

# **NAUGATUCK VALLEY COMMUNITY COLLEGE**

**2022-2023 COLLEGE CATALOG**

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# WELCOME TO NVCC

Hello, and welcome to Naugatuck Valley Community College!

NVCC is a vibrant, diverse, and caring community of students, faculty, and staff. Here, you will meet people of all ages, backgrounds, and cultures - last count we had students representing more than 50 countries! Over 30% of our students are Hispanic, and NVCC was designated as a Hispanic Serving Institution (HSI) in 2015. Such diversity in perspectives, experiences, and abilities contributes to the rich fabric of culture at NVCC and allows us to continuously work toward our Mission and Vision.

Being able to take courses and earn degrees on two campuses in Waterbury and Danbury means that you help us become an "Engine of Change" in our communities.

With over 70 associate degrees and more than 30 certificates through our academic programs, and an abundance of non-credit programs that lead to certifications, we are a comprehensive college where you find opportunities for your future: To strengthen and expand your skills, to start a new career, to complete a degree or certificate and transfer to a four-year university or to go directly into the workforce.

What you'll find at NVCC is a high quality of education that comes from dedicated faculty who love to teach and from staff who will support you every step of the way. We believe that learning occurs everywhere at NVCC: in our classrooms, through your engagement with clubs and other events and activities, and in your connections to faculty, staff, and your peers. We all share a commitment to helping you succeed and reach your goals.

In a 1963 lecture, Ralph Ellison reminds us that in our diverse society, "Education is all a matter of building bridges." Here at NVCC we know how to build bridges: we consistently find ways to span differences and connect with students and others; to build pathways among courses toward degrees, transfer, and future employment; and to create links to resources for students who need support.

Warmly,

Lisa Dresdner, Ph.D.  
NVCC Chief Executive Officer

## The NVCC Mission

Naugatuck Valley Community College offers quality, affordable education and training in response to evolving community needs by providing opportunities to individuals and organizations to develop their potential.

## The NVCC Vision

At NVCC, the word "community" is central and our students are considered our most sacred trust and our finest asset. Collaboration within and outside the confines of our immediate surroundings defines our actions and is the base for the rich intellectual, educational, cultural and civic-minded experiences we provide our students.

## Five Goals

1. At NVCC, students achieve their goals.
2. NVCC faculty and staff make a difference-at the college, in the community, in their fields of study and in the lives of students.
3. NVCC programs meet and beat academic and industry standards.
4. NVCC is an engine of change within Waterbury, Danbury, and the broader community.
5. NVCC is an effective, performance-based institution.

In addition to these five goals, the Strategic Plan outlines 15 strategic initiatives-what we will do to meet these goals.

## About NVCC

Naugatuck Valley Community College (NVCC) resulted from the merger of Mattatuck Community College and Waterbury State Technical College by the Connecticut General Assembly in 1992. The General Assembly's 1989 legislation to consolidate the boards of

trustees governing the technical colleges and the community colleges was followed in 1992 with the merger of Waterbury State Technical College and Mattatuck Community College. The merged college was called Naugatuck Valley Community-Technical College which was shortened in 1999 to Naugatuck Valley Community College (NVCC). Read more about the rich history of what is now Naugatuck Valley Community College.

NVCC is a public, two-year, associate degree granting, co-educational, non-residential college and one of 17 institutions comprising Connecticut State Colleges and Universities (CSCU). NVCC is governed by the Connecticut Board of Regents for Higher Education.

The College, conveniently located at the crossroads of state highway 8 and Interstate 84, is accessible by public transportation. Students registered for credit courses are eligible for a bus pass through the transportation fee associated with their registration.

NVCC has a 22-town service area including towns and cities in the west central part of the State of Connecticut. Waterbury and Danbury with populations of over 110,000 and 85,000 respectively are considered the anchor cities in a region flanked by small rural and suburban communities.

NVCC's 110-acre Waterbury Campus is just minutes from Exit 18 off of I-84. The campus features Student and Fine Arts Centers with two theaters; art, music and dance studios; multi-media labs and rehearsal rooms, a tutoring center Learning Resource Center, Academic Center for Excellence, observatory, game room and so much more.

Technology Hall, home of the College's Advanced Manufacturing Technology Center (AMTC) features the latest classroom technology, advanced laboratories, a freestanding greenhouse and state-of-the-art facilities for our engineering, manufacturing, automotive and hospitality programs. The College's newly renovated Founders Hall is home to our Center for Health Sciences where student learn in modern classrooms and progressive health care simulation labs.

