulative GPA of 2.5 or higher (High school GPA within one year of graduation or Union College GPA).
- Successful completion or current registration in the NURE 105 co-requisite courses (Note: all science courses require a minimum grade of C).
- The quality points used in acceptance into the program are derived only from Union College courses that are part of the required Trinitas School of Nursing curriculum.
- Criminal background check clearance and urine drug screen, done by a Trinitas School of Nursing approved provider, must be clear/negative, before NURE 106, the first clinical course.

Admission to NURE 213 (LPN to RN Track)
Application for admission consideration for the LPN to RN track requires the following:

- Current unencumbered LPN license from any state or territory of the United States.
- Attendance at a Trinitas School of Nursing Information within 12 month prior of application submission to Trinitas School of Nursing.
- A minimum cumulative score of 55% on the ATI TEAS Admission Exam.
- Union 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).
- The quality points used in acceptance into the program are derived only from Union College courses that are part of the required Trinitas School of Nursing curriculum.
- Criminal background check clearance and urine drug screen, done by a Trinitas School of Nursing approved provider, must be clear/negative, before NURE 214, the first clinical course.

Additional Nursing Program Requirements
All nursing students are required to meet additional mandatory clinical requirements prior to enrollment in clinical nursing courses (Generic Track - NURE 106; LPN-RN Track – NURE 214).

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 or email trinitas@ucc.edu.

Recommended Sequence
For Full-Time Student Enrollment

Generic Curriculum
Day and Evening Divisions
NURE 105, NURE 106, NURE 207, NURE 208, and NURE 209 are offered during the Fall and Spring semesters.

Fall Semester

- **ENG 101 - English Composition I 3 credit hours**
- PSY 101 - General Psychology 3 credit hours
- **BIO 105 - Anatomy and Physiology I 4 credit hours**
- **NURE 105 - Foundational Concepts of Nursing 4 credit hours**

Semester Total: 14

Spring Semester

- PSY 204 - Lifespan Development 3 credit hours
- **BIO 106 - Anatomy and Physiology II 4 credit hours**
- **NURE 106 - Fundamental Concepts of Nursing 7 credit hours**

Semester Total: 14

Fall Semester

- SOC 101 - Principles of Sociology 3 credit hours
- **BIO 108 - Microbiology 4 credit hours**
- **NURE 207 - Introduction to Acute and Chronic Nursing Concepts 7 credit hours**

Semester Total: 14

Spring Semester

- **ENG 102 - English Composition II 3 credit hours**
- Humanities Gen Ed Requirement - 3 credit hours
- NURE 208 - Advanced Acute and Chronic Nursing Concepts 7 credit hours

Semester Total: 13

Fall Semester

- NURE 209 - Critical and Complex Nursing Concepts 7 credit hours
- Humanities Gen Ed Requirement 3 credit hours

Semester Total: 10

Credit Allocation:
Nursing Credits: 32
General Education Credits: 33

Total Program Credits: 65

The completion of developmental courses may be recommended by an academic advisor.

LPN to RN Curriculum

RN Completion Program for LPNs:
NURE 213, NURE 214, NURE 215, NURE 216, NURE 217, and NURE 218 are offered during the Fall and Spring semesters.

Licensed Practical Nurse Curriculum - 9 credits

Prerequisites

- **ENG 101 - English Composition I 3 credits**
- ENG 102 - English Composition II 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- PSY 204 - Lifespan Development 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- **BIO 105 - Anatomy and Physiology I 4 credit hours**
- **BIO 106 - Anatomy and Physiology II 4 credit hours**
- BIO 108 - Microbiology 4 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours

Total Credits: 33

Fall Semester

- NURE 213 - Transitional Professional Nursing Practice Concepts 4 credit hours

Semester Total: 4

Spring Semester

- NURE 214 - Acute and Chronic Medical/Surgical Nursing Concepts 7 credit hours

Semester Total: 7

Summer Session

- NURE 215 - Women's Health and Maternal/Newborn Nursing Concepts 3 credit hours
- NURE 216 - Acute and Chronic Pediatric Nursing Concepts 3 credit hours

Semester Total: 6

Fall Semester

- NURE 217 - Psychiatric/Mental Health Complex Nursing Concepts 3 credit hours
- NURE 218 - Medical/Surgical Critical and Complex Health Nursing Concepts 3 credit hours

Semester Total: 6

Credit Allocation:
Nursing Credits: 32
General Education Credits: 33

Total Program Credits: 65

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Paralegal Studies, A.S.

Program Description

The paralegal studies program at Union 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 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 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:

- Perform factual research incorporating computer technology;
- Prepare forms, pleadings, legal instruments, and litigation documents;
- Identify, analyze and evaluate legal issues;
- Write clearly and accurately according to the standards of the legal profession;
- Perform legal research using library resources and computer technology;
- Evaluate the various issues related to diversity, equity, and inclusion in the Paralegal field.

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 Applied Science degree program, and only with the approval of the Social Sciences, Business, and History Division.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
- **LGL 101 - Introduction to Paralegal Studies 3 credit hours**
- LGL 110 - Legal Research 3 credit hours
- LGL 111 - Legal Writing 3 credit hours

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- **LGL 120 - Contract Law 3 credit hours**

Semester Total: 13

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- GOV 201 - American Government and Politics 3 credit hours
  OR
- GOV 202 - American National Government 3 credit hours
- Social Science Gen Ed Requirement - 3 credit hours
- **LGL 220 - Litigation I 3 credit hours**
- LGL Elective 3 credit hours *

Semester Total: 15

Spring Semester

- LGL 140 - Property Law 4 credit hours
- LGL 215 - Law Office Technology 3 credit hours
- LGL 221 - Litigation II 3 credit hours
- Humanities Gen Ed Requirement - 3 credit hours
- ECO 201 - Principles of Economics I 3 credit hours
  OR
- ECO 202 - Principles of Economics II 3 credit hours

Semester Total: 16

Total Program Credits: 60

*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, CT.A.

Program Description

The paralegal studies program at Union 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 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 Social Sciences, Business, and History Division.

After Union 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.

Fall Semester

- **LGL 101 - Introduction to Paralegal Studies 3 credit hours**
- LGL 110 - Legal Research 3 credit hours
- LGL 111 - Legal Writing 3 credit hours
- **LGL 220 - Litigation I 3 credit hours**

Semester Total: 12

Spring Semester

- LGL 120 - Contract Law 3 credit hours
- LGL 140 - Property Law 4 credit hours
- LGL 221 - Litigation II 3 credit hours
- LGL 215 - Law Office Technology 3 credit hours
- LGL - Legal Elective 3 credit hours

Semester Total: 16

Total Program Credits: 28

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

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Paramedic Emergency Health Science, A.A.S.

Program Description

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/.

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

To contact CAAHEP:
Commission on Accreditation of Allied Health Education Programs
9355 - 113th St. N, #7709
Seminole, FL 33775
727-210-2350
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

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 course.
- 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 for acceptance into the program.
- Attendance at orientation is mandatory.
- 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 Paramedic Student Handbook which has policies and procedures that are specific to the program because of State and/or National mandates.

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 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 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.

Recommended Sequence

Prior to enrollment in the Paramedic Program, students need to have completed all developmental course work in English and Math.

Students are encouraged to complete all of the general education courses prior to enrollment, as the Paramedic Program is rigorous and time-intensive curriculum. Anatomy and Physiology I (BIO 105) is a mandatory prerequisite of Paramedic I. Anatomy and Physiology II (BIO 106) is a mandatory co-requisite of Paramedic I.

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **MAT 113 - Math Applications 3 credit hours**
- **BIO 105 - Anatomy and Physiology I 4 credit hours**

Semester Total: 13

Spring Semester

- **BIO 106 - Anatomy and Physiology II 4 credit hours**
- **PMD 110 - Paramedic I 11 credit hours**

Semester Total: 15

Summer I Semester

- ENG 102 - English Composition II 3 credit hours
- **PMD 113 - Paramedic Clinical I 2 credit hours**

Semester Total: 5

Summer II Semester

- PMD 114 - Paramedic Clinical II 3 credit hours

Semester Total: 3

Second Year

Fall Semester

- PMD 213 - Paramedic II 11 credit hours
- PMD 214 - Paramedic Clinical III 5 credit hours

Semester Total: 16

Spring Semester

- PMD 215 - Paramedic Field Internship 11 credit hours

Semester Total: 11

Total Program Credits: 63

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Photovoltaic (PV), CT.

Program Description

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[1], PV Site Auditor, and PV Commissioning.

The PV certificate also contributes to the furthering of academic growth beyond the certificate level by providing 20 credits of transfer towards an AAS in either Construction Engineering Technology or Electronics/ Electromechanical Engineering Technology.

[1]https://www.bls.gov/ooh/construction-and-extraction/solar-photovoltaic-installers.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 College

Graduates can transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- **MAT 143 - Elementary Mathematical Analysis I 4 credit hours**
- CST 115 - Introduction to Computer Programming 3 credit hours
- MET 109 - Computer-Aided Drafting 3 credit hours
- **EET 101 - Principles of DC Circuits 4 credit hours**

Semester Total: 14

Spring Semester

- ENG 101 - English Composition I 3 credit hours
- **CIT 214 - Construction Procedures 3 credit hours**
- EGG 107 - Understanding Sustainability & Green Technologies 3 credit hours

Semester Total: 9

Second Year

Fall Semester

- ARC 218 - Construction Methods and Materials 3 credit hours
- EET 270 - Photovoltaic (PV) Systems 4 credit hours

Semester Total: 7

Total Program Credits: 30

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Physical Therapist Assistant, A.A.S.

Program Description

The Physical Therapist 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 College

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

Recommended Sequence

Pre-Clinical Phase

- ENG 101 - English Composition I 3 credit hours *
- **BIO 105 - Anatomy and Physiology I 4 credit hours ***
- **MAT 119 - Algebra 4 credit hours ***
- PSY 101 - General Psychology 3 credit hours *

Semester Total: 14

Clinical Phase

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **PTA 115 - Functional Anatomy 3 credit hours**
- **PTA 130 - Physical Therapy Procedures I 6 credit hours**
- PTA 251 - Independent Living 2 credit hours
- PSY 204 - Lifespan Development 3 credit hours **OR**
- PSY 212 - Psychology of Adulthood and Aging 3 credit hours

Semester Total: 17

Summer Session I

- PTA 140 - Physical Therapy Procedures II 3 credit hours

Semester Total: 3

Summer Session II

- BIO 106 - Anatomy and Physiology II 4 credit hours

Semester Total: 4

Fall Semester

- PTA 217 - Clinical Seminar and Practice I 7 credit hours
- **PTA 220 - Physical Therapy Procedures III 6 credit hours**
- PTA 221 - Physical Therapy Procedures IV 4 credit hours

Semester Total: 17

Spring Semester

- PTA 223 - Clinical Seminar 2 credit hours
- PTA 224 - Clinical Practice II 12 credit hours

Semester Total: 14

Total Program Credits (including all pre-clinical course work): 69

* Pre-clinical 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, CT.

Program Description

The Practical Nursing Program at Union 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 College received continued accreditation on June 2023 through June 2031, from the New Jersey Board of Nursing. The Board may be contacted at:

New Jersey Board of Nursing
124 Halsey Street
PO Box 45010
Newark, NJ 07101
(973) 504-6430
https://www.njconsumeraffairs.gov/nur

Applicants may contact the Board of Nursing with inquiries regarding the nursing program.

In the event that a students' concerns are not perceived to have been resolved through the grievance process within the College, then students may address complaints about the Program to the Board of Nursing at the address above.

The program is also accredited by the National League for Nursing Commission for Nursing Education Accreditation (NLN CNEA) effective 2019-2025. This is a voluntary accreditation that recognizes the program's "ability to meet or exceed standards and criteria for educational quality".

NLN-CNEA- the National League for Nursing Commission for Nursing Education Accreditation
2600 Virginia Avenue, Washington, DC 20037
202-909-2526
www.nln.org

After Union College

Graduates of this program are eligible to take the NCLEX-PN examination for Practical Nurse Licensure. Articulation with RN programs is available for graduates who wish to continue their nursing education.

Recommended Sequence

First Year

Fall/Spring Semester

- ENG 101 - English Composition I 3 credit hours
- PSY 101 - General Psychology 3 credit hours
  OR
- PSY 102 - Psychology of Personality 3 credit hours
- **BIO 102 - Human Biology*** 4 credit hours
- **PNU 190 - Nursing Concepts** 5 credit hours

Semester Total: 15

Spring/Summer

- **PNU 191 - Adult Health I** 10 credit hours
- Free Elective 3-4 credit hours

Semester Total: 13-14

Second Year

Summer/Fall Semester

- PSY 204 - Lifespan Development 3 credit hours
  OR
- PSY 205 - Child Psychology 3 credit hours
- **PNU 210 - Maternal/Child, Pediatric, and Mental Health Nursing** 9 credit hours

Semester Total: 12

Fall/Spring Semester

- PNU 211 - Adult Health II & Role Transition 12 credit hours

Semester Total: 12

Total Program Credits: 52-53

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

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Psychology, A.A.

Program Description

Option offered through Liberal Arts

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;
- Evaluate evidence and ethical issues relating to psychology;
- Examine the complexity of sociocultural and global diversity;
- Analyze major concepts, theoretical perspectives, empirical findings, and historical trends in psychology;
- Apply basic research methods in psychology, including research design, data analysis, and interpretation;
- Solve problems related to behavior and mental processes by utilizing critical and creative thinking, skeptical inquiry, and the scientific approach;
- Illustrate information literacy by utilizing multiple media sources and technology, and by communicating effectively in a variety of formats;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Psychology.

After Union 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- History Gen Ed Requirement 3 credit hours
- **PSY 101 - General Psychology 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- **COM 100 - Communications Technologies 4 credit hours**
- SOC 101 - Principles of Sociology 3 credit hours
- **PSY 102 - Psychology of Personality 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- **PSY 204 - Lifespan Development 3 credit hours**
- PSY 207 - Social Psychology 3 credit hours
- SOC 102 - Social Problems 3 credit hours

Semester Total: 16

Spring Semester

- PSY 213 - (SOC 213) Social Research Methods 3 credit hours
- Liberal Arts Elective* 3 credit hours
- Liberal Arts Elective** 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours

Semester Total: 12

Total Program Credits: 60

Any Gen Ed Diversity Requirement: SOC 206 Recommended

* Liberal Arts Elective - Recommended PSY 200 Level Course 3 credit hours

**Liberal Arts Elective -Recommended SOC 200 Level 3 Credit Course

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Psychosocial Rehabilitation and Treatment, A.S.

Program Description

Psychosocial rehabilitation (PSR) is a comprehensive treatment strategy for meeting the needs of people with severe mental illnesses. PSR practitioners assist people in obtaining the skills, support and resources they will need to achieve success and satisfaction in their social, vocational, educational and independent living environments. The overall goals of this field are promotion of recovery, community integration, and improved quality of life for people coping with psychiatric disabilities. There are ample career opportunities for PSR practitioners in a variety of rehabilitation programs and community mental health settings. The knowledge and skills of the PSR practitioner qualify him/her to provide supportive advising, case management services, and vocational rehabilitation interventions. The practitioner is also prepared to facilitate skills training groups as well as psycho-education and support groups.

Rutgers SHRP 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 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 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 COLLEGE OR RUTGERS ADVISOR WHEN PLANNING YOUR COURSE SCHEDULE.

General Education Requirements - 30 Credits

- ENG 101 - English Composition I 3 credit hours
- **ENG 102 - English Composition II 3 credit hours**
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **PSY 204 - Lifespan Development 3 credit hours**
- **MAT 119 - Algebra 4 credit hours**
- COM 100 - Communications Technologies 4 credit hours
- BIO 102 - Human Biology 4 credit hours

Rutgers Requirements - 3 Credits

- UPR 101 (PSRT 1101) - Introduction to the Principles of Psychosocial Rehabilitation 3 credit hours
  - taken prior to entering professional phase

After Union 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

Fall Semester

- PSRT 1102 - Communication Techniques in Interviewing and Counseling 3 credit hours
- PSRT 1103 - Introduction to Group Dynamics 3 credit hours *
- **PSRT 1204 - Clinical Principles in Psychosocial Rehabilitation and Treatment 3 credit hours ***

Semester Total: 9

Spring Semester

- **PSRT 1019 - Clinical Practicum in Psychosocial Rehabilitation I 6 credit hours ***
- PSRT 2121 - Community Resource Management and the Individual with Severe Mental Illness 3 credit hours *

Semester Total: 9

Fall Semester

- PSRT 2019 - Clinical Practicum in Psychosocial Rehabilitation II 6 credit hours *
- PSRT 2231 - Emerging Topics in Psychosocial Rehabilitation and Treatment 3 credit hours *

Semester Total: 9

Total Program Credits: 60

*Students register through Rutgers for PSRT courses and pay Rutgers Undergraduate tuition rate and fees.

A total of 60 credits are required. The 30 credits of general education courses are provided by Union College or may be transferred from other schools. The Rutgers School of Health Related Professions provides the 30 credits of Psychosocial Rehabilitation and Treatment (PSRT) courses. Except for UPR 101 (PSRT 1101), students register at Rutgers for 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, A.A.

Program Description

Option offered through Business

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:

- Explain the application of macro-economic and micro-economic theories and concepts in a mixed market economy;
- Describe the principles governing ethical behavior in the public administration profession;
- Communicate effectively in written, verbal, and electronic formats;
- Analyze the principles and practices in the field of public administration management;
- Utilize technology as it applies to business practices and research;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Public Administration.

After Union 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- GOV 201 - American Government and Politics 3 credit hours
- **MAT 119 - Algebra 4 credit hours**
- ECO 201 - Principles of Economics I 3 credit hours
- **BUS 101 - Introduction to Contemporary Business 3 credit hours**
  OR
- **BUS 105 - Organization and Management* 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- History Gen Ed Requirement 3 credit hours
- **COM 100 - Communications Technologies 4 credit hours**
- **GOV 202 - American National Government 3 credit hours**
  OR
- **GOV 207 - International Politics 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- PHI 210 - Ethics 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- ACC 103 - Accounting I 3 credit hours
- BUS 107 - Human Resources Management 3 credit hours
- **BUS 215 - Excel for Business 3 credit hours**

Semester Total: 16

Spring Semester

- GOV 204 - Public Administration 3 credit hours
- URS 101 - Introduction to Urban Studies 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours

Semester Total: 12

Total Program Credits: 60

* BUS 105 recommended

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Radiography, A.S.

Program Description

JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging

By virtue of an agreement between Union College **and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging**, Plainfield, NJ., sponsored by JFK, Edison, NJ. Union 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 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 College. They are eligible to participate in all student activities at Union College and have the same rights and privileges as all other college students.

Admission to the Radiography Program
Admission is selective and competitive. Individuals must apply during the Open Admissions dates. Interested individuals should visit the Schools' **website www.jfkmuhlenbergschools.org for information about the Schools and required policies and procedures**.

Application for admission consideration for the Radiography Program requires the following:

- Must have a cumulative GPA of 2.5 or higher in relevant courses.
- TEAS Entrance Exam scores of 58% or higher in Math and Reading.
- General education courses not need to be taken prior to applying to the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging. However, successful completion of some general education courses are required prior to starting the professional Radiography course in the Fall semester.
- One may transfer up to 36 comparable credits (40 for those with a bachelor's degree), into the program, no grade lower than C is considered for transfer.
- Transfer of Anatomy and Physiology I and II is dependent on the time of completion of these courses. They are only transferable if they were taken <5 years prior to admission to the program.

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

- Successfully complete the American Registry of Radiologic Technologists Board Examination in Radiography;
- Exhibit the appropriate skills and competency of an entry level Radiographer including:
  - Competency in performing routine and nonroutine (trauma) examinations in Radiography
  - Practicing appropriate basic patient care
  - Utilizing proper radiation protection for their patients, themselves, peers and others
  - Demonstration of proper and effective communication skills while speaking and writing
- Practice appropriate professional ethics of a Radiographer;
- Demonstrate appropriate problem solving and critical thinking skills necessary to be a proficient healthcare provider;
- Understand the benefits of additional personal and professional growth and lifelong learning skills necessary for the changing field of Radiography.

After Union College and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging

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

- RNTM 101 - Medical Terminology 1 credit hour
- MAT 119 - Algebra 4 credit hours
- **MAT 143 - Elementary Mathematical Analysis I 4 credit hours**
  OR
- MAT 127 - Elementary Statistics 4 credit hours
- ENG 101 - English Composition I 3 credit hours
- **ENG 102 - English Composition II 3 credit hours**
- BIO 105 - Anatomy and Physiology I 4 credit hours
- **BIO 106 - Anatomy and Physiology II 4 credit hours**
- PSY 101 - General Psychology 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- PHY 125 - Elements of Physics 3 credit hours /PHYL 125 - Elements of Physics Laboratory 1 credit hour
  OR
- PHY 101 - General Physics I 3 credit hours / PHYL 111 - Mechanics Laboratory 1 credit hour
- CST 100 - Introduction to Computer Applications 3 credit hours
  OR
- CST 101 - Introduction to Information Systems 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours

Total General Education Credits: 39

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

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/Fall Semester

- RNTM 103 - Introduction to Medical Imaging 4 credit hours
- RADM 120 - Radiologic Procedures I 3 credit hours
- CLPR 901 - Clinical Practicum I – 2 days per week

Semester Total: 7

First Year/Spring Semester

- RADM 110 - Principles of Radiographic Exposure I 3 credit hours
- RADM 121 - Radiologic Procedures II 3 credit hours
- RNTM 102 - Health Care Today 2 credit hours
- CLPR 902 - Clinical Practicum II – 3 days per week

Semester Total: 8

First Year/Summer I

- RADM 122 - Radiologic Procedures III 2 credit hours
- RADM 135 - Radiation Biology 2 credit hours
- CLPR 903 - Clinical Practicum III – 3 days per week

Semester Total: 4

First Year/Summer II

- CLPR 904 - Clinical Practicum IV – 2-4 days per week

Second Year/Fall Semester

- RADM 211 - Principles of Radiographic Exposure II 3 credit hours
- RADM 212 - Radiographic Physics 3 credit hours
- RADM 223 - Radiologic Procedures IV 3 credit hours
- CLPR 905 - Clinical Practicum V – 3 days per week

Semester Total: 9

Second Year/Spring Semester

- RADM 201 - Radiographic Pathology 3 credit hours
- RADM 213 - Radiographic Equipment 3 credit hours
- RADM 224 - Radiologic Procedures V 3 credit hours
- RNTM 201 - Fundamentals of Computed Tomography 3 credit hours
- RNTL 201 - CT Skills Assessment 1 credit hour
- CLPR 906 - Clinical Practicum VI – 3 days per week

Semester Total: 13

Second Year/Summer I

- CLPR 907 - Clinical Practicum VII – 3 days per week

Second Year/Summer II

- CLPR 908 - Clinical Practicum VIII - 3 days per week

Total Professional Course Credits: 41

Total Program Credits: 80

NOTE: Junior Seminar will be taken first year summer semester and Senior Seminar will be taken in second year summer semester.

RNTM signifies courses offered to radiography, 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.

Remote Pilot and Drone Application, CT.

Program Description

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 certificaiton 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 119 - Algebra or Higher Level Math 4 credit hours**
- **EET 101 - Principles of DC Circuits 4 credit hours**
- EET 209 - (UAS 209) Drone Control Systems 3 credit hours
- **UAS 105 - Remote Pilot Operations 3 credit hours**

Semester Total: 17

Spring Semester

- CST 115 - Introduction to Computer Programming 3 credit hours
- **EET 111 - Digital Computer Fundamentals 4 credit hours**
- **EET 112 - (UAS 112) Sensors for Drones 3 credit hours**
- EET 212 - (UAS 212) IoT Applications for Drones 3 credit hours

Semester Total: 13

Total Program Credits: 30

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Respiratory Care, A.A.S

Program Description

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:

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

After Union 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

Pre-Clinical Phase*

- BIO 105 - Anatomy and Physiology I 4 credit hours
- PSY 101 - General Psychology 3 credit hours
- MAT 113 - Math Applications 3 credit hours

Semester Total: 10

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **RSP 101 - Fundamentals of Respiratory Care 5 credit hours**
- RSP 102 - Cardiopulmonary Pharmacology 2 credit hours
- RSP 110 - Cardiopulmonary Anatomy and Physiology 2 credit hours

Semester Total: 12

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **BIO 106 - Anatomy and Physiology II 4 credit hours**
- **RSP 111 - Fundamentals of Respiratory Critical Care 8 credit hours**

Semester Total: 15

Summer

- **RSP 112 - Cardiopulmonary Pathophysiology 3 credit hours**

Semester Total: 3

Second Year

Fall Semester

- RSP 201 - Cardiopulmonary Evaluation 3 credit hours
- **RSP 202 - Adult Critical Care 10 credit hours**
- RSP 210 - Long-Term, Home and Rehabilitation Care 2 credit hours

Semester Total: 15

Spring Semester

- RSP 211 - Neonatal Pediatric Respiratory Care 3 credit hours
- RSP 212 - Clinical Practice 7 credit hours
- RSP 213 - Special Topics Respiratory Care 4 credit hours

Semester Total: 14

Total Program Credits: 69

*Cumulative GPA for pre-clinical courses: 2.5 or higher; students must achieve a C+ or higher in BIO 105.

Social Services, A.S.

Program Description

An associate degree in Social Services from Union 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 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 College students to transfer without having to take additional associate-level undergraduate classes.

Students with a Social Services degree from Union College may also participate in entry-level professional positions.

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

- Illustrate cultural sensitivity through course work and behavior that reflect entry level professional readiness;
- 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;
- Demonstrate critical thinking, problem solving ability and ethical thinking through effective communication;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Social Services.

After Union College

Graduates can transfer to a bachelor's degree-granting institution and are eligible to take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **SOC 101 - Principles of Sociology 3 credit hours**
- **PSY 101 - General Psychology 3 credit hours**
- History Gen Ed Requirement 3 credit hours
- COM 100 - Communications Technologies 4 credit hours

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- **SOC 102 - Social Problems 3 credit hours**
- PSY 105 - Group Dynamics 3 credit hours
- PSY 102 - Psychology of Personality 3 credit hours
- **MAT 125 - Survey of Special Topics in Mathematics 4 credit hours**
  OR
- **MAT 127 - Elementary Statistics 4 credit hours**

Semester Total: 16

Second Year

Fall Semester

- **Lab Science Gen Ed Requirement 4 credit hours**
- **SOC 207 - Social Inequality 3 credit hours**
- HUS 101 - Community Resources in Human Services 3 credit hours
- PSY or SOC 200-Level Elective 3 credit hours*

Semester Total: 13

Spring Semester

- SOC 206 - Minorities in American Life 3 credit hours
- SOC 209 - Introduction to Social Policy and Welfare 3 credit hours
- SOC 213 - (PSY 213) Social Research Methods 3 credit hours
- PSY 212 - Psychology of Adulthood and Aging 3 credit hours
- PSY 207 - Social Psychology 3 credit hours

Semester Total: 15

Total Program Credits: 60

*** 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

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Sociology, A.A.

Program Description

Option offered through the Liberal Arts

Sociology is the scientific study of human society and social interaction. This program helps students understand and use sociological tools and insights to work effectively in a diverse society. The program is for students who plan to transfer to a four-year institution and major in Sociology or other related fields.

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

- Apply sociological concepts and theories to social phenomena presented in each Sociology course;
- Explain social, cultural and global variations;
- Apply sociological theories to the analysis of social institutions that influence human behavior;
- Incorporate sociological knowledge and research findings into written and oral presentations;
- Use critical thinking skills to analyze and solve social problems;
- Utilize the scientific methods and quantitative methodologies to gather and evaluate data and draw conclusions;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Sociology.

After Union 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 College has with four-year colleges and universities. See a transfer advisor for details.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- History Gen Ed Requirement 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- **SOC 101 - Principles of Sociology 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- **COM 100 - Communications Technologies 4 credit hours**
- PSY 101 - General Psychology 3 credit hours
- **SOC 102 - Social Problems 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- PSY 207 - Social Psychology 3 credit hours
- **SOC 206 - Minorities in American Life 3 credit hours**
- SOC 219 - Gender and Work 3 credit hours

Semester Total: 16

Spring Semester

- SOC 213 - (PSY 213) Social Research Methods 3 credit hours
- Liberal Arts Elective* 3 credit hours
- Liberal Arts 200-Level Elective** 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours

Semester Total: 12

Total Program Credits: 60

Math Gen Ed: recommended MAT 127

Lab Science Gen Ed: recommended BIO 101

* Liberal Arts Elective: recommended SOC 273

** Liberal Arts 200-Level Elective: recommended SOC 207 or SOC 209

Diagnostic Medical Sonography, A.S.

Program Description

JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging

By virtue of an agreement between Union College and **JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging**, Plainfield, NJ, Union 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 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 College. Diagnostic Medical Sonography courses are the primary responsibility of the program. Students must apply to 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 of Nursing and Medical Imaging for acceptance.

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 of Nursing and Medical Imaging Diagnostic Medical Sonography Program (Program Number 110144).

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

Admission to the Diagnostic Medical Sonography Program

Admission is selective and competitive. Individuals must apply during the Open Admissions dates. Interested individuals should visit the Schools' **website www.jfkmuhlenbergschools.org for information about the Schools and required policies and procedures**.

Application for admission consideration for the Diagnostic Medical Sonography Program requires the following:

- Must have a cumulative GPA of 2.5 or higher in relevant courses.
- TEAS Entrance Exam scores of 58% or higher in Math and Reading.
- General education courses not need to be taken prior to applying to the JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging. However, successful completion of some general education courses are required prior to starting the professional Diagnostic Sonography Imaging course in the Spring semester.
- One may transfer up to 36 comparable credits (40 for those with a bachelor's degree), into the program, no grade lower than C is considered for transfer. All professional courses must be passed with a C+ or better.

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 College and JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging

Upon completion graduates are eligible to sit for the credentialing examinations of the American Registry of Radiologic Technologists (ARRT) and the American Registry for Diagnostic Medical Sonography (ARDMS).

Graduates will also be prepared to advance to a Bachelor's Degree and will be counseled on an individual basis regarding this intention.

Recommended Sequence
24-Month Full-time Curriculum

Students Must Complete The General Educational Requirements For The Associate In Science Degree

General Education Requirements:

- BIO 105 - Anatomy and Physiology I 4 credit hours
- ENG 101 - English Composition I 3 credit hours
- **MAT 119 - Algebra 4 credit hours**
- **ENG 102 - English Composition II 3 credit hours**
- MAT 127 - Elementary Statistics 4 credit hours
- CST 100 - Introduction to Computer Applications 3 credit hours
  OR
- CST 101 - Introduction to Information Systems 3 credit hours
- ALH 201 - Pathophysiology & Health Care 3 credit hours
- **BIO 106 - Anatomy and Physiology II 4 credit hours**
- Humanities Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- PHY 101 - General Physics I 3 credit hours
  AND
- PHYL 111 - Mechanics Laboratory 1 credit hour
  OR
- PHY 125 - Elements of Physics 3 credit hours
  AND
- PHYL 125 - Elements of Physics Laboratory 1 credit hour

Total: 41

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.

Spring Semester

- DMSM 101 - Patient Care 2 credit hours
- RNTM 101 - Medical Terminology 1 credit hour

Semester Total: 3

Summer I & II

- DMSM 100 - Introduction to Clinical Sonography 2 credit hours
- DMSM 102 - Cross-sectional Anatomy 2 credit hours
- DMSM 103 - Ultrasound Physics and Instrumentation – Part I 3 credit hours
- CLPS 901 - Clinical Sonography I

Semester Total: 7

Fall Semester

- RNTM 102 - Health Care Today 2 credit hours
- DMSM 105 - Ultrasound of the Abdomen – Part I 3 credit hours
- DMSM 109 - Obstetrical Sonography – Part I 3 credit hours
- DMSM 104 - Ultrasound Physics and Instrumentation – Part II 3 credit hours
- CLPS 902 - Clinical Sonography II

Semester Total: 11

Spring Semester

- DMSM 106 - Ultrasound of the Abdomen – Part II 3 credit hours
- DMSM 117 - Obstetrical Sonography – Part II 3 credit hours

Semester Total: 6

Summer I & II

- DMSM 107 - Ultrasound of the Female Pelvis 3 credit hours
- DMSM 111 - Ultrasound of Superficial Structures I 3 credit hours
- CLPS 904 - Clinical Sonography IV

Semester Total: 6

Fall Semester

- DMSM 118 - Ultrasound of Superficial Structures II 3 credit hours
- DMSM 116 - Ultrasound Registry Review 3 credit hours
- CLPS 905 - Clinical Sonography V

Semester Total: 6

Total Professional Credits: 39

Total Program Credits: 80

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.

Milestone Courses
The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Sport Management, A.S.

Program Description

The program at Union 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 knowledge of the aspects of finance, human resources, marketing, budgeting, career exploration, and resume writing to 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;
- 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;
- Apply critical thinking, ethical reasoning, and quantitative reasoning skills to understand and resolve issues in sport management;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Sport Management.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 127 - Elementary Statistics 4 credit hours**
- COM 100 - Communications Technologies 4 credit hours
- **BSM 101 - Introduction to Sport Management 3 credit hours**
- BUS 105 - Organization and Management 3 credit hours

  OR
- BUS 107 - Human Resources Management 3 credit hours

Semester Total: 17

Spring Semester

- ENG 102 - English Composition II 3 credit hours

  OR
- ENG 122 - Introductory Technical and Business Writing 3 credit hours
- PSY 101 - General Psychology 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- **BSM 110 - The Evolution of American Sports 3 credit hours**

Semester Total: 13

Second Year

Fall Semester

- Humanities Gen Ed Requirement 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- SOC 101 - Principles of Sociology 3 credit hours
- **BSM 205 - Sports in Society 3 credit hours**
- **ACC 103 - Accounting I 3 credit hours**

Semester Total: 15

Spring Semester

- BSM 210 - Sport & Law 3 credit hours
- BSM 220 - Current Issues in Sports 3 credit hours
- BUS 208 - Principles of Marketing 3 credit hours
- BUS 290 - Co-op Education Experience in Business 3 credit hours *
- ECO 202 - Principles of Economics II 3 credit hours

Semester Total: 15

Total Program Credits: 60

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

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

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Supply Chain Management, A.S.

Program Description

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;
- Compare modes of transportation and related policies;
- Outline computer and supply chain security measures;
- Explain how technology is utilized in logistics and supply chain management;
- Communicate effectively in both oral and written forms for all business settings;
- Apply critical thinking, ethical reasoning, and quantitative reasoning skills to resolve issues in supply chain 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 supply chain management;
- Evaluate the various issues related to diversity, equity, and inclusion in the Supply Chain Management industry.

After Union College

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

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **CST 100 - Introduction to Computer Applications 3 credit hours**
- BUS 105 - Organization and Management 3 credit hours
- **SCM 101 - Introduction to Supply Chain Management 3 credit hours**
- ACC 103 - Accounting I 3 credit hours

Semester Total: 15

Spring Semester

- **Lab Science Gen Ed Requirement 4 credit hours**
- SCM 105 - Inventory Management 3 credit hours
- **SCM 110 - Logistics Technology 3 credit hours**
- BUS 110 - Business and Technology 3 credit hours

Semester Total: 13

Second Year

Fall Semester

- ECO 201 - Principles of Economics I 3 credit hours
- **MAT 143 - Elementary Mathematical Analysis I 4 credit hours**
- SCM 201 - Transportation Operations 3 credit hours
- **SCM 205 - Purchasing and Supply Chain Management 3 credit hours**
- BUS 201 - Business Law I 3 credit hours

Semester Total: 16

Spring Semester

- SCM 210 - Operations Management 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- ECO 202 - Principles of Economics II 3 credit hours
- MAT 246 - Business Statistical Analysis 4 credit hours

Semester Total: 16

Total Program Credits: 60

Supply Chain Management, CT.A.

Program Description

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 College

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

Recommended Sequence

First Year

Fall Semester

- **SCM 101 - Introduction to Supply Chain Management 3 credit hours**
- SCM 201 - Transportation Operations 3 credit hours
- **SCM 205 - Purchasing and Supply Chain Management 3 credit hours**

Semester Total: 9

Spring Semester

- SCM 105 - Inventory Management 3 credit hours
- SCM 110 - Logistics Technology 3 credit hours
- SCM 210 - Operations Management 3 credit hours

Semester Total: 9

Total Program Credits: 18

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Technical Studies, A.A.S.

Program Description

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;
- Examine the various issues of diversity, equity, and inclusion impacting the trades.

After Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- **MAT 119 - Algebra 4 credit hours***
- Up to 8 Technical Studies Credits Awarded[1] 8 credit hours

Semester Total: 15

Spring Semester

- ENG 102 - English Composition II 3 credit hours
  OR
- ENG 122 - Introductory Technical and Business Writing 3 credit hours
- **CST Gen Ed Requirement[2] 3 credit hours**
- Elective Technical[3] 4 credit hours
- Up to 8 Technical Studies Credits Awarded 8 credit hours

Semester Total: 18

Second Year

Fall Semester

- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours [4]**
- Elective Technical[3] 4 credit hours
- Up to 5 Technical Studies Credits Awarded 5 credit hours

Semester Total: 16

Spring Semester

- Elective Technical[3] 4 credit hours
- Humanities /Social Science /History Gen Ed Requirement 3 credit hours
- Up to 4 Technical Studies Credits Awarded 4 credit hours

Semester Total: 11

Total Program Credits: 60

* Higher course may be indicated by math placement test. Students will meet with an advisor to select an area of concentration from among all of the college's technically-oriented A.A.S. degree programs. An advisor for the selected concentration area will develop with each student a plan of study to include at least 10 credits from the concentration area.

[1] Between 3 and 25 credits may be earned as block credits for ACE evaluated corporate, industrial, or military training programs after review by faculty of a related program and/or the appropriate advisor. These credits will be posted to a student's Union College transcript on a matching basis as students earn credits for courses taken at Union College.

[2] Choose any 3 credit computer science OR computer information systems course from the list of Gen Ed courses in the current catalog.

[3] Upon consultation with the advisor, additional technical electives may be selected from the following areas: ARC, AST, BIO, CHE, CIT, CST, EET, GEY, MAT, and PHY, if required.

[4] Choose any 4 credit lab science course from the list of Gen Ed courses in the current catalog.

Theater Arts, A.A.

Program Description

Option offered through Liberal Arts

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 examine the various styles and periods of theater throughout history, develop skills in movement, voice, and acting, and explore the potential career paths in the theatre. Students will demonstrate their acting skills in various performances. Students will also watch live performances and analyze them 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 and potential careers in the theatre;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Theater.

After Union College

Graduates may transfer to a four-year college or university and are eligible to take advantage of the many transfer/articulation agreements Union 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- FIA 124 - Theater Appreciation 3 credit hours
- **FIA 127 - Introduction to Acting 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- **COM 100 - Communications Technologies 4 credit hours**
- FIA 132 - Introduction to Dramatic Literature 3 credit hours
- **FIA 227 - Advanced Acting 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- FIA 105 - Music Appreciation 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- Liberal Arts Elective* 3 credit hours
- **Liberal Arts 200-Level Elective** 3 credit hours**

Semester Total: 16

Spring Semester

- FIA 232 - Modern and Contemporary Dramatic Literature 3 credit hours
- Liberal Arts 200-Level Elective** 3 credit hours
- History Gen Ed Requirement 3 credit hours
- PSY 101 - General Psychology 3 credit hours

Semester Total: 12

Total Program Credits: 60

* Liberal Arts Elective: recommended FIA 108

** Liberal Arts 200-Level Elective: recommended ENG 235 and FIA 226

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

Visual Arts, A.A.

Program Description

Option offered through Liberal Arts

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;
- Evaluate the various issues related to diversity, equity, and inclusion in the field of Visual Arts.

After Union 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 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

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Modern Language Gen Ed Requirement 3 credit hours
- History Gen Ed Requirement 3 credit hours
- **Math Gen Ed Requirement 4 credit hours**
- **FIA 109 - Introduction to Drawing 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- History Gen Ed Requirement 3 credit hours
- **Lab Science Gen Ed Requirement 4 credit hours**
- FIA 111 - Art History Survey I 3 credit hours
  OR
- FIA 112 - Art History Survey II 3 credit hours
- **FIA 110 - Introduction to Painting 3 credit hours**

Semester Total: 16

Second Year

Fall Semester

- PSY 101 - General Psychology 3 credit hours
- **COM 100 - Communications Technologies 4 credit hours**
- FIA 108 - Appreciation of Art 3 credit hours
- **FIA 115 - Fundamentals of Figure Drawing 3 credit hours**
- Liberal Arts Elective* 3 credit hours

Semester Total: 16

Spring Semester

- Liberal Arts 200-Level Elective* 3 credit hours
- ENG 128 - The Dynamics of Communication 3 credit hours
  OR
- ENG 129 - Public Speaking 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- Diversity Gen Ed Requirement 3 credit hours

Semester Total: 12

Total Program Credits: 60

***Recommended Liberal Arts Electives**

FIA 104 - Fundamentals of 2D Design
FIA 116 - Fundamentals of Painting
FIA 122 - Introduction to Film Photography
FIA 123 - Introduction to Color Film Photography
FIA 125 - Introduction to Digital Imaging
FIA 128 - Introduction to Illustration
FIA 222 - Advanced Black-and-White Film Photography
FIA 225 - Advanced Digital Imaging
FIA 226 - Business of Arts
FIA 228 - Advanced Illustration

Web and Mobile Application Development, A.S.