Known for its beautiful gardens, Naugatuck Valley Community College boasts a long list of themed gardens including Shakespeare, Biblical, Medicinal, Sustainability and Rain Gardens along with a Poets' Circle. The College is rich in horticultural foliage, with 14 specialized horticulture gardens on campus for students to learn first-hand about the plants and their culture using sustainable designs and landscaping. There are also 11 other landscaped plantings surrounding buildings and beautifying traffic islands.

NVCC's new and expanded 20,000 square foot campus at 190 Main Street in Danbury opened in the fall of 2017. Thousands of students attend classes at the campus conveniently located in Danbury's vibrant downtown. In addition to credit courses, non-credit Learn 2 Earn job training and skill-building courses are available in popular health care and business fields like certified nurse aide (CNA), phlebotomy, bookkeeper, office professional and security officer, providing a quick turnaround into the workforce. The Campus also provides English as a Second Language (ESL) to non-native English speakers, from beginning to advanced levels.

Naugatuck Valley Community College (NVCC) offers an enriching educational experience for degree-seeking students and those who are committed to lifelong learning. We offer a real alternative for students who want to save money and earn their associate degree without accruing large amounts of student debt.

Learn more about the unique programs and facilities offered at our College or find out different ways you can pay for college to minimize your debt after graduation.

The College is comprehensive in its offerings of over 100 associate degree and credit certificate programs to help students meet their goals:

- Associate degrees that enable seamless transfer to 4-year universities
- Associate degrees and certificates designed for in-demand careers
- Work-force education, including non-credit proficiency certificates

NVCC offers hundreds of non-credit learning opportunities that are customized to fulfill industry-specific training, or job-skills upgrading. Technical and technological education is a key component of our programs and services. Our specialized training programs serve the needs of the people and the industries of the State of Connecticut. Such diversity makes the institution a social, cultural, and intellectual environment for people of all ages.

Credit programs are managed through the four academic divisions of the College. <https://nv.edu/academics/academic-programs/academic-divisions>

Workforce and certificate programs are managed through Non-credit and Lifelong Learning. <https://nv.edu/academics/workforce-education/workforce-training-courses-and-certificates>

Students range from youth in elementary and middle school, to young adults just out of high school, to mature adults returning for employment, retraining or leisure time activities. Learners who are non-native speakers of English take English as a Second Language (ESL) classes to help them achieve personal, professional, and academic goals. Businesses and industries access additional training, learning resources, and cultural enrichment opportunities for their employees.

The institution accommodates the needs of the physically challenged. It houses Smart classrooms, large and small classrooms, specialized labs for science, art, and engineering; computer and technology labs; a learning resources center, a student center, and a fine arts center that provides spaces for music and drama productions.

Naugatuck Valley Community College offers quality, affordable education and training in response to evolving community needs by providing opportunities to individuals and organizations to develop their potential. At NVCC, the word "community" is central and our students are considered our most sacred trust and our finest asset. Collaboration within and outside the confines of our immediate surroundings defines our actions and is the base for the rich intellectual, educational, cultural, and civic-minded experiences we provide our students. Read more about our college, our community, our goals, and our vision for the future in our Strategic Report.

The College provides services from a highly qualified full-time faculty complemented by a talented pool of instructors and trainers. Outstanding learner-centered instruction is central to our mission. NVCC prepares students for transfer to other institutions and for the world of work. A strong core of general education gives students a broad background that prepares them to change or modify career direction or to transfer to other institutions of higher education.

Degree and certificate programs include computer training, writing and research. For those who come to the College unprepared for its rigors, a developmental skills program supports critical thinking, writing, and math competency to help students succeed.

The College involves all students in mathematics, reading, and writing and provides students with supportive services in counseling, tutoring, testing, and individualized assistance.

NVCC offers additional supportive student services including advising, financial aid, health services, peer tutoring, services for veterans, minority student services, a bookstore, student government, student organizations and activities.

Art, dance, drama, film and music presentations are regular offerings at the college as the instructors develop student and community potential in the performing and fine arts. The magnificent stages, workshops, dance, and music studios provide the faculty, students, and community with settings that make the classrooms come alive with sight and sound.

The Max R. Traurig Library is open to visitors from the community and provides the region with a collection of over 30,000 books, print subscriptions to magazines, journals, and newspapers, and CDs and DVDs for education and entertainment. Members of the community, including alumni, may also visit the Library to sign up for a Community Borrower account, which allows for book borrowing, use of Library computers and on-campus access to Wi-Fi, electronic periodical databases, and books.

## **Accreditation Statement**

Naugatuck Valley Community College is accredited by the New England Commission of Higher Education (NECHE).