Program Description

Option offered through Computer Information Systems and Technology

The Web and Mobile Application Development program option is offered through the Computer Information Systems and Technology, A.S. degree. This innovative program is designed for students who would like to specialize in application development while pursuing an information systems and technology degree. The curriculum develops a strong foundation in information systems, database management, and systems analysis and design while students learn how to design and develop web-based and mobile applications.

Students will study and gain experience with programming languages and frameworks, with the design of user interfaces, and with topics such as networking, infrastructure, and security concerns. Students will be prepared for the new technologies that are constantly being developed.

This course of study is supported by relevant business, written and oral communications, and general education courses providing students the background in critical thinking and entrepreneurial savvy to apply to a variety of challenging problems to today's technology needs.

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

- Develop a mobile or web-based application from conception to completion, using a consistent and branded user experience;
- 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 within a business environment;
- Examine the various issues of diversity, equity, and inclusion impacting the field of Web and Mobile Application Development.

After Union College

Graduates will work as mobile or web-based application developers or transfer to a four-year degree program in any number of computer science or information systems and technology programs.

Recommended Sequence

First Year

Fall Semester

- ENG 101 - English Composition I 3 credit hours
- Math Gen Ed Requirement 4 credit hours *
- **CST 115 - Introduction to Computer Programming 3 credit hours**
- ACC 103 - Accounting I 3 credit hours
- **BUS 105 - Organization and Management 3 credit hours**

Semester Total: 16

Spring Semester

- ENG 102 - English Composition II 3 credit hours
- Math Gen Ed Requirement 4 credit hours *
- **Lab Science Gen Ed Requirement 4 credit hours**
- CST 101 - Introduction to Information Systems 3 credit hours
- **CST 140 - Introduction to iOS Development 3 credit hours**

Semester Total: 17

Second Year

Fall Semester

- ENG 122 - Introductory Technical and Business Writing 3 credit hours

  OR
- ENG 128 - The Dynamics of Communication 3 credit hours

  OR
- ENG 129 - Public Speaking 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours
- **CST 141 - App Development I 3 credit hours**
- CST 202 - Systems Analysis and Design 3 credit hours
- **CST 204 - Database Management Systems 3 credit hours**

Semester Total: 15

Spring Semester

- CST 142 - App Development II 3 credit hours
- CST 212 - Programming for Mobile Devices 3 credit hours
- Humanities Gen Ed Requirement 3 credit hours
- Social Science Gen Ed Requirement 3 credit hours

Semester Total: 12

Total Program Credits: 60

* MAT 119 or higher level math. Transfer students should consult with their transfer institution.

Milestone Courses

The milestones **(in bold)** identify critical courses for timely progress and the semester in which the course should be completed for on-time graduation. Milestone course grades **< 2.0** should be discussed with an advisor.

YOUR GUIDE TO UNION COLLEGE'S COURSE DESCRIPTIONS

Course Descriptions

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(s): 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): 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 180 hours in an accounting position with a local business or industry, with or without compensation. If an externship cannot be arranged, a term project on or off campus will be assigned. An elective may be substituted. This course is only open to matriculated students in the A.A.S. Accounting degree program. Students must arrange placement with the Division prior to enrolling in the course.
Prerequisite(s): ACC 203, or the equivalent. Division approval required
180 contact 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(s): College-entry level competency in English and Math
3 lecture hours per week
3 credit hours

ARB – Arabic

ARB 101 - Beginning Arabic I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

ARB 102 - Beginning Arabic II
▲ = Fulfills a **General Education** Requirement
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(s): 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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
3 lecture and 5 laboratory hours per week
5 credit hours

ARC 102 - Architectural Design II
In this course, the student engages in a further exploration of architectural design issues, examining the impact of the environment on physical and mental health, user-groups and their responses to environments, and architectural design as the expression of social values, cultural patterns, and historical heritage. This course also covers the execution and criticism of a series of related architectural problems and projects. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): ARC 101, or approval of Division
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(s): ENG 096, if required
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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Execution and project reviews will be conducted in a group format. Students must register for a lab component of this course.
Prerequisite(s): ARC 102, or approval of Division
2 lecture and 3 laboratory hours per week
3 credit hours

ARC 206 - Architectural 3D Design
This course covers the more advanced aspects of Computer Aided Design of architecture and design projects. Students will complete projects involving the resolution of a more complex set of design issues. They will use advanced applications of Computer Aided Design (CAD) and three-dimensional modeling to construct a design project and presentation layout from start to finish. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Execution and project reviews will be conducted in a group format. Students must register for a lab component of this course.
Prerequisite(s): ARC 205, or approval of Division
2 lecture and 3 laboratory hours per week
3 credit hours

ARC 210 - Portfolio Development and Presentation Methods
This course will provide the architecture and design student with the foundation to prepare a design portfolio. The student will be encouraged to organize a comprehensive assemblage of work. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): ARC 102, or approval of Division
1 lecture and 3 laboratory hours per week
2 credit hours

ARC 218 - Construction Methods and Materials
This course provides 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.)
Prerequisite(s): ENG 096 and MAT 022, if required
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(s): MAT 143
3 lecture hours per week
3 credit hours

ASL – American Sign Language

ASL 101 - American Sign Language I
This course is designed to introduce the student to American Sign Language, the visual-gestural language of Deaf persons, and Deaf Culture and to develop receptive and expressive communication skills with incorporation of visual-gestural techniques, ASL vocabulary, basic rules of grammar, syntax and some cultural features of the Deaf community.
Prerequisite(s): ENG 097, if required. Students whose records and tests indicate the need for review in the fundamentals of language will be assigned to Communication skills courses.
Co-requisite(s): ASL 102, except when taken as modern language requirement only
3 lecture hours per week
3 credit hours

ASL 102 - Visual-Gestural Communication
▲ = Fulfills a General Education Requirement
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(s): ENG 097, if required
Co-requisite(s): 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(s): ASL 101
Co-requisite(s): 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(s): ASL 101 and ASL 102
Co-requisite(s): 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 he 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.
Prerequisite(s): ASL 103 and ASL 104
Co-requisite(s): 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(s): ASL 103
Co-requisite(s): ASL 200 and 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(s): 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(s): ASL 103
Co-requisite(s): ASL 200 and ASL 201, or Permission of Division's Dean Office
1 lecture hour per week
1 credit hour

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(s): ASL 201 and ASL 205
Co-requisite(s): 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(s): ASL 201 and ASL 205, or permission of Division Dean's office
3 lecture hours per week
3 credit hours

ASL 211 - Mentoring – Skills Development for American Sign Language-English Interpreters
This course is designed as a supervised mentoring for students with a certificate of completion or degree in ASL-English Interpreting or three years of experience as a community and/or educational interpreter. Students will design specific skill development goals to focus on during the course. Emphasis will be on application of lean and rich American Sign Language features, i.e., fingerspelling, vocabulary, use of space, classifiers, Prosody, Interpreting (ASL to English and English to ASL) in interpreting, based on the students' specific skill development goals. Students will apply self-assessment tools for maintaining skills enhancement. Knowledge and skills sets in ASL/English interpreting may include Bilingual/multilingual skills, meaning management skills (interpreting/transliterating), ethical and professional decision-making, professional management and business skills, and/or new specialization, i.e., medical, business, mental health, legal interpreting, or working towards a certification.
Prerequisite(s): Permission of Division Dean's office
3 credit hours

AST – Astronomy

AST 101 - Astronomy of the Solar System
▲ = Fulfills a General Education Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): ENG 096, if required
3 lecture hours and 3 laboratory hours per week
4 credit hours

AST 102 - Astronomy Beyond the Solar System
▲ = Fulfills a General Education Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): ENG 096, if required
3 lecture hours and 3 laboratory hours per week
4 credit hours

AUT – Automotive Technology

AUT 100 - Automotive Fundamentals
This course is an introduction to basic automotive fundamentals. Students will be taught safety, computer software and information retrieval from service manuals and business based software programs, basic hand tools, power tools, specialty tools, and their uses and applications. Fasteners and thread repair techniques will also be covered. Basic car component identification, services, and maintenance will also be presented to the students. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. The basics of two and four wheel alignment and the related geometry will be taught to the students during the wheel alignment segment of the course. Students will learn strategy-based diagnostic routines, in order to interpret and verify customer concerns and to perform tests to determine the causes of problems. Students will perform hands-on repairs related to tires, steering and suspension components as well as actual wheel alignments.
3 lecture and 3 laboratory hours per week
4 credit hours

AUT 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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. 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). Students must register for a lab component of this course.
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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): AUT 121
3 lecture and 3 laboratory hours per week
4 credit hours

AUT 131 - Automotive Engine Performance 1
This course is an introduction to the basic interrelationship of the engine, ignition, fuel, and exhaust systems that is called, engine performance. This course will cover the basics of the ignition system, basic engine operation, basic fuel and its delivery. The byproduct of their united functions which is exhaust and emissions will be discussed. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Basic diagnostics and maintenance of these systems will be taught. Students must register for a lab component of this course.
Prerequisite(s): AUT 121
3 lecture and 3 laboratory hours per week
4 credit hours

AUT 201 - Engine Repair
This course is designed to introduce the student to engine construction, diagnosis, and repair/rebuilding procedures. The student will learn the basic construction and operation of a four stroke engine, types, classifications, and ratings. Components, hardware, and service tools that are part of the short block assembly and valve train will be discussed. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): AUT 100, or equivalent experience and approval of Division
3 lecture and 3 laboratory hours per week
4 credit hours

AUT 202 - Automotive Electrical 2
This course will build on the basic applied electrical principles from Automotive Electrical 1, and apply them to individual systems of the automobile. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): AUT 121
3 lecture 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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Constant-velocity axles and driveshaft overhaul will be covered. Included will be a section on diagnostics, noise, and vibration causes and repairs. Students must register for a lab component of this course.
Prerequisite(s): 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.
Prerequisite(s): 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 an externship of approximately 180 hours in an automotive technology position with a dealership, independent or specialty auto shop, chain store, municipality, fleet or corporate facility, with or without compensation. Students will acquire knowledge of industry and workplace-relevant skills. Students should take this course in the last year of their program. This course is only open to matriculated students in the A.A.S. Automotive Technology or program. Students must arrange placement with the Division prior to enrolling in the course.
180 contact hours
3 credit hours

BIO – Biology

BIO 101 - Introduction to Biology
▲ = Fulfills a General Education Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.

This course does not fulfill the Biology elective requirements for Biology majors.
3 lecture hours and 3 laboratory hours per week
4 credit hours

BIO 102 - Human Biology
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. This course is not open to students who have taken BIO 105-BIO 106. Students must register for a lab component of this course.
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 103 - Environmental Science
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 104 - A Survey of the Animal Kingdom
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. One or more all day field trips on a weekend may be required in lieu of some regularly scheduled lab sessions. Students must register for a lab component of this course.
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 105 - Anatomy and Physiology I
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): ENG 097, if required
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 106 - Anatomy and Physiology II
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. It will also foster an attitude of scientific inquisitiveness and reasoning. Students must register for a lab component of this course.
Prerequisite(s): BIO 105
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 108 - Microbiology
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): BIO 105, or one semester of college-level chemistry
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 111 - General Biology I
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): ENG 097, if required
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 112 - General Biology II
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): ENG 097, if required, and BIO 111
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): ENG 097, if required
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
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Certain labs will be conducted as all-day field experiences on weekends. Students must register for a lab component of this course.
3 lecture and 3 laboratory hours per week
4 credit hours

BIO 208 - Ecology
▲ = Fulfills a **General Education** Requirement
This is an introduction to basic ecological principles and techniques. Biotic inter-relationships are emphasized in the study of aquatic and terrestrial communities. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
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 includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Labs include a hands-on experiment for designing and building a hydroponic system, budgeting, statistics, and growing microgreens. Students must register for a lab component of this course.
Prerequisite(s): CHE 112
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.
Prerequisite(s): BIO 111 and BIO 112, or approval of Division
3 lecture hours per week
3 credit hours

BIO 240 - Genetics
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Additionally, students will develop skills in critical thinking, scientific inquiry, problem solving, and scientific communication. Students must register for a lab component of this course.
Prerequisite(s): BIO 111 and BIO 112, or permission of Division Dean's office
3 lecture and 3 laboratory hours per week
4 credit hours

BLC – Blockchain Technology

BLC 171 - Blockchain Fundamentals
This course provides students with a fundamental yet broad overview of the essential concepts of the blockchain industry, the history, the philosophy of decentralization behind blockchain, and the main discussions happening within the blockchain environment. Topics covered in the Blockchain Fundamentals course include a basic understanding of the functions of blockchain. Students will learn about potential applications of blockchain and the impact it could have on the business world.
3 lecture hours per week
3 credit hours

BLC 232 - Blockchain Technologies
This course provides students with a deeper understanding of blockchain technologies and their respective applications. Blockchain Technologies examines in depth the capabilities and limitations of the technology, enabling students to assess which business problems it can solve. Topics covered include how blockchain is used to transform contemporary businesses, and how to think about blockchain and its capabilities. Students will discover the problems blockchain technologies aim to solve and determine how they can support business goals and objectives.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

BLC 270 - Blockchain Decision Making
This course provides students with an understanding of blockchain decision making, and the knowledge to discern what types of business organizations are suitable for blockchain technology. This course helps students to understand how blockchain decision making adds value to businesses, and covers topics on decision-making strategies, knowledge of tools and the different protocols used in decision making. The course also helps understand the various conditions and processes under which blockchain decision making occurs in business.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

BSM – Sport Management

BSM 101 - Introduction to Sport Management
This course is an overview of sport management and presents both the theoretical foundations and the subsequent 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(s): 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.
Prerequisite(s): BSM 101 and ENG 101
3 lecture hours per week
3 credit hours

BSM 220 - Current Issues in Sports
This course offers a comprehensive study of current issues in sports. A strong emphasis will be placed on current economic issues 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(s): 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(s): 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(s): ENG 097, if required
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(s): ENG 097, if required
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(s): ENG 097, if required
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(s): ENG 097, if required
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(s): ENG 097, if required
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(s): ENG 097, if required
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(s): ENG 097, if required
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.
Prerequisite(s): 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.
Prerequisite(s): ENG 097, BUS 101, and BUS 208
3 lecture hours per week
3 credit hours

BUS 215 - Excel for Business
This course offers students the opportunity to master the advanced functionality of Microsoft Excel, and to apply those skills to genuine business applications and office management tasks. The course will enhance students' reporting skills such as analyzing and charting financial data. Students build a worksheet from a beginning level to an intermediate level. The course is project-based and provides real world analysis of company sales, inventory valuation, and revenue reporting.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

BUS 216 - Access for Business
This course prepares students to solve business problems by moving beyond the basic point-and-click skills and to think critically about realistic business situations. In this course, students combine software analysis with their own decision-making abilities to meet business challenges with success. Students are introduced to a relational database software that allows the student to organize and report on business data. Students create a database and learn to maximize productivity. Some of the topics included are creating a database; organizing and retrieving business data; working with tables; creating queries and advanced queries; developing reports for accounting and sales; entering criteria; sorting; structure; validation; referential integrity; and macros.
Prerequisite(s): ENG 097, if required
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 180 hours in a business position with a local organization in the field, with or without compensation. Students will acquire knowledge of industry and workplace-relevant skills. A weekly seminar on campus is included. Students should take this course in the last year of their program. This course is only open to matriculated students in the A.A.S. and A.S. degree business programs. If an externship cannot be arranged, a term project on or off campus will be assigned. An elective may be substituted. Students must arrange placement with the Division prior to enrolling in the course.
Prerequisite(s): Division approval required
180 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(s): 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
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
3 lecture and 3 laboratory hours per week
4 credit hours

CHE 107 - The Chemistry of Forensic Science
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students will analyze 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. Students must register for a lab component of this course.
3 lecture and 3 laboratory hours per week
4 credit hours

CHE 111 - General Chemistry I
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students who have not had high school chemistry are recommended to take CHE 101. Students must register for a lab component of this course.
3 lecture and 3 laboratory hours per week
4 credit hours

CHE 112 - General Chemistry II
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): CHE 111, or approval of Division
3 lecture and 3 laboratory hours per week
4 credit hours

CHE 114 - Principles of Organic Chemistry and Biochemistry
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students who have not had high school chemistry are recommended to take CHE 101. Students must register for a lab component of this course.
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.
Prerequisite(s): 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(s): 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(s): 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(s): Division approval required
3 lecture hours per week
3 credit hours

CHE 211 - Organic Chemistry I
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): CHE 112, or approval of Division
3 lecture and 4 laboratory hours per week
5 credit hours

CHE 212 - Organic Chemistry II
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): CHE 211, or approval of Division
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(s): 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(s): Division approval required
3 lecture hours per week
3 credit hours

CHN – Chinese

CHN 101 - Beginning Mandarin Chinese I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

CHN 102 - Beginning Mandarin Chinese II
▲ = Fulfills a **General Education** Requirement
This is 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(s): CHN 101, or 2 years high school Chinese
3 lecture hours per week
3 credit hours

CHN 111 - Intermediate Mandarin Chinese I
▲ = Fulfills a **General Education** Requirement
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(s): CHN 101 and CHN 102, or three years high school Chinese
3 lecture hours per week
3 credit hours

CHN 112 - Intermediate Mandarin Chinese II
▲ = Fulfills a **General Education** Requirement
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(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): MAT 119
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.
Prerequisite(s): CIT 210 and MET 109
3 lecture hours per week
3 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. Students must register for a lab component of this course.
Prerequisite(s): 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).
Prerequisite(s): ENG 096, if required, 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(s): MET 112
3 lecture hours per week
3 credit hours

CIT 290 - Co-op Education Experience in Construction Engineering Technology
This course is an externship of approximately 180 hours in a position related to surveying or civil/construction engineering technology with a municipal engineering organization, building contractor, surveyor, architect, or a private engineering firm, with or without compensation. Students will acquire knowledge of industry and workplace-relevant skills. Students should take this course in the last year of their program. This course is only open to matriculated students. Students must arrange placement with the Division prior to enrolling in the course.
Prerequisite(s): Division approval required
180 contact hours
3 credit hours

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
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): 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(s): 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(s): 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(s): ENG 097, 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(s): 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.
Prerequisite(s): Completion of all developmental English requirements.
3 lecture hours per week
3 credit hours

COM 109 - Introduction to Film Study
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): 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.
Prerequisite(s): ENG 097, if required, and 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(s): 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(s): COM 107
3 lecture hours per week
3 credit hours

COM 209 - The Evolution of Film
▲ = Fulfills a **General Education** Requirement
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 industry software from the Adobe Creative Cloud Collection including Illustrator, imaging in Photoshop, web design in Dreamweaver, animation in Animate and Spark, and audio editing in Adobe Soundbooth. Application of this software will develop the multimedia professional's toolkit.
Prerequisite(s): 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(s): 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 industry software tools including Adobe Premiere Pro. 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 180 hours in a 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.
180 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(s): ENG 096, if required
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(s): ENG 096, if required
3 lecture hours per week
3 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(s): ENG 096, if required
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(s): ENG 096, if required
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(s): ENG 096, if required
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 statutes, 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(s): ENG 096, if required
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(s): ENG 096, if required
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(s): ENG 096, if required
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(s): 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(s): 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.

CST – Computer Science and Technology

CST 100 - Introduction to Computer Applications
▲ = Fulfills a **General Education** Requirement
This course introduces students to basic computer concepts. The course also focuses on a current version of Microsoft Office Professional. Students experience hands-on instruction in word processing, spreadsheets, databases, and professional presentations. This course prepares students to succeed in both college and the business world by enabling them to write reports, analyze and chart data, and prepare presentations.
Prerequisite(s): ENG 096, and MAT 017 or MAT 019 or MAT 022, if required
3 lecture hours per week
3 credit hours

CST 101 - Introduction to Information Systems
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 096, and MAT 019 or MAT 022, if required
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.
Prerequisite(s): ENG 096, and MAT 017 or MAT 019 or MAT 022, if required
3 lecture hours per week
3 credit hours

CST 115 - Introduction to Computer Programming
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 096, and MAT 019 or MAT 022, if required
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.
Prerequisite(s): ENG 096, and MAT 019 or MAT 022, if required
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.
Prerequisite(s): ENG 096, if required, and 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(s): ENG 097, and MAT 017 or MAT 019/MAT 021 or MAT 022, if required
3 lecture hours per week
3 credit hours

CST 140 - Introduction to iOS Development
This course introduces students to the fundamentals of iOS application development using the Swift programming language and the Apple toolset. Using iOS as the platform, students will explore Apple developer tools, such as Xcode, instruments, debugger, analyzer, and iOS simulator. Topics include app functionality, iOS API features, as well as building an original iOS app from conception to completion. Access to an Apple Mac computer is required.
3 lecture hours per week
3 credit hours

CST 141 - App Development I
This course introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This is the first of a two-course sequence designed to teach programming in Swift.
Prerequisite(s): ENG 096, and MAT 021 or MAT 022, if required, and CST 140
3 lecture hours per week
3 credit hours

CST 142 - App Development II
This course introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This is the second of a two-course sequence designed to teach programming in Swift.
Prerequisite(s): ENG 096, if required, and MAT 119, and CST 141
3 lecture hours per week
3 credit hours

CST 161 - Computer Programming Fundamentals
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 096, and MAT 019/MAT 021 or MAT 022, if required
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.
Prerequisite(s): ENG 096, if required, and MAT 119, and CST 161
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(s): ENG 097, and MAT 017 or MAT 019/MAT 021 or MAT 022, if required
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(s): 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 open-source and court-approved *(AccessData)* forensic software tools to conduct digital forensic examinations.
Prerequisite(s): CST 135 and CST 170
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.
Prerequisite(s): CST 101, or 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.
Prerequisite(s): CST 101, or 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.
Prerequisite(s): ENG 097, and MAT 019 or MAT 022, if required
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.
Prerequisite(s): CST 115, or 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(s): ENG 101
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(s): CST 161
4 lecture hours per week
4 credit hours

CST 226 - Introduction to Operating Systems
▲ = Fulfills a General Education Requirement
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(s): 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(s): 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(s): CST 176
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(s): CST 176
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(s): 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(s): 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(s): Division approval 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): DMSM 111
3 lecture hours per week
3 credit hours

ECO – Economics

ECO 201 - Principles of Economics I
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required, and MAT 022
3 lecture hours per week
3 credit hours

ECO 202 - Principles of Economics II
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required, and 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.
Prerequisite(s): 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(s): ECO 201 or ECO 202
3 lecture hours per week
3 credit hours

ECO 209 - The International Economy
This course introduces students to international trade theory and policy. Topics will include the principles and importance of trade, the basis of and gains from trade, balance of payments, trade restrictions (barriers) and commercial policy, foreign exchange markets, multinational and capital flows, trade liberalization via multilateral trade agreements (Examples: NAFTA, the EU, the Euro, and WTO). Students will obtain the analytical skills and vocabulary needed in international trade, commercial, and financial institutions.
Prerequisite(s): ECO 201
3 lecture hours per week
3 credit hours

EDU – Education

EDU 101 - Introduction to Education
This course introduces students to the field of education (K-12). It includes a review of historical, cultural, and societal influences on education as well as current trends and issues in the field. The course also focuses on general teaching best practices, DEI (Diversity, Equity, and Inclusion), UDL (Universal Design for Learning), educational theory, classroom management issues, teacher evaluations, and professional standards for New Jersey teachers.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

EDU 200 - The Exceptional Child
The student will identify the characteristics of special children and will develop programs to meet the needs of these children. The student will observe special education and gifted and talented programs presently functioning in Union County. Units include mild cognitive impairment, learning disability, giftedness, physical handicaps and emotional disorders. Additionally, exceptional students identified as gifted and talented will be covered. This course is of interest to parents of special needs children as well as those interested in a career in education.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

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.
Prerequisite(s): ENG 097, if required
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(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Laboratory emphasizes the use and understanding of basic instrumentation and measurement techniques. Students must register for a lab component of this course.
Prerequisite(s): ENG 096, if required
Co-requisite(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Laboratory introduces measurement techniques utilizing signal generators, oscilloscopes and frequency counters. Students must register for a lab component of this course.
Prerequisite(s): EET 101
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): ENG 096, if required
Co-requisite(s): 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 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. Students will also 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): EET 213
Co-requisite(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): EET 111
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): EET 102
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.
Prerequisite(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): EET 101
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.
Prerequisite(s): EET 209 (UAS 209)
3 lecture hours per week
3 credit hours

EET 290 - Co-op Education Experience in Electronics/Electromechanical Technology
This course is an externship of approximately 180 hours in an electronics/electromechanical technology position with a municipal engineering organization, building contractor, surveyor, architect, or a private engineering firm, with or without compensation. Students will acquire knowledge of industry and workplace-relevant skills. Students should take this course in the last year of their program. This course is only open to matriculated students in the A.A.S. Engineering Technology program. Students must arrange placement with the Division prior to enrolling in the course.
Prerequisite(s): Division approval required
180 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.

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. This course includes a laboratory section that has experiments and activities specifically designed to facilitated knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
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.
Prerequisite(s): ENG 097, if required, and MAT 144
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.
Prerequisite(s): ENG 097 and MAT 022, if required, 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.
Prerequisite(s): MAT 171 and 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.
Prerequisite(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): PHY 111
Co-requisite(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Shade and Animator will be illustrated. Students must register for a lab component of this course.
Prerequisite(s): MET 109 or approval of the Division
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

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(s): HUD 110, 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.
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

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 designated certification exam, which is required to obtain an EMT provider card issued by the NJ Department of Health and Senior Services - OEMS.
Prerequisite(s): EMT 100, or proof of Professional level CPR
3 lecture hours, 6 laboratory hours, and 3 field experience hours per week
7 credit hours

ENG – English

ENG 081 - Accelerated Introduction to College Reading and Writing II
This course helps the under-prepared student to improve reading and writing skills while successfully completing freshman composition. Students in English 081 must take the designated paired English 101 course.
Prerequisite(s): DSP Placement into ENG 081 - Must be completed prior to taking this course.
Co-requisite(s): ENG 101 must be taken at the same time as this 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.
Prerequisite(s): 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(s): 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.
Prerequisite(s): 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
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

ENG 102 - English Composition II
▲ = Fulfills a **General Education** Requirement
This course is the second half of a two-semester sequence, which focuses on the continued development of the student's skill in writing expository prose as well as an introduction to literature.
Prerequisite(s): ENG 101 or ENG 112
3 lecture hours per week
3 credit hours

ENG 112 - English Composition for Speakers of Other Languages
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): 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
▲ = Fulfills a **General Education** Requirement
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(s): 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
▲ = Fulfills a **General Education** Requirement
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
▲ = Fulfills a **General Education** Requirement
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(s): 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 postmodern with an emphasis on the major figures such as Machiavelli, Shakespeare, Voltaire, Goethe, Tolstoy, Kafka, Eliot, and Borges. The place of literature in the social and political history of the West will also be explored.
Prerequisite(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 205 - British Literature I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 206 - British Literature II
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 207 - American Literature I
▲ = Fulfills a **General Education** Requirement
This course includes a survey of major works in American Literature from Colonial diarists to Whitman.
Prerequisite(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 208 - American Literature II
▲ = Fulfills a **General Education** Requirement
This course includes a survey of major works in American Literature from Dickinson to the present.
Prerequisite(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 209 - World Literature I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 210 - World Literature II
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): 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(s): ENG 102 or division approval
3 lecture hours per week
3 credit hours

ENG 216 - Contemporary Literature
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 217 - Literature and the Arts I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 218 - Literature and the Arts II
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 227 - African American Literature I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 228 - African American Literature II
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): 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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 231 - Latinx Literature Studies
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 235 - Introduction to Shakespeare
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 245 - Women in Literature
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 102
3 lecture hours per week
3 credit hours

ENG 247 - Women Authors
▲ = Fulfills a **General Education** Requirement
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(s): ENG 102 or ENG 122
3 lecture hours per week
3 credit hours

ENG 290 - Co-op Education Experience in English
This course is a one-semester internship with a minimum of 180 hours in a position or internship with a local business or industry, with or without compensation. The purpose is to acquire knowledge of industry and workplace-relevant skills. Students must arrange placement with the Division Dean prior to enrolling in the course.
Prerequisite(s): Division approval required
180 contact hours
3 credit hours

ENG 315 - Advanced Writing for Social Sciences
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): 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.

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, 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(s): ESL Placement Test
Co-requisite(s): ESL 038
6 lecture hours per week
6 institutional credits

ESL 038 - Intermediate I Reading/Listening/Speaking
This course is part of a mult-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(s): ESL Placement Test
Co-requisite(s): 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(s): ESL 037 or ESL Placement Test
Co-requisite(s): ESL 048
6 lecture hours per week
6 institutional credits

ESL 048 - Intermediate II Reading/Listening/Speaking
This course is part of a multi-level English for Academic Purposes (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(s): ESL 038 or ESL Placement Test
Co-requisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): ESL 057 or 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(s): 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 headphone w/ microphone for recording is required either at home or in the ALC. This course meets the needs of intermediate students of English as a Second Language.
Prerequisite(s): 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(s): ESL 047 and ESL 048, or by recommendation of professor
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(s): ESL 077 or ESL Placement Test, and permission of instructor
Co-requisite(s): 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 ¾ 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(s): ESL 078 or ESL Placement Test, and permission of instructor
Co-requisite(s): ESL 087 and ESL 089
6 hours per week
6 institutional credits

ESL 089 - Intermediate Individualized Language Learning
This is an accelerated Level 4 individualized course which enhances the students' ability to develop and follow an independent learning plan utilizing online sources to address their individual language needs. The purpose of this course is to develop the students' ability to apply effective CALL learning strategies while completing their individualized language learning modules.
Prerequisite(s): ESL 077 or ESL Placement Test, and permission of instructor
Co-requisite(s): 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.
Prerequisite(s): ESL 047 and ESL 048, or ESL 087 and ESL 088, and permission of instructor
Co-requisite(s): 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.
Prerequisite(s): ESL 047 and ESL 048, or ESL 087 and ESL 088, and permission of instructor.
Co-requisite(s): 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.
Prerequisite(s): ESL 047 and ESL 048, or ESL 087 and ESL 088, and permission of instructor
Co-requisite(s): ESL 097 and ESL 098
1 lecture hour per week
1 institutional credit

ESP – eSports Management

ESP 100 - Introduction to eSports Management
This course introduces students to the business model framework of the eSports industry. The course also examines the essential foundation of how to create value via solving problems and fulfilling consumers' wants and needs in the industry. The course assumes rapid cycles of industry shock and disruption and as such, particular attention will be paid to the unique operational challenges faced by managers and other individuals in the industry, depending on their roles and functions in the organization.
3 lecture hours per week
3 credit hours

ESP 230 - Principles of eSports Management and Event Management
This course focuses on the management skills of planning, organizing, leading and controlling eSports events. The management skills needed to identify and understand the techniques used to analyze and categorize the risks that comes with managing eSports events is also a focus of this course. Emphasis will be placed on the ethics and social responsibility and management skills relevant to the industry, including the esports event manager's role in the decision-making process, motivation of people, leading change and innovation. Additional emphasis will be placed on the management skills gained from the course concerning how to manage different stake-holders and how to distinguish expectations related to scheduled tasks and budgets.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

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 - Fundamentals of 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.
3 lecture hours per week
3 credit hours

FIA 105 - Music Appreciation
▲ = Fulfills a **General Education** Requirement
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
▲ = Fulfills a **General Education** Requirement
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
▲ = Fulfills a **General Education** Requirement
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
▲ = Fulfills a **General Education** Requirement
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
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): 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(s): Prerequisite: FIA 122
3 lecture hours per week
3 credit hours

FIA 124 - Theater Appreciation
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): 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 an historic and contemporary examination of graphic design history and its impact on the commercial design profession. Topics also include 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.
3 lecture hours per week
3 credit hours

FIA 132 - Introduction to Dramatic Literature
▲ = Fulfills a **General Education** Requirement
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(s): ENG 101
3 lecture hours per week
3 credit hours

FIA 210 - Typography Fundamentals
This course provides students the fundamental skills to design effectively with typography for work produced in Design Communication, Typographic Design, and Portfolio. Typography is a foundation course for the Graphic Design curriculum.
3 lecture hours per week
3 credit hours

FIA 220 - Introduction to History of Photography
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): FIA 125
3 lecture hours per week
3 credit hours

FIA 226 - Business of Arts
Students will develop a bridge between the world of business and their passion of the arts. Students are exposed to business areas such as accounting and marketing for both individual artists and nonprofit organizations as well as aspects of budgeting, fundraising, board development, and organizational policies.
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(s): 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.
Prerequisite(s): 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(s): FIA 130
3 lecture hours per week
3 credit hours

FIA 232 - Modern and Contemporary Dramatic Literature
▲ = Fulfills a **General Education** Requirement
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(s): ENG 101
3 lecture hours per week
3 credit hours

FIA 290 - Co-op Education Experience in Theater or Visual Arts
This course is a one-semester internship with a minimum of 180 hours in a position with a local theater-related or visual arts-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 Theater Arts or Visual Arts (options off of Liberal Arts) A.A. degree programs. Students must arrange placement with the Division Dean prior to enrolling in the course.
Prerequisite(s): Division approval required
180 contact hours
3 credit hours

FRE – French

FRE 101 - Beginning French I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

FRE 102 - Beginning French II
▲ = Fulfills a **General Education** Requirement
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(s): FRE 101 or 2 years high school French
3 lecture hours per week
3 credit hours

FRE 111 - Intermediate French I
▲ = Fulfills a **General Education** Requirement
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(s): FRE 102 or three years high school French
3 lecture hours per week
3 credit hours

FRE 112 - Intermediate French II
▲ = Fulfills a **General Education** Requirement
This course is a continuation of FRE 111. Not generally open to native French speakers.
Prerequisite(s): 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
▲ = Fulfills a **General Education** Requirement
This course includes further development of skills in reading, composition and conversation.
Prerequisite(s): FRE 112, or 3 years high school French or its equivalent
3 lecture hours per week
3 credit hours

FRE 122 - Advanced French II
▲ = Fulfills a **General Education** Requirement
This course is a continuation of FRE 121.
Prerequisite(s): 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(s): 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(s): 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(s): 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(s): 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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

FST 112 - Emergency Rescue Operations
This course provides students with instruction in various aspects of rescue operations. Topics include responsibilities of the officer in command, the use of specialized rescue tools and equipment, problems of vehicle rescue, and techniques for handling casualties.
Prerequisite(s): 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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

FST 114 - Legal Aspects of Fire Protection
This course provides a study of legal rights and obligations, liability concerns and responsibilities involving fire department organizations carrying out their duties.
3 lecture hours per week
3 credit hours

FST 115 - Insurance Grading Schedules
This course provides an understanding of all aspects of fire insurance with a major emphasis on its function, type of carriers, provisions, and how rating systems are established. Additionally, it examines handling of risk and settlement claims.
3 lecture hours per week
3 credit hours

FST 116 - Fire Safety Code
This course provides a study of the history and development of fire safety codes, with an emphasis on the nature and scope of legal statutes and related codes in fire protection control.
Prerequisite(s): 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(s): 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(s): FST 106
3 lecture hours per week
3 credit hours

GDP – Game Design Development

GDP 101 - Fundamentals of Game Design
This course covers the many aspects 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(s): ENG 097, if required
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.
Prerequisite(s): GDP 101, and 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(s): 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(s): 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(s): 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(s): GDP 112
Co-requisite(s): 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.
Prerequisite(s): GDP 201 and GDP 212
Co-requisite(s): GDP 215
3 lecture hours per week
3 credit hours

GEO – World Geography

GEO 201 - World Geography
▲ = Fulfills a **General Education** Requirement
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(s): ENG 101, or permission of Division Dean's office
3 lecture hours per week
3 credit hours

GER – German

GER 101 - Beginning German I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

GER 102 - Beginning German II
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

GEY – Geology

GEY 101 - Physical Geology
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitated knowledge acquisition of course subject matter. 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
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitated knowledge acquisition of course subject matter. 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
▲ = Fulfills a **General Education** Requirement
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, interest groups, and the role of the citizen in the American political process.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

GOV 202 - American National Government
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): 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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

GOV 205 - Comparative Governments
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

GOV 207 - International Politics
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS - History

HIS 101 - Introduction to Western Civilization I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 102 - Introduction to Western Civilization II
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 103 - Introduction to World History I
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 104 - Introduction to World History II
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 105 - Afro-American History I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 106 - Afro-American History II
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 201 - United States History to 1865
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 202 - United States History Since 1865
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 209 - Twentieth Century European History
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 215 - The American Experience in the Twentieth Century
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 225 - Women in American History
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 230 - Latin American History
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 270 - The Classical Heritage of Greece and Rome
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
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(s): ENG 097, if required
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

HIS 290 - Co-op Education Experience in History
This course is a one-semester internship of approximately 180 hours in a position with a local museum, historic site, archives, or nonprofit educational or media organization, with or without compensation. Students will acquire relevant skills and hands-on experience in the industry. This course is only open to matriculated students in the A.A. History degree program. Students must arrange placement with the Division prior to enrolling in the course.
Prerequisite(s): Division approval required
180 contact hours
3 credit hours

HIT – Health Information 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(s): Acceptance into the Health Information Technology Program.
3 lecture hours per week
3 credit hours

HIT 110 - 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.
3 lecture hours per week
3 credit hours

HIT 111 - 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.
3 lecture hours per week
3 credit hours

HIT 201 - Healthcare 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.
Prerequisite(s): ALH 161 and CST 100
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.
Prerequisite(s): ALH 161
Co-requisite(s): ALH 201
4 lecture hours per week
4 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.
Prerequisite(s): HIT 202
Co-requisite(s): HIT 205
4 lecture hours per week
4 credit hours

HIT 204 - 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(s): HIT 101
45 lecture hours
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.
Co-requisite(s): 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.
Co-requisite(s): HIT 207
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.
Co-requisite(s): HIT 206
2 lecture hours per week
2 credit hours

HRS – Honors Studies

HRS 103 - Honors Seminar in Cross-Cultural Study
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): A minimum GPA of 3.4, 12 credits completed, and permission of the Division Dean
3 lecture hours per week
3 credit hours

HRS 104 - Honors Seminar in Interdisciplinary Study
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): 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(s): ENG 096, 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.
Prerequisite(s): ENG 096, if required
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.
Prerequisite(s): ENG 096, if required
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.
Prerequisite(s): HSM 100 and 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(s): ENG 096, if required
3 lecture hours per week
3 credit hours per week

HSM 290 - Co-op Experience in Hospitality Management
This course is a one-semester internship of approximately 180 hours in a position in a hospitality organization, with or without compensation. Students will acquire knowledge of industry and hands-on experience to quality for an entry-level position in the hospitality industry. This course is only open to matriculated students in the Hotel, Tourism, and Management, A.A.S. degree program. Students should take this course in the last semester of their program. Students must arrange placement with the Division prior to enrolling in the course.
Prerequisite(s): HSM 100
180 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.
Prerequisite(s): 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 works, phrases, and numbers. Additional focus will be placed on fingerspelled loan signs.
Prerequisite(s): ASL 101 and ASL 102
Co-requisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): HUD 106, HUD 108, 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(s): 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(s): 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(s): 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
▲ = Fulfills a **General Education** Requirement
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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

ITA 102 - Beginning Italian II
▲ = Fulfills a **General Education** Requirement
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(s): ITA 101 or 2 years high school Italian
3 lecture hours per week
3 credit hours

ITA 111 - Intermediate Italian I
▲ = Fulfills a **General Education** Requirement
This course offers review of fundamental skills of understanding, speaking, reading, and writing. This course is not generally open to native Italian speakers.
Prerequisite(s): ITA 102 or 3 years of high school Italian
3 lecture hours per week
3 credit hours

ITA 112 - Intermediate Italian II
▲ = Fulfills a **General Education** Requirement
This course is a continuation of ITA 111.
Prerequisite(s): ITA 111
3 lecture hours per week
3 credit hours

LGL – Paralegal

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 Shephardization 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): LGL 101
3 lecture hours per week
3 credit hours

LGL 290 - Paralegal Internship
This course is a one-semester internship of approximately 180 hours in a position with private law offices, corporate legal departments, public agencies, legal services agencies, or other organizations, with or without compensation. Students will acquire hands-on experience in the industry. This course is an elective in the Paralegal Studies programs. Students must arrange placement with the Division prior to enrolling in the course.
Prerequisite(s): LGL 110, LGL 111, and approval of the Division
180 contact 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 017 - Introduction to Elementary Algebra I
This course is accelerated to support completion of developmental requirements in less time than the traditional sequence. Topics include arithmetic operations, fractions, decimals, percentages, factors, proportions, integers, algebraic expressions, solving basic linear and inequalities, finding equations of lines, and graphing linear equations. Applications through problem-solving are integrated in all course topics. Technology is used to facilitate some independent, self-paced instruction.
Prerequisite(s): Satisfactory performance on Accuplacer
5 lecture hours per week
5 institutional credit hours

MAT 019 - Introduction to Elementary Algebra I for Advanced Math Students
This course is accelerated to support completion of developmental requirements. Topics include arithmetic operations, fractions, decimals, percentages, factors, proportions, integers, algebraic expressions, solving basic linear equations and inequalities, finding equations of lines, and graphing linear equations. Applications through problem-solving are integrated in all course topics. Technology is used to facilitate some independent, self-paced instruction.
Prerequisite(s): 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.
Prerequisite(s): 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(s): Required score on Algebra Placement Test
4 lecture hours per week
4 institutional credit hours

MAT 113 - Math Applications
▲ = Fulfills a **General Education** Requirement
This course is intended for students in the Associate in Applied Science degree Programs. Topics covered include algebra, linear equations, ratios, proportions, percents, word problems, critical thinking skills, sales taxes, property taxes, weekly wages, payroll deductions, depreciation, checking accounts, trade and cash discounts, markups, markdowns, and simple interest.
Prerequisite(s): MAT 017, if required, 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 119 - Algebra
▲ = Fulfills a General Education Requirement
This course is for students who have mastered basic algebra and need a deeper understanding of algebra before progressing to other credit mathematics courses. Topics include solving linear and quadratic equations and inequalities, absolute value equations and inequalities, graphs of linear and quadratic equations, equations of lines, systems of equations, introduction to functions, quadratic functions, polynomials functions, rational functions, radical functions, rational exponents and applications.
Prerequisite(s): ENG 097, if required, and MAT 019 or MAT 022, if required
4 lecture hours per week
4 credit hours

MAT 125 - Survey of Special Topics in Mathematics
▲ = Fulfills a General Education Requirement
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.
Prerequisite(s): ENG 097, if required, and MAT 017 or MAT 022, if required
4 lecture hours per week
4 credit hours

MAT 127 - Elementary Statistics
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097,if required, and MAT 017 or MAT 022, if required
4 lecture hours per week
4 credit hours

MAT 143 - Elementary Mathematical Analysis I
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): 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
▲ = Fulfills a General Education Requirement
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.
Prerequisite(s): 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
▲ = Fulfills a General Education Requirement
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(s): ENG 097, if required, MAT 143 or satisfactory score on the College Level Mathematics Test
3 lecture hours per week
3 credit hours

MAT 155 - Elementary Mathematical Analysis
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required, and satisfactory score on the College Level Mathematics Test and Division approval
5 lecture hours per week
5 credit hours

MAT 171 - Unified Calculus I
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required, 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
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required, MAT 171 or satisfactory score on the College Level Mathematics Test
4 lecture hours per week
4 credit hours

MAT 246 - Business Statistical Analysis
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required, 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(s): MAT 171
3 lecture hours
3 credit hours

MAT 265 - Linear Algebra
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required, and MAT 171
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(s): ENG 097, if required, and MAT 171
Co-requisite(s): MAT 172
3 lecture hours per week
3 credit hours

MAT 267 - Discrete Mathematics
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required, and MAT 143
3 lecture hours per week
3 credit hours

MAT 271 - Unified Calculus III
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required, and MAT 172
4 lecture hours per week
4 credit hours

MAT 272 - Differential Equations
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required, and MAT 172
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): MET 109 or approval of Division
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitated knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
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(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. Students must register for a lab component of this course.
Prerequisite(s): MET 106 and MET 109
2 lecture hours and 3 laboratory hours per week
3 credit hours

MTR – Meteorology

MTR 101 - Introduction to Meteorology
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter. 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. Students must register for a lab component of this course.
Prerequisite(s): ENG 096, if required
3 lecture and 3 laboratory hours per week
4 credit hours

NURE – Nursing, Trinitas/RWJ Barnabas Health

NURE 105 - Foundational Concepts of Nursing
This course introduces students to the profession of nursing using the QSEN framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management. Introduction of the Nursing Process allows for exploration of the knowledge, skills and attitude related to the foundational principles inherent to the nursing role and nurse-patient relationship. Concepts include but are not limited to professional behaviors, communication, culture, psycho-social and legal/ethical issues, as well as an introduction to basic health assessment, pharmacology, and leadership and management. Foundational knowledge for basic proficiency in clinical calculations is introduced in this semester. There is no associated clinical component, but competence with medical terminology is included through self-guided learning modules.
Satisfaction of College Placement Testing or satisfaction of any needed developmental courses
Co-requisite(s): BIO 105, ENG 101, PSY 101, ENG 112
4 lecture hours per week
4 credit hours

NURE 106 - Fundamental Concepts of Nursing
Using the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management this course introduces students to the knowledge, skills and attitude required for fundamental nursing practice to deliver safe and effective care in accordance with standards of professional nursing practice. Within the structure of the Nursing Process and basic health assessment fundamental principles are integrated with knowledge of anatomy and physiology and pharmacology. Building upon the concepts learned in NURE 105, the student will be introduced to patient safety, comfort and mobility, nutrition, older adults, infection, fluid and electrolytes, elimination, and introduction to oxygenation and perfusion. Concepts related to health and physical assessment and leadership and management are continued. Students participate in clinical experiences in the Learning/Simulation Center and in acute and chronic health care settings for the application of associated nursing principles.
Prerequisite(s): BIO 105, ENG 101, PSY 101, NURE 105
Co-requisite(s): BIO 106, PSY 204
3.5 lecture and 10.5 clinical hours per week
7 credit hours

NURE 207 - Introduction to Acute and Chronic Nursing
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course introduces students to the knowledge, skills and attitude required for specific areas of nursing practice in order to deliver safe and appropriate care to adult and pediatric patients in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology and leadership and management. Building upon the concepts from NURE 105 & NURE 106, students are introduced to pediatric growth and development and cellular regulation and continue to explore concepts related to acute and chronic nursing. Students participate in clinical experiences in the Learning/Simulation Center, and in acute and chronic adult and pediatric health care settings for the application of associated nursing principles.
Prerequisite(s): BIO 106, PSY 204, NURE 105, and NURE 106
Co-requisite(s): BIO 108, and SOC 101
3.5 lecture and 10.5 clinical hours per week
7 credit hours

NURE 208 - Advanced Acute and Chronic Nursing Concepts
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course continues to deliver the knowledge, skills and attitude required for specific areas of nursing practice in order to deliver safe and appropriate care to adult and obstetrical patients in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology and leadership and management. Building upon the concepts from NURE 105, NURE 106, and NURE 207 students are introduced to concepts of women's health, reproduction, and mother and child ante/intra/postpartum care. Students participate in clinical experiences in the Learning/Simulation Center, acute adult and obstetrical settings for the application of associated nursing principles.
Prerequisite(s): BIO 108, SOC 101, and NURE 207
Co-requisite(s): ENG 102, and Humanities Gen Ed Requirement
3.5 lecture and 10.5 clinical hours per week
7 credit hours

NURE 209 - Critical and Complex Nursing Concepts
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course builds upon concepts learned in previous nursing courses to demonstrate knowledge, skills and attitudes to deliver safe and appropriate care to patients with complex medical conditions, critical illnesses, and psychiatric/mental health conditions in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology, and leadership and management. Students expand their knowledge of acute and chronic illnesses, and are introduced to individual/multi-system critical illnesses and the concept of psychobiology that includes but is not limited to exploration of anxiety, depressive, schizophrenic and personality disorders. Students participate in clinical experiences in the Learning/Simulation Center, and acute adult and mental health settings for the application of associated nursing principles.
Prerequisite(s): ENG 102, Humanities Gen Ed Requirement (3 credits), and NURE 208
Co-requisite(s): Humanities Gen Ed Requirement (3 credits)
3.5 lecture and 10.5 clinical hours per week
7 credit hours

NURE 213 - Transitional Professional Nursing Practice Concepts
This course is designed to transition the LPN-RN student to professional nursing practice using the QSEN framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management. Acquisition of knowledge related to the Nursing Process and basic health assessment allows for development of the knowledge, skills and attitude related to the foundational principles inherent to the role of the professional registered nurse. Concepts include but are not limited to professional behaviors, communication, culture, psycho-social and legal/ethical issues, as well as an introduction to pharmacology, and leadership and management. Foundational knowledge for basic proficiency in clinical calculations is introduced in this semester. There is no associated clinical component
Prerequisite(s): BIO 105, BIO 106, BIO 108, ENG 101, ENG 102, PSY 101, PSY 204, SOC 101, Humanities Gen Ed Requirement (6 credit hours)
4 lecture hours per week
4 credit hours

NURE 214 - Acute and Chronic Medical/Surgical Nursing Concepts
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course introduces students to the knowledge, skills and attitude required for specific areas of nursing practice in order to deliver safe and appropriate care to adult patients in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology and leadership and management. Building upon knowledge from the practical nurse program and the concepts learned in NURE 213, this course will explore a variety of concepts related to acute and chronic nursing, including but not limited to infection, fluid and electrolytes, cellular regulation, endocrine, oxygenation and perfusion.. Students participate in clinical experiences in the Learning/Simulation Center and in acute and chronic health care settings for the application of associated nursing principles.
Prerequisite(s): NURE 213
3.5 lecture and 10.5 clinical hours per week
7 credit hours

NURE 215 - Women's Health and Maternal/Newborn Nursing Concepts
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course continues to deliver the knowledge, skills and attitude required for specific areas of nursing practice in order to deliver safe and appropriate care to female, obstetrical and newborn patients in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology and leadership and management. Building upon the concepts from NURE 213 and NURE 214, students are introduced to concepts of women's health, reproduction, and mother and child ante/intra/postpartum care. Students participate in clinical experiences in the Learning/Simulation Center and in obstetrical settings for the application of associated nursing principles for the application of associated nursing principles.
Prerequisite(s): NURE 213, NURE 214
3.2 lecture and 9.6 clinical hours per week (7-week term)
3 credit hours

NURE 216 - Acute and Chronic Pediatric Nursing Concepts
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course introduces students to the knowledge, skills and attitude required for specific areas of nursing practice in order to deliver safe and appropriate care to pediatric patients in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology and leadership and management. Building upon the concepts from NURE 213, NURE 214, and NURE 215, students are introduced to pediatric growth and development and apply concepts related to acute and chronic nursing to the pediatric patient. Students participate in clinical experiences in the Learning/Simulation Center, and in acute and chronic pediatric health care settings for the application of associated nursing principles.
Prerequisite(s): NURE 213, NURE 214, and NURE 215
3.2 lecture and 9.6 clinical hours per week (7-week term)
3 credit hours

NURE 217 - Psychiatric/Mental Health Complex Nursing Concepts
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course builds upon concepts learned in previous nursing courses to demonstrate knowledge, skills and attitudes to deliver safe and appropriate care to patients with mental health conditions in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology, and leadership and management. Students are introduced to the concept of psychobiology that includes but is not limited to exploration of anxiety, depressive, schizophrenic and personality disorders, Students participate in clinical experiences in the Learning/Simulation Center, and mental health settings for the application of associated nursing principles.
Prerequisite(s): NURE 213, NURE 214, NURE 215, and NURE 216
3.2 lecture and 9.6 clinical hours per week (7-week term)
3 credit hours

NURE 218 - Medical/Surgical Critical and Complex Health Nursing Concepts
Continuing with the framework of Patient Centered Care, Teamwork and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and Information Management, this course builds upon concepts learned in previous nursing courses to demonstrate knowledge, skills and attitudes to deliver safe and appropriate care to patients with complex medical conditions and critical illnesses in accordance with standards of professional nursing practice. Within the structure of the Nursing Process, principles of health and illness are integrated with knowledge of anatomy and physiology, pharmacology, and leadership and management. Students expand their knowledge of acute and chronic illnesses while being introduced to individual/multi-system critical illnesses. Students participate in clinical experiences in the Learning/Simulation Center, and acute adult settings for the application of associated nursing principles.
Prerequisite(s): NURE 213, NURE 214, NURE 215, and NURE 216
3.2 lecture and 9.6 clinical hours per week (7-week term)
3 credit hours

NURM – Nursing, JFK 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-requisite(s): BIO 105, CHE 114, ENG 101, NURM 119
1 credit hour

NURM 101 - Introduction to Professional Nursing Concepts
N101 Introduction to Professional Nursing Concepts: (4)

This course introduces students to professional nursing concepts and is designed to provide the student nurse with the beginner level knowledge necessary for the role of a professional registered nurse, with a focus on the profession and historical perspectives. Introduction to the nursing process, health promotion and wellness, evidence-based practice, and the clinical judgment necessary for practice. Attention is placed on the acquisition of knowledge and skills to promote health and enhance nurse-patient communication. The significance of patient interaction with the environment and diversity in health care is examined and integrated throughout the course. Concepts and issues that relate to nursing practice that are explored include but are not limited to: the nurse/patient relationship, effective therapeutic communication, health and wellness, diversity, equity, and inclusion, spirituality, nutrition and current legal and ethical considerations. Clinical judgment is applied in the safe calculation and administration of medications. The theory base provided for this course will be built upon and applied in subsequent nursing courses. There is no associated clinical component, but competence with medical terminology is included through self-guided learning modules.
Prerequisite(s): Satisfaction of College Placement Testing or satisfaction of any needed developmental courses.
Co-requisite(s): BIO 105, and ENG 101
4 lecture hours per week
4 credit hours

NURM 102 - Fundamentals of Professional Nursing Concepts
This course is designed to establish foundations of knowledge, attitudes and perceptual motor skills necessary for professional nursing practice. Professional role components and expectations are examined as they relate to the delivery of evidence-based care to patient-centered care. The importance of clinical judgement will be integrated throughout utilizing systematic data collection with a comprehensive health history, and health and physical assessments. Emphasis is placed on the application of effective therapeutic communication, health promotion and wellness, diversity, equity and inclusion, spirituality, current legal, ethical and social considerations and teaching-learning principles. The theory base provided for this course will be built upon and applied in subsequent nursing courses. The clinical components of this course are provided in the classroom, laboratory and simulation settings as well as medical surgical hospital based units, nursing homes and any other clinical sites that meet learning outcomes.
Prerequisite(s): BIO 105, and satisfaction of a Standard Admission Exam or satisfaction of any needed developmental courses
Co-requisite(s): BIO 106, ENG 101, PSY 101
3.5 lecture and 10.5 clinical hours per week
7 credit hours

NURM 103 - Essentials of Professional Nursing Concepts
This course explores the role of the accountable, responsible registered nurse as it relates to the delivery of evidence-based care utilizing clinical judgment while focusing on the medical-surgical patient experiencing health issues. Emphasis is placed on developing skills, health promotion and wellness, and teaching-learning principles. Clinical experiences are in the acute care setting of medical-surgical units, simulation lab as well as in the community they serve. The student nurse gains experience in analyzing and interpreting patient data for an accurate nursing diagnosis and the delivery of nursing care in the clinical setting.
Prerequisite(s): BIO 106, PSY 101, NURM 101, NURM 102, and satisfaction of a Standard Admission Exam or satisfaction of any needed developmental courses
Co-requisite(s): BIO 108, PSY 204
3.5 lecture and 10.5 clinical hours per week
7 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 Schools of Nursing and Medical Imaging 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.
Prerequisite(s): 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(s): NRML 120
2 lecture and 11.2 laboratory hours per week
4 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.
Prerequisite(s): 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(s): NRML 141; GPA 2.0
7 lecture hours and 18 laboratory hours per week
13 credit hours

NURM 201 - Advanced Essentials Professional Nursing Concepts
This course explores the role of the accountable registered nurse as it relates to the delivery of evidence-based care to patients experiencing actual or potential, commonly occurring complex health problems. The student nurse gains experience in setting realistic patient outcomes and personalizing nursing interventions for two patients in the clinical setting. Emphasis is placed on continued development of therapeutic communication skills, beginning management skills, current legal, ethical and social problems and teaching-learning principles, assisting with the gratification of human needs utilizing Jean Watson's Human Caring Science Theory. Clinical experiences are provided in the classroom laboratory settings as well as medical-surgical units, psychiatric facilities, community settings and other clinical sites to meet the course learning objectives.
Prerequisite(s): PSY 204, NURM 101, NURM 102, NURM 103, and satisfaction of a Standard Admission Exam or satisfaction of any needed developmental courses.
Co-requisite(s): BIO 108, ENG 102, and SOC 101
3.5 lecture and 10.5 clinical hours per week
7 credit hours

NURM 202 - Synthesis of Professional Nursing Concepts
This course emphasizes the role of the accountable, responsible, registered nurse as it relates to the delivery of evidence-based care to patients experiencing medical-surgical, pediatric and obstetrical commonly occurring health care problems. The student nurse gains experience in organizing, prioritizing and evaluation of care for a small group of patients in the clinical setting. Emphasis is placed on the application of increasing therapeutic communication skills, management and leaderships , current legal, ethical and social problems and teaching-learning principles. The course emphasizes health promotion, health maintenance and disease prevention. Laboratory experiences are provided in the classroom laboratory setting including simulation as well as medical-surgical, pediatric and obstetrical units and any other clinical sites to meet the course outcomes.
Prerequisite(s): ENG 102, NURM 101, NURM 102, NURM 103, NURM 201, and satisfaction of a Standard Admission Exam or satisfaction of any needed developmental courses
Co-requisite(s): Humanities Gen Ed Requirement (6 credits)
3.5 lecture and 10.5 clinical hours per week
7 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.
Prerequisite(s): NURM 122
Co-requisite(s): 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.
Prerequisite(s): NURM 221
Co-requisite(s): 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.
Prerequisite(s): NURM 141
Co-requisite(s): 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(s): NURM 241
Co-requisite(s): NRML 242
7 lecture hours and 18 laboratory hours per week
13 credit hours

NRML – Nursing Lab, JFK Muhlenberg

NRML 120 - LPN Transition Course Laboratory
This is a co-requisite laboratory course for NURM 120.
Co-requisite(s): NURM 120

NRML 141 - Accelerated Nursing Laboratory – Spring NURM
This is a co-requisite laboratory course for NURM 141.
Co-requisite(s): NURM 141

NRML 221 - Nursing III Laboratory
This is a co-requisite laboratory course for NURM 221.
Co-requisite(s): NURM 221

NRML 222 - Nursing IV Laboratory
This is a co-requisite laboratory course for NURM 222.
Co-requisite(s): NURM 222

NRML 241 - Accelerated Nursing Laboratory – Summer
This is a co-requisite laboratory course for NURM 241.
Co-requisite(s): NURM 241

NRML 242 - Accelerated Nursing Laboratory – Fall
This is a co-requisite laboratory course for NURM 242.
Co-requisite(s): NURM 242

PED – Physical Education

PED 107 - Decisions for Wellness
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. This course will not fulfill a college laboratory science requirement. Division approval required.
3 lecture hours per week
3 credit hours

PHI – Philosophy

PHI 205 - Introduction to Philosophy
▲ = Fulfills a **General Education** Requirement
This course is an introduction to philosophy. The course examines the nature of philosophy, its objectives, its major areas of focus, and its methods. The course is organized around the study of major problems and pertinent questions in philosophy, including the nature of reality, the uniqueness of the human person, the process of acquiring knowledge, and ethical dilemmas involving human decision making. Philosophical problems and related issues are explored through selected readings in philosophy that introduce the student to major philosophers within the Western philosophical tradition.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

PHI 206 - History of Ancient and Medieval Philosophy
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): HIS 101, HIS 102
3 lecture hours per week
3 credit hours

PHI 207 - History of Modern Philosophy
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): 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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

PHI 210 - Ethics
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 097, if required
3 lecture hours per week
3 credit hours

PHI 212 - Logic and Critical Thinking
▲ = Fulfills a **General Education** Requirement
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(s): ENG 097, if required
3 lecture hours per week
3 credit hours

PHY - Physics

PHY 101 - General Physics I
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter.
Prerequisite(s): MAT 143
Co-requisite(s): PHYL 111
3 lecture hours per week
3 credit hours

PHY 102 - General Physics II
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter.
Prerequisite(s): PHY 101
Co-requisite(s): PHYL 102
3 lecture hours per week
3 credit hours

PHY 111 - Mechanics
▲ = Fulfills a General Education Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter.
Prerequisite(s): MAT 144 or MAT 155
Co-requisite(s): PHYL 111
3 lecture hours per week
3 credit hours

PHY 125 - Elements of Physics
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter.
Prerequisite(s): MAT 119
Co-requisite(s): PHYL 125
3 lecture hours per week
3 credit hours

PHY 201 - Electricity and Magnetism
▲ = Fulfills a **General Education** Requirement
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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter.
Prerequisite(s): MAT 172
Co-requisite(s): 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. This course includes a laboratory section that has experiments and activities specifically designed to facilitate knowledge acquisition of course subject matter.
Prerequisite(s): PHY 201
Co-requisite(s): PHYL 202
3 lecture hours per week
3 credit hours

PHYL – Physics Lab

PHYL 102 - General Physics II Laboratory
▲ = Fulfills a **General Education** Requirement
Physics laboratory to accompany PHY 102.
Co-requisite(s): PHY 102
3 laboratory hours per week
1 credit hour

PHYL 111 - Mechanics Laboratory
▲ = Fulfills a **General Education** Requirement
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(s): PHY 101 or PHY 111
3 laboratory hours per week
1 credit hour

PHYL 125 - Elements of Physics Laboratory
▲ = Fulfills a **General Education** Requirement
Physics laboratory to accompany PHY 125.
Co-requisite(s): PHY 125
2 laboratory hours per week
1 credit hour

PHYL 201 - Electricity and Magnetism Laboratory
▲ = Fulfills a **General Education** Requirement
Physics laboratory to accompany PHY 201.
Co-requisite(s): 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(s): 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.
Prerequisite(s): ENG 101, BIO 105, BIOL 105, MAT 113, and PSY 101
Co-requisite(s): 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.
Prerequisite(s): PMD 110, BIO 106, and 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(s): PMD 110 and 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.
Prerequisite(s): PMD 110, PMD 113, and PMD 114
Co-requisite(s): PMD 214
8 lecture and 9 laboratory hours per week
11 credit hours

PMD 214 - Paramedic Clinical III
This clinical course provides the educational clinical experience required to prepare the student to achieve certification as a paramedic. Clinical rotations are meant for application of learned theory and patient care skills, while under the direct observation and guidance of a preceptor. Specific clinical areas as outlined by N.J. 8:41A Category II. Skills learned and demonstrated in the lab will be applied in the clinical area.
Prerequisite(s): 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(s): PMD 213 and 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.
Prerequisite(s): All Developmental Course Work, GPA 2.5
Co-requisite(s): ENG 101 or ENG 102, 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.
Prerequisite(s): PNU 190, ENG 101 or ENG 112, BIO 102 or BIO 106, PSY 101, GPA 2.5
Co-requisite(s): 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.
Prerequisite(s): PNU 191, Elective, GPA 2.5
Co-requisite(s): 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.
Prerequisite(s): PNU 210, PSY 204, GPA 2.5
120 lecture hours, 180 clinical lab hours
12 credit hours (8 theory, 4 clinical lab)

PSRT – Psychosocial Rehabilitation – Rutgers

PSRT 1019 - Clinical Practicum in Psychosocial Rehabilitation I
Students will observe and identify common interventions for working with the individual with serious mental illness. Clinical experiences (16 hours weekly, for a minimum of 240 hours) will emphasize participation under supervision in group activities, program tasks, skills training and skills practice. Classroom lectures and seminars will provide students with opportunities to integrate theory with practical experience.
Prerequisite(s): 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

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(s): UPR 101 (PSRT 1101) or permission of Division Dean's office
2 lecture hours and 2 laboratory hours per week
3 credit hours
This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit http://shrp.rutgers.edu

PSRT 1103 - Introduction to Group Dynamics
Introduces the student to the principles, and skills necessary for the effective use of groups to engage people, and achieve goals. Classroom lectures and practice sessions demonstrate group dynamics, and group process. Students also participate in faculty supervised group experiences.
Prerequisite(s): UPR 101 (PSRT 1101) or permission of Division Dean's office
2 lecture hours and 2 laboratory hours per week
3 credit hours
This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit http://shrp.rutgers.edu

PSRT 1204 - Clinical Principles in Psychosocial Rehabilitation and Treatment
Introduces students to an understanding of psychopathology as it is addressed through psychosocial rehabilitation intervention efforts. Students will be able to define and differentiate between mental health and mental illness. The use of common psychotropic drugs and their side effects will also be covered. Current psychiatric practices will be discussed.
Prerequisite(s): UPR 101 (PSRT 1101)
3 lecture hours per week
3 credit hours
This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit http://shrp.rutgers.edu

PSRT 2019 - Clinical Practicum in Psychosocial Rehabilitation II
Enables students to continue to develop intervention skills and strategies. Faculty supervised field experience (16 hours weekly, for a minimum of 240 hours) provides students with opportunities to develop appropriate clinical judgment, as well as initial participation in service planning and choice of interventions. Students will begin to lead activities under supervision and be introduced to documentation requirements.
Prerequisite(s): PSRT 1019
3 lecture hours and 16 clinical hours per week
6 credit hours
This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit http://shrp.rutgers.edu

PSRT 2121 - Community Resource Management and the Individual with Severe Mental Illness
Introduces students to the principles and practices of systems utilization for the improved functioning of people with psychiatric disabilities. Needs evaluation and goal formulation will be the basis of case coordination and resource linking within a systems framework. Lectures and course activities provide students with opportunities to explore the relationship of services to the individual's needs. Web based course.
Prerequisite(s): UPR 101 (PSRT 1101), PSRT 1102, PSRT 1103, PSRT 1204
3 lecture hours per week
3 credit hours
This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit http://shrp.rutgers.edu

PSRT 2231 - Emerging Topics in Psychosocial Rehabilitation and Treatment
Acquaints the students with emerging developments in the field of psychosocial rehabilitation and treatment, focusing on current issues and trends. The purpose of the course is to help the student conceptualize psychosocial rehabilitation as a diverse and evolving field. Web based course.
Prerequisite(s): PSRT 1019, PSRT 2121
3 lecture hours per week
3 credit hours
This course is only available to students who have been accepted into a Rutgers program. For the most current course description visit http://shrp.rutgers.edu

PSY – Psychology

PSY 101 - General Psychology
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 096, if required
3 lecture hours per week
3 credit hours

PSY 102 - Psychology of Personality
▲ = Fulfills a General Education Requirement
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(s): ENG 096, if required
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(s): PSY 101
3 lecture hours per week
3 credit hours

PSY 204 - Lifespan Development
▲ = Fulfills a **General Education** Requirement
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(s): PSY 101
3 lecture hours per week
3 credit hours

PSY 205 - Child Psychology
▲ = Fulfills a **General Education** Requirement
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(s): PSY 101
3 lecture hours per week
3 credit hours

PSY 206 - Adolescent Psychology
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): 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(s): 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(s): PSY 101
3 lecture hours per week
3 credit hours

PSY 212 - Psychology of Adulthood and Aging
▲ = Fulfills a **General Education** Requirement
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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): PSY 101 and PSY 205, or permission of Division Dean's office
3 lecture hours per week
3 credit hours

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. Students must register for a lab component of this course.
Prerequisite(s): (All with a grade of "C" or better) BIO 105, ENG 101, MAT 119, and PSY 101
Co-requisite(s): PTA 130, and 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. Students must register for a lab component of this course.
Prerequisite(s): (All with a grade of "C" or better) BIO 105, ENG 101, MAT 119, and PSY 101
Co-requisite(s): PTA 115, and 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. Students must register for a lab component of this course.
Prerequisite(s): PTA 115, PTA 130, and 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. Students must register for a lab component of this course.
Prerequisite(s): All previous professional coursework with a minimum grade of "C+"
Co-requisite(s): 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. Students must register for a lab component of this course.
Prerequisite(s): All previous professional course work passed with a minimum grade of "C+", ENG 102, and BIO 106
Co-requisite(s): PTA 217, and 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. Students must register for a lab component of this course.
Prerequisite(s): All previous professional course work passed with a minimum grade of "C+", ENG 102, and BIO 106
Co-requisite(s): PTA 217, and 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.
Prerequisite(s): ENG 102, PTA 217, PTA 220, and PTA 221 all passed with a grade of "C+" or better
Co-requisite(s): 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.
Prerequisite(s): PTA 217, PTA 220, and PTA 221. All previous professional course work passed with a minimum grade "C+"
Co-requisite(s): 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.
Prerequisite(s): All passed with a grade of "C" or better. BIO 105, ENG 101, MAT 119, and PSY 101
2 lecture hours per week
2 credit hours

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(s): 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(s): 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.
Prerequisite(s): MAT 119, PHY 125 or PHY 101
Co-requisite(s): 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(s): 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 Lab, 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 – Radiology Imaging, JFK Muhlenberg

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.
Prerequisite(s):

RADIOGRAPHY - RNTM 101, RNTM 103, RADM 120
SONOGRAPHY - 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.
Prerequisite(s): MAT 113, BIO 105, and PSY 101
Co-requisite(s): ENG 101, RSP 102, and 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.
Prerequisite(s): MAT 113, BIO 105, and PSY 101
Co-requisite(s): ENG 101, RSP 101, and 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.
Prerequisite(s): MAT 113, BIO 105, and PSY 101
Co-requisite(s): ENG 101, RSP 101, and 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.
Prerequisite(s): MAT 113, BIO 105, PSY 101, RSP 101, RSP 102, and RSP 110
Co-requisite(s): ENG 102 and 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.
Prerequisite(s): ENG 102, BIO 106, RSP 111, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, and 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.
Prerequisite(s): RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, and MAT 113
Co-requisite(s): RSP 102 and 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.
Prerequisite(s): RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, and MAT 113
Co-requisite(s): RSP 201 and 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.
Prerequisite(s): RSP 112, RSP 111, BIO 106, ENG 102, RSP 110, RSP 102, RSP 101, ENG 101, PSY 101, BIO 105, and MAT 113
Co-requisite(s): RSP 201 and RSP 202
2 lecture hours per week
2 credit hours

RSP 211 - Neonatal Pediatric Respiratory Care
RSP 110 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.
Prerequisite(s): 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, and MAT 113
Co-requisite(s): RSP 212 and 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.
Prerequisite(s): 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, and MAT 113
Co-requisite(s): RSP 211 and 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.
Prerequisite(s): 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, and MAT 113
Co-requisite(s): RSP 211 and RSP 212
4 lecture hours per week
4 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 per week
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 per week
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 and 2 laboratory hours per week
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 per week
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 per week
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 per week
3 credit hours

SOC – Sociology

SOC 101 - Principles of Sociology
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 096, if required
3 lecture hours per week
3 credit hours

SOC 102 - Social Problems
▲ = Fulfills a **General Education** Requirement
This course is the study of contemporary social problems as well as their causes and effects on society in the United States and globally. Various sociological perspectives are utilized to understand and critically discuss a diversity of social problems, such as poverty, racism, sexism, crime and drug abuse, family violence, overpopulation, war and terrorism, and technology and environmental issues. Policies and social institutions that deal with social problems are also discussed.
Prerequisite(s): SOC 101
3 lecture hours per week
3 credit hours

SOC 103 - Gender, Culture and Society
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 096, if required
3 lecture hours per week
3 credit hours

SOC 204 - Women and Social Change
▲ = Fulfills a **General Education** Requirement
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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

SOC 206 - Minorities in American Life
▲ = Fulfills a **General Education** Requirement
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(s): SOC 101
3 lecture hours per week
3 credit hours

SOC 207 - Social Inequality
▲ = Fulfills a **General Education** Requirement
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(s): 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(s): 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.
Prerequisite(s): PSY 101 or SOC 101
3 lecture hours per week
3 credit hours

SOC 219 - Gender and Work
▲ = Fulfills a General Education Requirement
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(s): ENG 101
3 lecture hours per week
3 credit hours

SOC 273 - Marriage and the Family
▲ = Fulfills a **General Education** Requirement
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(s): SOC 101
3 lecture hours per week
3 credit hours

SPA - Spanish

SPA 101 - Beginning Spanish I
▲ = Fulfills a **General Education** Requirement
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(s): ENG 096, if required
3 lecture hours per week
3 credit hours

SPA 102 - Beginning Spanish II
▲ = Fulfills a **General Education** Requirement
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(s): SPA 101 or 2 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(s): 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
▲ = Fulfills a **General Education** Requirement
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
▲ = Fulfills a **General Education** Requirement
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(s): SPA 101 and SPA 102, or 3 years high school Spanish
3 lecture hours per week
3 credit hours

SPA 112 - Intermediate Spanish II
▲ = Fulfills a **General Education** Requirement
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(s): SPA 102, or 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
▲ = Fulfills a **General Education** Requirement
This course provides further development of skills in reading, composition and conversation.
Prerequisite(s): SPA 112, or its equivalent
3 lecture hours per week
3 credit hours

SPA 122 - Advanced Spanish II
▲ = Fulfills a **General Education** Requirement
This course is a continuation of SPA 121.
Prerequisite(s): SPA 121
3 lecture hours per week
3 credit hours

TRN – Translating

TRN 101 - Introduction to Written Translation
A general, introductory course that covers the theoretical and practical aspects of translating written text from one written language into another. Students learn what skills and knowledge are needed to become professional translators. They perform translations on a variety of documents. The emphasis is on translation into written English from any other written language although practice and feedback are given in the opposite direction as well.
Prerequisite(s): Completion of all developmental English and ESL requirements of the College.
3 lecture hours per week
3 credit hours
This is an online course.

UCC – College Success

UCC 101 - College Success
UCC 101 is a College Success course designed to create a supportive learning community by connecting students to each other, the college environment, and pathways to their future goals and careers. This course will explore the role of education in the construction of personal and cultural identities. Topics on current issues in society will be used to teach students effective study skills and cultural competence. This will help them develop career pathways. Students will learn 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 (7-week term)
1 credit hour

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
▲ = Fulfills a **General Education** Requirement
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.
Prerequisite(s): ENG 096, if required
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(s): 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(s): 2.0 GPA
300 contact hours
6 credit hours

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Dominique Maynard, Associate Director of One Stop Operations, One Stop Operations, B.S., Townson University, M.A., UNC Greensboro

Shelby Miller, Associate Registrar, Registrar's Office, B.A., Kean University, M.A., Kean University

Latoya Mitchell, Billing Coordinator, Student Accounts, A.A., Union College of Union County, NJ

Mohamed Mohamed, Director of Student Research and Science Laboratories, Academic Affairs, B.S., Alexandria University, M.S., Alexandria University, Ph.D., Alexandria University

Keren Moncayo, Student Services Generalist, One Stop Operations, B.A., Rider University

Marbely Montas, Director of Athletics, College Life, A.A., Union College of Union County, NJ, B.S., Monmouth University

Rocio Morales, Program Coordinator - Displaced Homemaker, Center for Economic and Workforce Development, B.S., Kean University

Joyce Morell, Title V ExCEL Student Services Specialist, Academic Affairs, M.S.W., Seton Hall University

Beata Mourad, Laboratory Technician, Academic Affairs, A.A., Union College of Union County, NJ, M.A., Thomas Edison State University

Deanna Muniz, Title V ExCEL Grant Coordinator for Career and Leadership Development, Academic Affairs, B.A., Kean University, M.A., Kean University

Curran Murphy, Tutoring Center Services Coordinator, Academic Learning Center, A.A., Union College of Union County, NJ, B.A., Drew University

Taylor Nelson, College Life and Athletics Operations Coordinator, College Life, B.A., Dominican College

Amanda Nielsen, Coordinator of Services for Students with Disabilities, Disability Services, B.A., Bethany College

Melinda Norelli, Dean of Social Sciences, Business, and History, A.A., Union College of Union County, NJ, B.A., Drew University, M.A., The Chicago School Professional Psychology, Ph.D., The Chicago School Professional Psychology

Timothy O'Connor, Student Services Generalist, Continuing Education, B.A., Montclair State University

Margaret Ortuso, Communications and Marketing Coordinator, College Relations, B.A., Kean University

Mitchell O'Shea, Academic Specialist/Director of Clinical Education, Respiratory Care, Academic Affairs A.A.S., SUNY - Rockland, B.S., Manhattan College, M.A., Columbia University

Jose L. Paez-Figueroa, Assistant Dean of Learning Resources, Academic Affairs, B.A., Universidad del Norte, M.S., Thomas Edison State College

Gabriella Pasquini, Enrollment Communications Coordinator, Office of Admissions, B.A. Rider University

Stacey Kamisha Parson, Student Services Generalist/Life Skills, Center for Economic and Workforce Development, M.H.S., Lincoln University

Hemlata Patel, Senior Grant Accountant, Finance and Operations, B.S., Missouri State University

Francisca Pena, Accounts Payable Coordinator, Finance and Operations

Kobe Penn, Student Services Generalist, Student Success Initiatives, B.A., Montclair State University

Paula Pereira, Supervising Senior Accountant, Finance and Operations, B.S., Kean University, M.S., Kean University

Denise A. Petrosky, Training Operations Manager, Industry-Business Institute, B.A., Montclair State University

Kevan Pidgeon-Hammock, College Life Athletics Information Coordinator, College Life, A.A., Union College of Union County, NJ, B.A., Kean University, M.A., Kean University

Alvaro Polar, Educational Support Coordinator, Academic Learning Center, B.C.E., Universidad Nacional de San Agustin de Arequipa, M.S., New Jersey Institute of Technology

Titilola Price, Student Services Specialist, Educational Opportunity Fund, A.A.S., Union College of Union County, NJ, M.P.A., Kean University

Tathiana Puchik, Student Services Generalist, Center for Economic and Workforce Development, B.S., Pontifical Catholic University

Carmen Quesada, Advisor/Systems Analyst, Financial Aid, A.A.S., Union College of Union County, NJ, B.S., Garcilaso de la Vega University

Karlene Rambaran, Human Resources Manager, Human Resources, B.A.,The College of New Jersey, M.S., Capella University

Elizabeth A. Ramos, Dean of the Elizabeth Campus and Institute for Intensive English, Academic Affairs, B.A., College of Saint Elizabeth, M.A., College of Saint Elizabeth, Ed.D., Saint Peter's University

Leonardo Ramos, Student Services Generalist, Student Success Initiatives, A.A., Union College of Union County, NJ, B.A., Drew University

Hilda Regalon, Student Services Generalist, One Stop Operations, B.A., Rutgers University

Duane Reid, Director of Student Success Initiatives, Student Success Initiatives, B.S., Rutgers University, M.P.A, Rutgers University

Valeriya Reis, Budget Analyst, Finance and Operations, B.S., Kean University

Melisa Reyes, Administrator, American Honors, Academic Affairs, A.A., Union College of Union County, NJ, B.A., Kean University, M.P.A., Kean University

Isaias Rivera, Center Director, Workforce Innovation Business Center, Industry-Business Institute, B.A., Lafayette College

Stephanie Robinson, Student Services Specialist, Educational Opportunity Fund, B.A., New Jersey City University, M.B.A., New Jersey City University

Beatriz Rodriguez, Assistant Dean of Students, Dean of Students, A.A.S., Union College of Union County, NJ, B.S., Saint Peter's College, M.S., Thomas A. Edison State

Eric Rodriguez, Student Services Generalist, One Stop Operations, A.A., Northampton Community College, B.A., Kean University

Cynthia M. Roman, Student Services Specialist, Advising, Career, and Transfer, A.A., Brookdale Community College, B.A., College of St. Elizabeth, M.A., College of St Elizabeth

James Russo, Assistant Dean of Social Sciences, Business, and History, B.A., Thomas Edison State College, M.A., Seton Hall University, Ed.D., Seton Hall University

Karen Ryan, Laboratory Technician, Academic Affairs, B.A., Rutgers University

William C. Salus, Manager, Print Shop, B.S., La Roche College

Lily Sanchez-Ruiz, Recruiter, Office of Admissions, B.A., Kean University

Laura Sanzari, Student Services Specialist, Distance Education, Academic Affiars, B.A., New Jersey City University, M.A. New Jersey City University

Christopher Sapara-Grant, Director of Facilities, Finance and Operations, B.A., University of Science & Technology, M.Arch., Syracuse University

Frances Saulino, Student Services Generalist - CCOG, Student Development, B.A., Rowan University, M.A., Rowan University

Elizabeth Schade, Director of the Institute for Intensive English, Academic Affairs, M.S. Columbia University

Jodie Schoch, Academic Specialist/Director of Clinical Education, Respiratory Care, Academic Affairs, B.S., Independence University

Tania Scott, Student Services Associate, College Life, A.A. Union College of Union County, NJ

Susana Sequeira, Academic Specialist, Architecture, Academic Affairs, B.S., Kean University, M.Arch., New Jersey Institute of Technology

Cheryl Shiber, Director of Grants, Finance and Operations, B.A., William Smith College, M.P.A., Seton Hall University

Faraz Siddique, Associate Dean of STEM, Academic Affairs, B.S., New Jersey City University, M.S., New Jersey Institute of Technology, Ed.D., New Jersey City University

Donovan Smalls, Director of the Business Center, Academic Affairs, B.S., Kean University, M.B.A., Fairleigh Dickinson University, Ed.D., Morgan State University

Raenisha Smith, Title V ExCEL Student Services Specialist, Academic Affairs, B.S., Rutgers University, M.A. Rutgers University

Kweli Snowden, Director of Learning Resources, Academic Affairs, B.S., Lincoln University, M.S., Pace University

Marlene Sousa, Assistant Vice President, Finance and Operations, B.S., Rutgers, State University

Jennifer Stevens, Student Services Generalist, One Stop Operations, B.A., Kean University

Morgan Stiles, Communication Center Coordinator, Communication Center

Tevin Stokes, Student Services Generalist, Educational Opportunity Fund, B.A., Montclair State University

Gillyam Suazo, Assistant Director of EOF, Educational Opportunity Fund, A.S., Union College of Union County, NJ, B.A., Kean University

Anne Suriano, Human Resources Generalist, Talent Management, Human Resources, B.S., SUNY, M.S., Cornell University

Bethann Sutherland, Manager of Help Desk Services, Information Technology, A.A.S., Union College of Union County, NJ

Lauren P. Swierc Falkowski, Assistant Dean for Academic Affairs, Academic Affairs, B.A., Drew University, M.A., Seton Hall University, Ed.D., Johns Hopkins University

Shahrzad Taghdissi, Academic Specialist, Chemistry, M.S., Rutgers University

Morgan Thompson, Student Services Specialist, Student Success Initiatives, B.A., Caldwell University, M.A., Caldwell University

Shelly Threatt, Student Services Generalist, Educational Opportunity Fund, A.A., Union College of Union County, NJ, B.A., New Jersey City University

Nicole M. Torella, Communication Center Generalist, Communications Center, B.A., Rutgers, State University, M.A., Seton Hall University

Jozlyn Townsend, Student Services Associate, One Stop Operations, A.A., Union College of Union County, NJ

Aldai Toussaint, Center Generalist, Workforce Innovation Business Center, Industry-Business Institute, B.S., Caldwell University

Patsy Toxtle, Admissions and Enrollment Generalist, Office of Admissions, B.A., Kean University

Patricia Traynor, Student Services Associate, One Stop Operations, A.A.S., Union County Technical Institute

Victoria Ukachukwu, Dean of Plainfield Campus and Allied Sciences, Academic Affairs, B.S., University of Ibadan, Ph.D., Georgia Institute of Technology

Jean Valencia, Student Services Generalist, One Stop Operations, A.A. Union College of Union County, NJ, B.A. Kean University

Joanna Vasquez, Associate Registrar, Registrar's Office, Union College of Union College, NJ, M.I.S., Rutgers University

Kaitlyn Veliz, Coordinator of Stewardship & Donor Relations, Foundation, A.A., Union College of Union County, NJ, B.A., Drew University

Johanna Vera, Program Coordinator, Continuing Education, A.S., Union College of Union County, NJ, B.A., Kean University

Katherine Vivanco, Student Services Generalist, Financial Aid, A.A., Union College of Union County, NJ, B.A., Rutgers University

Tawn D. Walker-Cohen, Coordinator of High School Initiatives, Office of Admissions, B.A., Fairleigh Dickinson University, M.Div., Virginia Union University Samuel DeWitt Proctor School of Theology

Cate Wananda, Student Services Associate, One Stop Operations, M.A., Rutgers University, M.L.S., Rutgers University

Cloteal Webb, Student Services Associate, One Stop Operations, A.S., Union College of Union County, NJ

Marlene White, Associate General Counsel/Executive Director of Procurement, Finance and Operations, B.A., Barnard College of Columbia University, J.D., Brooklyn Law School

Valerie Wilbon, Student Services Generalist, Student Success Initiatives, B.A., Rutgers University

Lavon A. Williams, Associate Director of Student Success Initiatives, Student Success Initiatives, A.A.S., State University of NY, B.A., Plattsburgh State University, M.S., State University of NY, Ed.D., Rowan University

Jacqueline Zdziarski, Student Services Generalist, Continuing Education, B.A., Rutgers University

Andrew S. Ziner, Executive Director of Institutional Research, Assessment, Planning, and Research, B.A., University of South Florida, M.A., University of South Florida, Ph.D., University of North Texas

Faculty

Patricia L. Adams, Associate Professor, Social Sciences/Business/History Division, A.A.S., Union College, B.A., Montclair State University, M.S., Thomas Edison State

Mandana Ahsani, Senior Professor, Social Sciences/Business/History Division, B.S., National University of Iran, M.Ed., University of Illinois, M.A., Rutgers University, Ph.D., Rutgers University

Lenard C. Anyanwu, Senior Professor, Social Sciences/Business/History Division, B.A., University of Texas, M.A., University of Texas, Ph.D., University of Texas

John Arezzi, Assistant Professor, Social Sciences/Business/History Division, A.A., County College of Morris, B.A., Kean University, M.A., Seton Hall University

Marjorie Barnes, Associate Professor, Humanities Division, B.A., Richard Stockton College, M.A., Temple University

Wendy Barnes-Thomassen, Associate Professor, Humanities Division, B.A., Louisiana State University, M.F.A., California Institute of the Arts, Ph.D., Drew University

Carol L. Biederstadt, Associate Professor, Humanities Division, B.A., Rutgers University M.Ed., Temple University, D.Litt., Drew University

Amy L. Boyd, Associate Professor, Science/Technology/Engineering/Math Division, B.A., Georgian Court College, M.S., New Jersey Institute of Technology

Anna Brophy, Senior Professor, Science/Technology/Engineering/Math Division, B.A., Rutgers University, M.S., Stevens Institute of Technology, Ph.D., Rutgers University

Fatima Broxton-Robinson, Assistant Professor, Humanities Division, B.A., Smith College, M.A., Naropa University

Elsa Bruguier, Librarian, Learning Resources Division, B.A., East Stroudsburg University, M.L.S., Rutgers University, M.A., Georgian Court University

Katy J. Cedano, Associate Professor, Humanities Division, B.A., Universidad Tecnológica de Santiago, M.Ed., Seton Hall University

Susannah M. Chewning, Senior Professor, Humanities Division, B.A., Warren Wilson College, M.A., University of Bristol, M.Phil., Drew University, Ph.D., Drew University

Michele Cislo, Associate Professor, Allied Sciences Division, B.S.N., William Paterson University, M.A., New York University

Stanley Cohen, Professor, Science/Technology/Engineering/Math Division, A.B., Harvard College, M.S., University of Pennsylvania, M.S., Montclair State University

Robert Comeau, Professor, Humanities Division, A.A., Union College of Union County, NJ, B.A., Seton Hall University, M.A., Drew University, M.Phil., Drew University

Virginia Crisonino, Professor, Science/Technology/Engineering/Math Division, B.A., Jersey City State College, M.A., Jersey City State College

Carl E. Cuttita, Professor, Humanities Division, B.A., CUNY, M.A., CUNY

Mahua De, Senior Professor, Institute for Intensive English, B.A., Jadavpur University, M.A., Kean University, M.A., Jadavpur University, Ed.D., Rutgers University

Andre De Sandies, Professor, Institute for Intensive English, B.A., Rutgers University, M.A.T., Fairleigh Dickinson

Caroline Doty, Associate Professor, Science/Technology/Engineering/Math Division, B.S., Michigan State University, M.S., Seton Hall University

Yanzheng Duan, Senior Professor, Science/Technology/Engineering/Math Division, B.S., Zhengzhou University, M.S., Harbin Institute of Technology, Ph.D., The University of Iowa

Jennifer A. Ebert, Associate Professor, Science/Technology/Engineering/Math Division, B.S., New Jersey Institute of Technology, M.A., New Jersey Institute of Technology

Tracy M. Felton, Senior Professor, Science/Technology/Engineering/Math Division B.S., Howard University, Ph.D., Rutgers University

Elliot Fisher, Professor, Science/Technology/Engineering/Math Division, B.S., CUNY, M.S., CUNY

Roberto Garcia,Assistant Professor, Humanities Division, A.S., Union College of Union County, NJ, B.A., Kean University, M.F.A., Drew University

Joanne Gouveia, Senior Professor, Humanities Division, A.A.S., Rochester Institute of Technology, B.F.A., Rochester Institute of Technology, M.F.A., Marywood University

Patricia Green-Douglas, Assistant Professor, Social Sciences/Business/History Division, B.S., Northern Caribbean University, M.B.A., LaSierra University, M.A.E., East Stroudsburg, DBA, Capella University

Sherry Heidary, Associate Professor, Science/Technology/Engineering/Math Division, B.S. Polytechnic University, M.S. Penn State University

George C. Hildrew, Senior Professor, Humanities Division, B.F.A. Philadelphia College, M.F.A., Indiana University

Xuemei Hu, Senior Professor, Social Sciences/Business/History Division, B.A., Zhejiang University, M.A., University of Hawaii, Ph.D., University of Hawaii

Valerae M. Hurley, Senior Professor, Social Sciences/Business/History Division, B.A., Monmouth College, M.A., Monmouth University, M. Phil, Drew University, Ph.D., Drew University

Warren D. Jenssen, Senior Professor, Science/Technology/Engineering/Math Division, A.A., Union College of Union County, NJ, B.A., Rutgers University, Ph.D., Rutgers University

Gina A. Kabak, Senior Professor, Social Sciences/Business/History Division, A.A., Union College of Union County, NJ, B,S., Fairleigh Dickinson University, M.S.M., Thomas Edison College, DBA, Capella University

Deborah Kemp-Jackson, Professor, Institute for Intensive English, B.A., Rutgers University, M.Ed., Rutgers University, M.A., Educational Technology, New Jersey City University

Joanne P. Kennedy, Associate Professor, Science/Technology/Engineering/Math Division, B.A., CUNY, M.A., Columbia University, M.Ed., Rutgers University

Mushtaq Khan, Senior Professor, Science/Technology/Engineering/Math Division, B.S., Osmania University, M.S., Aligarh Muslim University, Ph.D., Aligarh Muslim University

Larry Kwon, Associate Professor, Science/Technology/Engineering/Math Division, B.S., Vaughn College Aeronautics Technology, M.A., Columbia University

Tarik Lagnaoui, Associate Professor, Science/Technology/Engineering/Math Division, B.S., University of Alaska, M.S., College of Charleston

Zhen Li, Associate Progressor, Science/Technology/Engineering/Math Division, B.A., Shanghai University, M.A., New Jersey City University

Rama Lohani-Chase, Associate Professor, Social Sciences/Business/History Division, B.A., Tribhuvan University, M.A., Tribhuvan University, M.A., Drew University, Ph.D., Rutgers University

Marci L. MacGregor, Associate Professor, Humanities Division, B.A., East Carolina University, M.A., Rutgers University

Katherine Mastrantonio, Associate Professor, Humanities Division, A.A., County College of Morris, B.A., Hofstra University,. M.A., Montclair State College

Joyce A. Maxwell, Associate Professor, Humanities Division, B.S., University of Maryland, M.A., Temple University, Ed.D., Columbia University

Marie-Helene McAndrew, Assistant Professor, Allied Sciences Division, B.S., Kean University, D.P.T., The College of Saint Scholastica

Derek S. McConnell, Professor, Institute for Intensive English, B.A., University of Richmond, M.A.T., Quinnipiac University, M.A., SUNY

Joan P. McGowan, Senior Professor, Social Sciences/Business/History Division, A.A., Union College of Union County, NJ, B.A., Syracuse University, M.A., Syracuse University, Ed.D., Argosy University

Mary F. Meeks, Senior Professor, Humanities Division, B.A., Brooklyn College, M.Phil., Drew University, Ph.D., Drew University

Linda Milteer, Professor, Science/Technology/Engineering/Math Division, B.S., Richard Stockton College, M.A., University of California, Berkeley

Sophia Mitra, Professor, Humanities Division, B.A., Bidhannagar College, M.A., Calcutta University, M.S., University of New Haven, Ed.D., Rowan University

Marie Montes-Matias, Associate Professor, Science/Technology/Engineering/Math Division, B.S., University of Puerto Rico, Ph.D., Rutgers University

Massoumeh Nahvi, Senior Professor, Science/Technology/Engineering/Math Division, B.S., Teheran University, Ph.D., UMDNJ

Anthony L. Nicoli, Senior Professor, Humanities Division, B.F.A., University of Massachusetts, M.F.A., Rutgers University

Christiana C. Nwachukwu, Associate Professor, Allied Sciences Division, A.S., Anambra State University of Technology, B.S., Anambra State University of Technology, M.S.N., UMDNJ/Ramapo College NJ, D.N.P., Sacred Heart University

Thomas M. Ombrello, Senior Professor, Science/Technology/Engineering/Math Division, B.A., Herbert Lehman College, M.S., Rutgers University, Ph.D., Rutgers University

Phillip Papas, Senior Professor, Social Sciences/Business/History Division, B.A., Hunter College, M.A., Hunter College, M.Phil. CUNY, Ph.D., CUNY

Howard Pomann, Associate Professor, Institute for Intensive English, B.A., SUNY, M.A., New York University

Marc Postiglione, Associate Professor, Social Sciences/Business/History Division, B.A., Long Island University, M.A., Saint Joseph Seminary & College

Vikul B. Rajpara, Associate Professor, Science/Technology/Engineering/Math Division, B.C., South Gujarat University, M.A., University of South Dakota, M.C., South Gujarat University, Ph.D., University of South Dakota

Saif U. Rao, Professor, Science/Technology/ Engineering/Math Division, B.S., Bahauddin Zakrya University, M.S., University of The Punjab M.App.Sc., University of New South Wales

David A. Rivera, Associate Professor, Allied Sciences Division, B.A., Gallaudet University, M.S., McDaniel College

Cynthia A. Roemer, Senior Professor, Science/Technology/ Engineering/Math Division, B.A., Fairleigh Dickinson, M.A.T., Fairleigh Dickinson, Ed.D., Columbia University

Beth Rothman, Senior Professor, Institute for Intensive English, B.A., New York University, M.S., Columbia University, M.Ed., The College of NJ, D.P.T., UMDNJ

Michele Rotunda, Associate Professor, Social Sciences/Business/History Division, B.A., Rutgers University, M.A., Rutgers University, Ph.D., Rutgers University

Jeff W. Shalan, Senior Professor, Humanities Division, B.A., Drew University, M.A., University of Wisconsin - Madison, Ph.D., University of Wisconsin - Madison

Laurie Sheldon, Professor, Allied Sciences Division, B.A., Rutgers University, M.P.A., M.P.H., American Military University

Wallace E. Smith, Senior Professor, Social Sciences/Business/History Division, A.S., State University of New York at Canton, B.A., Daemen College, M.S., Buffalo State College, M.Ed, Columbia University, Ed.D., Columbia University

Donna M. Sonsiadek, Associate Professor, Allied Sciences Division, A.A.S., Middlesex County College, B.S.N., Kean College of NJ, M.S.N., Gwynedd-Mercy College

Nan Statton, Associate Professor, Social Sciences/Business/History Division, B.A., Skidmore College M.A., Syracuse University, M.L.S., Rutgers University

Ellen J. Stavitsky, Professor, Institute for Intensive English, B.A., SUNY, M.Ed., Rutgers University, M.Ed., Rutgers University

Carrie B. Steenburgh, Professor, Institute for Intensive English, B.A., Vassar College, M.A., University of Massachusetts

Emma Trevena, Librarian I, Learning Resources Division, M.S., State University of New York at Albany

Karen Venturella, Librarian, Learning Resources Division, B.S., St. Joseph's University, M.A., Columbia University, M.L.S., University of Pittsburgh

Casey Williams, Librarian I, Learning Resources Division, M.I., Rutgers University

Vincent Wrice, Senior Professor, Science/Technology/Engineering/Math Division, B.S., Florida A & M University, M.S., University of Phoenix, J.D., Rutgers University

James J. Xu, Senior Professor, Science/Technology/Engineering/Math Division, B.S., Zheng Zhou Institute, M.S., New Jersey Institute of Technology, Ph.D., New Jersey Institute of Technology

Andres Zavaleta, Senior Professor, Science/Technology/Engineering/Math Division, B.S., Montclair State University, Ph.D., University of Nevada

Wenyao Zhang, Senior Professor, Science/Technology/Engineering/Math Division, B.A., Anshan Iron & Steel, M.S., East China Normal University, Ph.D., University of Iowa

Karen J. Zielony, Senior Professor, Humanities Division, B.A., Queen's College, M.A., New York University, Ph.D., New York University

Faculty Emeriti

Tracy Abar, Assistant Professor, STEM Division

Donald Anderson, Associate Professor, History/Urban Studies

Harlan Andrews, Professor, Biology

Helen Aron, Senior Professor, English (ESL)

W. Allen Ashby, Senior Professor, English

John Barstow, Associate Professor, Engineering/ Technology/Architecture

Paula Belmonte, Associate Professor, Social Sciences/Business Division

Anne Bertin, Assistant Professor, Institute for Intensive English

Barbara H. Buettner, Professor, English

Richard Bonner, Professor, Engineering/Technology/Architecture

James Brophy, Professor, Economics/Government/History

Alison Brown, Senior Professor, Economics/Government/History

Louis Campo, Associate Professor Engineering/Technology/Architecture

John Carmichael, Senior Professor, Business

Barrie Chi, Associate Professor, English (ESL)

Gerald Coleman, Associate Professor, English

Frank J. Coppa, Associate Professor, Economics/Government/History

Theresa Cosmas, Associate Professor, Practical Nursing and Allied Health

Pedro Cosme, Professor, Social Sciences/Business Division

Raymond J. Daly, Associate Professor, Biology

Rachel Dare, Associate Professor, Chemistry

Xuehua Deng, Associate Librarian

Carol A. Devries, Associate Professor, Administrative Support

Pushpa B. Doshi, Professor, Chemistry

Jose Marie Duvall, Associate Professor, Economics/Government/History

Barbara Engler, Senior Professor, Psychology

Paul Evans, Senior Professor, Psychology/Sociology

John Fludas, Senior Professor, English

Barbara H. Foley, Associate Professor, Institute for Intensive English

Eileen M. Forestal, Senior Professor, Psychology/Sociology

Vivienne Gilroy, Professor, Psychology

Tonnie Glick, Assistant Professor, Paramedic Program

Edward Golda, Senior Professor, Modern Language

Susan Goodman, Librarian

Maureen Greenbaum, Associate Professor, Computer Science

Joan Grodnick, Professor, English

Adrienne P. Hawley, Senior Professor, Modern Language

Elizabeth Hawthorne, Senior Professor, STEM Division

Jane Healy-McMillan, Instructor, Biology

Ruth Henderson, Senior Professor, Business

Dorothea Hoffner, Senior Professor, English

Lawrence D. Hogan, Senior Professor, Economics/Government/History

Risetta Jacobs, Senior Professor, Psychology

Martha Jones, Associate Professor, Chemistry

Donald Julian, Professor, Fine Arts

Eileen T. Kaufman, Professor, Psychology/Sociology

Carol Keating, Associate Professor, Biology

Marianne Kerwin, Associate Professor, Mathematics

Marinna Kolaitis, Associate Professor, English/English as a Second Language

Leonard T. Kreisman, Senior Professor, Economics/Government/History

Raymond Krukovsky, Senior Professor, Psychology

Jean M. Lane, Professor, Mathematics

Donna Lawless, Associate Librarian

Rosemarie Lewandowski, Senior Professor, English

Sol Libes, Professor, Engineering/Technology/Architecture

James F. Lind, Senior Professor, Chemistry

Jack Lowenthal, Senior Professor, Engineering/Technology/Architecture

James Magliano, Professor, Mathematics.

Mary Ann Mahoney, Associate Professor, English (ESL)

Jerry L. Marsee, Associate Professor, Administrative Support

Toby Marx, Professor, Social Sciences/Business Division

Maria Mattaliano, Associate Professor, English

Judith Mayer-Rosen, Associate Professor, English

Susan Mc Loughlin, Associate Professor, STEM Division

Timothy McCracken, Senior Professor, English

John McDermott, Associate Professor, Institute for Intensive English

Barbara McGoldrick, Senior Professor, Chemistry

James M. McGowan, Associate Professor, Social Sciences/Business Division

Richard E. McKeeby, Associate Professor, Biology

Marcia Meyers, Senior Professor, Biology

Michael Z. Murphy, Assistant Professor, Humanities

Jerry Nathanson, Professor, Engineering/Technology/Architecture

Michael O'Donnell, Associate Professor, Computer Science

Karl E. Oelke, Senior Professor, English

Brian J. Pankuch, Senior Professor, Chemistry

Jack Parl, Professor, English

Barbara Pawlowski, Associate Professor, Business

Deborah Pires, Associate Professor, English

Hugh Potter, Senior Professor, Biology

Lillian Prehn-Reseter, Professor, Biology

Vicki Reback, Associate Professor, English

Patricia Rodihan, Associate Professor, Business

Helene Roholt-Moen, Professor, Modern Languages

William Rohrer, Senior Professor, STEM Division

Arthur Rose, Associate Professor, English

Constance F. Rubin, Senior Professor, English

Augusto Salvatore, Professor, Mathematics

Paola Salvini-Capasso, Associate Professor, Biology

Jacqueline Samuels, Associate Professor, English

Jessica Sand, Professor, Biology

Madeline Santoro, Senior Professor

Carol Saunders-Corbin, Associate Professor, Practical Nursing and Allied Health

Celeste Schaffer, Associate Professor, Mathematics

Karen Schmidt, Associate Professor, Social Sciences/Business Division

William Schryba, Head of Techincal Service, Library

Robert Schultz, Professor, Engineering/Technology/Architecture

Harry Sheather, Professor, Chemistry

Cynthia Singer, Senior Professor, Business Administration

Mark D. Singer, Senior Professor, Criminal Justice

Regina Siemoneit, Professor, Psychology/Sociology

Steven L. Slavin, Senior Professor, Economics

Robert St. Amand, Senior Professor, Chemistry

Susan Stock, Professor, English

Barry P. Surett, Professor, Business Administration

Thaddeus Tharney, Professor

Emmanuel Thomas, Senior Professor, Sociology

Paul Tse, Professor, Fine Arts

Helen Van Bergen, Associate Professor, Practical Nursing

Charles Richard Varela, Senior Professor, Psychology/Sociology

Barbara Weskot, Senior Professor, Fine Art

George R. Willard, Senior Professor, Modern Languages

Irene C. Williams, Instructor, Biology

Lawrence Wollman, Associate Professor, Institute for Intensive English

John Zoppi, Professor, English

Czeslawa Zydzik, Assistant Professor, Practical Nursing

JFK Muhlenberg Harold B. and Dorothy A. Snyder Schools of Nursing and Medical Imaging

Administration & Faculty

Administration

Coleen Kumar, PhD, RN, CNE
Dean, Schools of Nursing and Medical Imaging
AAS, Long Island College Hospital School of Nursing, BSN, The College of Staten Island, MSN, The College of Staten Island, PhD, Seton Hall University

Nee Barnor, MS, RDMS
Program Director, Sonography
Radiography, Diploma, Altoona Hospital of Radiography, BS, Mount Aloysius College, MS, Bloomsburg University

Judith DeLucia, MA, RN
Associate Dean, Nursing
BSN., Hunter College-Bellevue School of Nursing, MA, New York University

Agatha Yang, DNP, RN
Associate Dean, Nursing
BSN., California State University, MSN., Thomas Edison University, DNP., Chamberlain University

Donna Murray, MSN, RN,APN, WNP-BC
Director of Student Engagement
Nursing Diploma, Muhlenberg Regional Medical Center School of Nursing, AS, Union College of Union County, NJ, BSN, Bloomfield College, MSN, Rutgers University

Sean Richardson, EdD, RT (R, CT)
Program Director, Faculty, School of Radiography
Diploma, University of Guyana, BTech, Cape Peninsula University of Technology, MSc, Charles Sturt University, Postgraduate Certificate Clinical Education, Charles Sturt University, Doctor of Education, University of Liverpool

FACULTY

Haydee Alvarez, MSN, RN
School of Nursing
BSN, St. Francis College, MSN, Walden University

Thangamani Aravindan, MSN, RN, CCRN, BSN
School of Nursing
BSN, Tamilnadu MGR Medical University, MSN, Tamilnadu MGR Medical University, DNP Chamberlain University

Emily Arowosaye, MSN-Ed, RN
School of Nursing
BSN, Bloomfield College, MSN, West Coast University

Bolade Ajiboro, MSN/MPH, RN
School of Nursing
BSN, College of Staten Island, MSN/MPH Grand Canyon University

Irene Bellew MSN, RN, OCN, CEN
School of Nursing
Lead Faculty, NURM 221
Nursing, Diploma, Saint Peter's Medical Center, BSN, Thomas Edison State College, MSN, Thomas Edison State University

Pooja Bhandari, BAMS, RDMS
Clinical Coordinator/Instructor School of Sonography
Diagnostic Medical Sonography, BAMS, Dayan and Ayervedic Medical College, India

Huifang Cheng, MSN, RN, APN, NP-C, CCRN, CWOCN
School of Nursing
Nursing, BS Anhui Bengbu Medical University, China, MSN, Monmouth University

Gabrielle Cheskowich, MSN, RN CPEN
School of Nursing
AAS, Excelsior College, BSN, Excelsior College, MSN, Chamberlain University

Melissa Dobler, Ph.D(c), MHA, RN, CCRN
School of Nursing
Simulation Laboratory Coordinator
Diploma in Nursing, Muhlenberg Regional Medical Center School of Nursing, AS, Union College of Union County, NJ, BSN, University of Phoenix, MSN/MHA, University of Phoenix, PhD(c), University of Phoenix

Maria Farber, MSN, RN, BC
School of Nursing
Nursing, AAS, Middlesex County College, BSN, Kean University, MSN, Kean University

Kathleen Fredericks, ADN, RN
School of Nursing and Medical Imaging
Student Health Nurse
Diploma in Nursing, Muhlenberg Regional Medical Center School of Nursing, AS, Union College of Union County, NJ

Maxine Hylton, MSN-Ed, RN
School of Nursing
Nursing AAS, Medgar Evans College, BSN, University of Phoenix, MSN-Ed, University of Phoenix

Mohammed D Islam, BS, RT(R), ARRT
School of Diagnostic Medical Imaging - Radiography Clinical Coordinator Instructor
Radiography, Diploma, Muhlenberg Regional Medical Center, AS, Union College of Union County, NJ, AAS,Passaic County Community College, BS, New Jersey City University, BS, Thomas Edison State University

Evelyn Janusz, MPA, BA, RT, (CT)(MRI)(M)
School of Diagnostic Medical Imaging
Clinical Preceptor
Radiography, Elizabeth General Radiography School, Union College of Union County, NJ, BA, Kean University, MPA, Kean University

Susan Karcher, MSN, RN
School of Nursing
Lead Teacher, Generic Nursing Track NURM 222
Nursing, Diploma, Muhlenberg Regional Medical Center School of Nursing, AS, Union College of Union County, NJ, BSN, Kean University, MSN, Kean University

Margaret Keller, DNP, MS, RN, APN
School of Nursing
Nursing, AAS, Middlesex County College, BSN, Kean University, DNP, Rutgers University

Amy King MSN, RN, APN
School of Nursing
Nursing Diploma, JFK Muhlenberg Harold B. Dorothy A. Snyder School of Nursing, AS, Union College of Union County, NJ, BA, Douglas College, MSN, Rutgers University

Jennifer S. Knox, MSN, RN, CPEN
Lead Teacher, Generic Nursing Track NURM 122
AS, Middlesex County College and UMDNJ, BSN, Monmouth University, MSN, Regis University

Ellen Lake, MSN, RN
School of Nursing
Faculty, Generic Nursing Track NURM 119
Nursing Diploma, Muhlenberg Regional Medical School of Nursing, AS, Union College of Union County, NJ, BSN, Bloomfield College, MSN, New Jersey City University

Mary Beth Maffey, MSN, RN
School of Nursing
Diploma in Nursing, Trinitas School of Nursing, AS, Union College of Union County, NJ, BSN, College of Saint Elizabeth, MSN, College of Saint Elizabeth

Kathleen Mastice, PhD, RN, OCN, CNE
School of Nursing
Faculty, Accelerated Nursing Track
Diploma, Muhlenberg Regional Medical Center School of Nursing, AS, Union College of Union County, NJ, BSN, Wagner College, MS, Wagner College, PhD, Capella University

Folasade Oyebode, MSN/MPH, RN
School of Nursing
AAS, OAUTHC School of Nursing, BSN, Grand Canyon University, MSN/MPH, Grand Canyon University

Michelle Roth, MSN, RN, CNE
School of Nursing
Faculty, Generic Nursing Track, NURM 121
BSN, Adelphi University, MSN, Monmouth University

Gregory Schaller, RT (R)
Clinical Preceptor School of Medical Imaging - Radiography
AAS, County College of Morris

Nasima Bina Siddiqi, MS, RN
School of Nursing
AS, Suffolk Community College, RN to MSN, University of Phoenix

Traci Steinberg, MSN, RN, CPAN
School of Nursing
AS, Beth Israel School of Nursing, BSN, Hunter College, MSN, Grand Canyon University

Marie Taylor, MSN, RN, CCM
School of Nursing
BS, Rutgers University, MSN, Walden University

Marla L. Waithe, AAS, RT (R) (ARRT)
Clinical Preceptor School of Medical Imaging - Radiography
Diploma, New York City Technical College, AAS Military Police Diploma, Acting E-5, United States Army Veteran

John Paul Whigan, MSN, RN, OCN
School of Nursing
BSN, Centro Escolar University, MSN, Columbia University

Trinitas School of Nursing/RWJ Barnabas Health

Administration & Faculty

School Administration

Roseminda Santee, DNP, MA, RN, NEA-BC, CNE, ANEF
Dean, School of Nursing
Diploma, Zamboanga General Hospital School of Nursing, BSN, Concordia College, Philippines, MA, Jersey City State College, MA, New York University, DNP, Fairleigh Dickinson University

Constance Kozachek, PhD, MSN, RN-BC, CCRN
Associate Dean
AS, Middlesex County College, NJ, BSN, MSN, Kean University, NJ, PhD, Rutgers University

Faculty

Maryse Annulysse, MSN, RN, CCRN, Diploma, Elizabeth General Medical Center School of Nursing, NJ, AS, Union College of Union County, NJ, NJ, BA, St. Lawrence University, BSN, MSN, College of St. Elizabeth, NJ

Teresa Bowers, MS, RN, BC, CNE, CCRN, CCNS, Diploma, Christ Hospital School of Nursing, NJ, BSN, Jersey City State College, NJ, MS, Rutgers University, NJ

Illya DeVera-Bonilla, MSN, RN, Diploma, Trinitas School of Nursing, AS, Union College of Union County, NJ, BSN, College of St. Elizabeth, NJ, MSN, College of St. Elizabeth, NJ

Lisa DiGiovanni, EdD, MSN, RN-BC, CHSE, AAS, Middlesex County College, NJ, BSN, Kean University, NJ, MSN, University of Phoenix, AZ, EdD, Walden University, MN

Christiana Enworom, MSN-NE, RN, CDP,CMDP,LNHA, Diploma, Muhlenberg School of Nursing, NJ, AS, Union College of Union County, NJ, BSN, Kean University, NJ, MSN, Chamberlain University, IL

Janine Graf-Kirk, DNP, RN, BC, CNE, Diploma, St. Vincent's Medical Center, School of Nursing, NY, BSN, Fairleigh Dickinson University, NJ, MA, New York University, NY, DNP, Walden University, MN

Ana Paula Grillo-Dias, MSN, RN, Diploma, Trinitas School of Nursing, AS, Union College of Union County, NJ, BSN, College of St. Elizabeth, NJ, MSN, College of St. Elizabeth, NJ

Gabriela Kaplan, MSN, RN, AOCN, AAS, Kingsborough Community College, NY, BSN, Excelsior College, NY, MSN, Hunter College, NY, DMH (c), Drew University, NJ

Katherine Mojica, MSN, RN-BC, Diploma, Elizabeth General Medical Center School of Nursing, AS, Union College of Union County, NJ, BSN, Kean University, MSN, Kean University, NJ

Laura M. Moskaluk, MSN, RN, CNE, BSN, Ohio State University, OH, MSN, College of St. Elizabeth, NJ

Marie O'Donnell, MSN, RN, Diploma, Trinitas School of Nursing, AS, Union College of Union County, NJ, BSN/MSN, Thomas Edison University, NJ

Gabriella Segovia, MSN, RN, BSN, Rutgers University, NJ, MSN, St. Elizabeth University, NJ

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Maria Dimi, MBA, RRT-NPS, Regional Administrative Director, Respiratory & Neurodiagnostic Services, RWJBH Cooperman Barnabas Medical Center

Jose Mujia, BS, RRT**,** Director, Respiratory Care & Sleep Center, RWJBH, Somerset Medical

William Nemeth, RRT, RPFT, NPS, Director, Respiratory Care, HMH JFK Medical Center

Jose Olivera, RRT-NPS, Director, Respiratory Care Services, University Hospital

Killol Patel, MD, Pulmonary & Critical Care, RWJBH, Medical Director, Respiratory Care Program, Union College of Union County, NJ

Hantz Ricot, MPH, RRT, Director, Respiratory Care, Trinitas Regional Medical Center

Robert Sigler, MS, RRT, Director, Respiratory Care, RWJBH Robert Wood Johnson University Hospital

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Derek Harrison, General Manager, USA Sports Group

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You need to know..

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.

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... Academic Information should be directed to the office of the Vice President for Academic Affairs.

... Tuition and Fees should be directed to the office of the Vice President of Finance and Operations.

... Student Services, including admissions, registration, placement testing, and office hours should be directed to the office of the Vice President for Student Development.

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Non-Discrimination and Anti-Harassment Policy

Union 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 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 of Operations
Title IX Coordinator
MacDonald Hall
Phone: 908-709-7046
Email: 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 College homepage or contact Mr. Lotano.

Student Accommodation Requests:

Ms. Karen Cimorelli
Director of Disability Support Services and Veteran Affairs
Helen E. Chaney Student Services Center, Room SD-15
Phone: 908-709-7164
Email: karen.cimorelli@ucc.edu
All requests for accommodations from Union 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 of Operations
Section 504 Administrator and ADA Coordinator
MacDonald Hall
Phone: 908-709-7046
Email: vincent.lotano@ucc.edu
All requests for accommodations from Union 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.

COLLEGE CONTACTS
OFFICE LOCATIONS & PHONE NUMBERS

COLLEGE OFFICE HOURS

College office hours are 8:30 a.m. - 4:30 p.m. Monday through Friday during the fall and spring terms and 8:00 a.m. - 5:15 p.m. Monday through Thursday during the summer terms. For the most current information, visit www.ucc.edu.

COLLEGE-WIDE PHONE NUMBERS

Main College Number

(908) 709-7000

Office of Admissions

(908) 737-7518

Union County College Foundation

(908) 709-7505

CRANFORD CAMPUS

1033 Springfield Avenue
Cranford, NJ 07016

PUBLIC SAFETY OFFICE
Student Development Building, SD-108
(908) 709-7152

BOOKSTORE
Campus Center, (908) 709-7619
(0614mgr@follett.com)

COLLEGE LIFE
Campus Center, (908) 709-7074
(collegelife@ucc.edu)

DEAN OF STUDENTS
MacDonald Hall, A-135, (908) 709-7139
(DeanofStudents@ucc.edu)
- Social Work Services (socialworkservices@ucc.edu)

HELEN E. CHANEY STUDENT SERVICES CENTER
Student Development Building
(908) 709-7500
- Office of Admissions (admissions@ucc.edu)
- Advising, Career, and Transfer Services (advising@ucc.edu)
- Disability Support Services (disabilitysvc@ucc.edu)
- Educational Opportunity Fund (eof@ucc.edu)
- Financial Aid (financialaid@ucc.edu)
- International Student Services
- Student Accounts (studentaccountsoffice@ucc.edu)
- Testing Center (testingcenter@ucc.edu)
- Veteran Student Services (veterans@ucc.edu)

ELIZABETH CAMPUS

Sidney F. Lessner Building
12 West Jersey Street
Elizabeth, NJ 07202

Elizabeth I. Kellogg Building
40 West Jersey Street
Elizabeth, NJ 07202

DEAN OF THE ELIZABETH CAMPUS AND INSTITUTE FOR INTENSIVE ENGLISH
Kellogg Building, K-525
(908) 965-6091

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

BOOKSTORE
Kellogg Building, 1st Floor
(908) 965-6068
(0615mgr@follett.com)

INSTITUTE FOR INTENSIVE ENGLISH
Lessner Building, E-414
(908) 965-6031
(iie@ucc.edu)

DEAN OF STUDENTS
(908) 709-7139
(DeanofStudents@ucc.edu)
- Social Work Services
Lessner Building, E-307
(socialworkservices@ucc.edu)

STUDENT SERVICES CENTER
Lessner Building, 1st Floor
(908) 965-6050
- Office of Admissions (admissions@ucc.edu)
- Advising, Career, and Transfer Services (advising@ucc.edu)
- Disability Support Services (disabilitysvc@ucc.edu)
- Educational Opportunity Fund (eof@ucc.edu)
- Financial Aid (financialaid@ucc.edu)
- International Student Services
- Student Accounts (studentaccountsofstud@ucc.edu)
- Testing Center (testingcenter@ucc.edu)
- Veteran Student Services (veterans@ucc.edu)

TRINITAS SCHOOL OF NURSING
Kellogg Building, 3rd Floor
(908) 659-5203
(nursing@ucc.edu)

PLAINFIELD CAMPUS

Health Sciences Building
225 Roosevelt Avenue
Plainfield, NJ 07060

Logos Building
232 East Second Street
Plainfield, NJ 07060

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Logos Building, LG-108
(908) 791-4917

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(908) 791-4922

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(908) 709-7619
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(908) 709-7139
(DeanofStudents@ucc.edu)
- Social Work Services
Logos Building, LG-10
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STUDENT SERVICES CENTER
Logos Building
(908) 412-3550
- Office of Admissions (admissions@ucc.edu)
- Advising, Career, and Transfer Services (advising@ucc.edu)
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- Educational Opportunity Fund (eof@ucc.edu)
- Financial Aid (financialaid@ucc.edu)
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Scotch Plains, NJ 07076

DEAN OF THE SCOTCH PLAINS AND VIRTUAL CAMPUS
Scotch Plains Campus, SP-316
(908) 709-7569

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Scotch Plains Campus, 1st Floor
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(908) 709-7619
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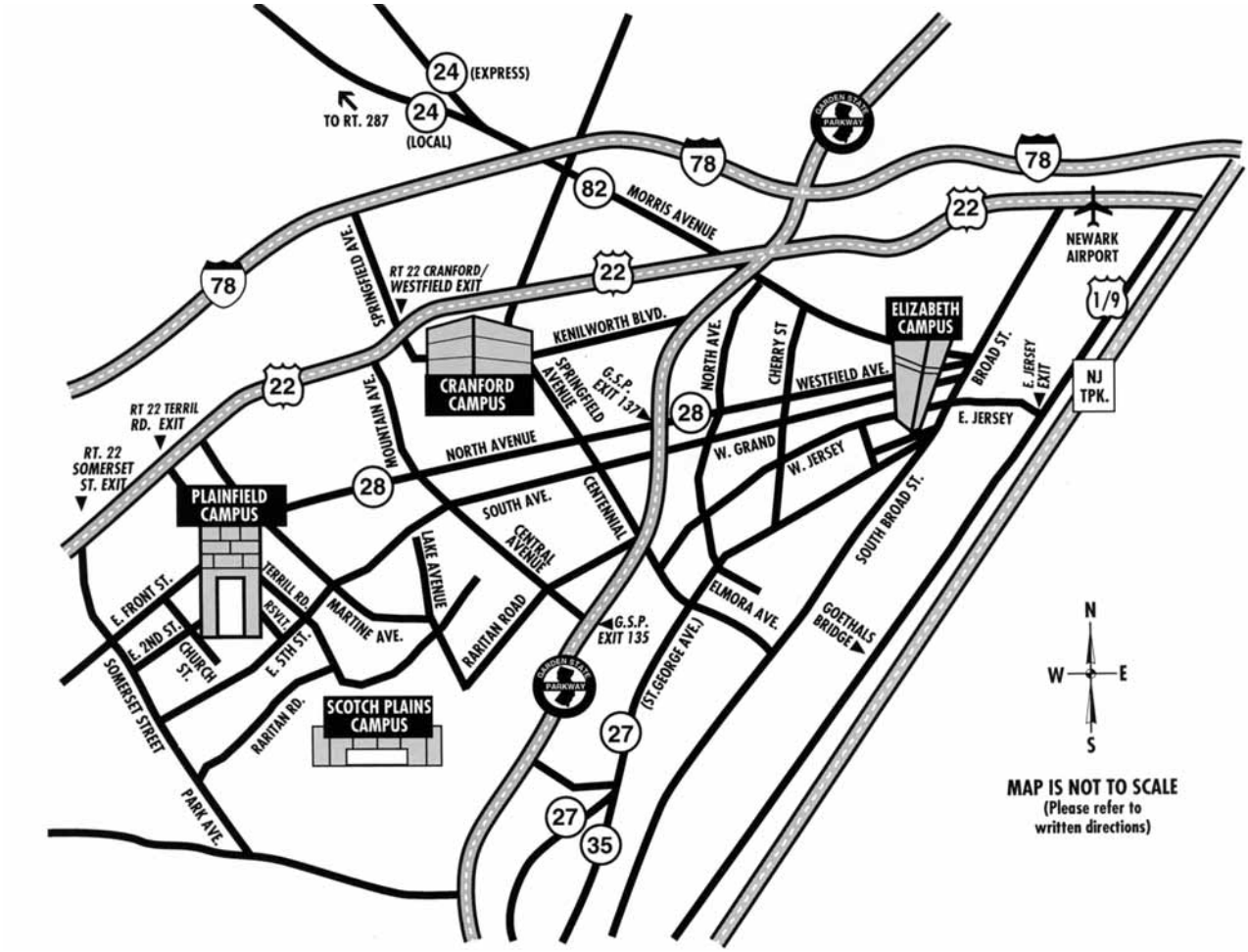

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1033 SPRINGFIELD AVENUE, CRANFORD, NJ 07016-1599
(908) 709-7000

- **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.

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40 WEST JERSEY STREET, ELIZABETH, NJ 07202-2314
(908) 965-6000

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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

1776 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

UNION COLLEGE
of Union County, NJ

1033 Springfield Avenue
Cranford, NJ 07016
908-709-7000

www.ucc.edu