Accreditation of an institution of higher education by the New England Commission indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Commission is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution. Inquiries regarding the accreditation status by the New England Commission should be directed to the administrative staff of the institution. Individuals may also contact:

NEW ENGLAND COMMISSION OF HIGHER EDUCATION (NECHE)

301 Edgewater Place, Suite 210  
Wakefield, MA 01880  
781-425-7785 • email: cihe@neasc.org

The College is also accredited by the Connecticut Board of Regents for Higher Education.

In addition to comprehensive accreditation by the New England Commission of Higher Education, some degree and certificate programs have the following specialized accreditations:

Committee on Accreditation in Physical Therapy Education  
Commission on Accreditation for Respiratory Care  
Joint Review Committee on Education in Radiologic Technology  
National Association for the Education of Young Children  
National Institute for Automotive Service Education (ASE)  
National Automotive Technicians Education Foundation (NATEF)  
Accreditation Commission for Education in Nursing Inc. (ACEN) [www.acenursing.org](http://www.acenursing.org)  
National Association of Landscape Professionals (NALP)  
Engineering Technology Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

## Statutory Mandate

The legislative mandate for community-technical colleges, as provided in Public Act 92-126, Section 27(a) states:

1. The primary responsibilities of the regional community-technical colleges shall be:
  1. to provide programs of occupational, vocational, technical and technological and career education designed to provide training for immediate employment, job retraining or upgrading of skills to meet individual, community and state man-power needs;
  2. to provide programs of general study including, but not limited to, remediation, general and adult education, and continuing education designed to meet individual student goals;
  3. to provide programs of general study for college transfer representing the first two years of baccalaureate education;
  4. to provide community service programs as defined in subsection 5(b) of this section;
  5. to provide student support services including, but not limited to, admissions, counseling, testing, placement, individualized instruction and efforts to serve students with special needs.
2. As used in this section, "community service programs" mean educational, cultural, recreational and community-directed services which a community-technical college may provide in addition to its regular academic program. Such community service programs may include, but shall not be limited to:
  1. activities designed to enrich the intellectual, cultural and social life of the community;
  2. educational services designed to promote the development of skills for the effective use of leisure time;
  3. activities and programs designed to assist in the identification and solution of community problems; and
  4. utilization of college facilities and services by community groups to the extent such usage does not conflict with the regular schedule of the college.

## Continuing Notice of Nondiscrimination;

**Continuing Notice of Nondiscrimination:** Naugatuck Valley Community College does not discriminate on the basis of race, color, religious creed, age, sex, national origin, marital status, ancestry, disability, including but not limited to present or past history of mental disability, learning disability or physical disability, sexual orientation, gender identity or expression or genetic information in treatment or employment at the College, in admission or access to the College, or in any other aspect of its programs and activities. In addition, the College does not discriminate in employment on the additional basis of veteran status or criminal record. The College is required by Title VI of the Civil Rights Act of 1964 (Title VI), Section 504 of the Rehabilitation Act of 1973 (Section 504), Title II of the Americans with Disabilities Act of 1990 (Title II), Title IX of the Education Amendments of 1972 (Title IX), the Age Discrimination Act of 1975 (Age Act), and their respective implementing regulations at 28 C.F.R. Part 35 and 34 C.F.R. Parts 100, 104, 106 and 110, not to discriminate on the basis of race, color, or national origin (Title VI); disability (Section 504/Title II); sex (Title IX); or age (Age Act). Inquiries concerning the application of each of the aforementioned statutes and their implementing regulations to the College may be referred to the applicable College Coordinators: Kimberly Carolina, CSCU Manager of Equal Employment Opportunity, [kcarolina@commnet.edu](mailto:kcarolina@commnet.edu); Angelo Simoni, CSCU Title IX Coordinator - CSU System Office, 860-723-0165; Sarah Gager, Dean of Student Services/Deputy Title

IX Coordinator, Section 504/Title II/ADA/Age Act Coordinator (Students), Naugatuck Valley Community College, Room K509a, 750 Chase Parkway, Waterbury, CT, 203-575-8086 or to the U.S. Department of Education, Office for Civil Rights, at (617) 289-0111 or 5 Post Office Square, 8th Floor, Boston, MA 02109-3921. (Rev 10/22/21)

**This catalog/publication is true and correct in content and policy.** Naugatuck Valley Community College reserves the right to change requirements, courses, prerequisites, regulations, tuition, fees and other policies without prior notice. Upon written request, the CEO of the College may make waivers of these policies due to extenuating circumstances. The catalog does not constitute a contract and is for informational use only.

## **Becoming Connecticut State Community College**

A merger of Connecticut's 12 community colleges is underway. Connecticut State Community College (CT State), a statewide college comprised of all Connecticut's current community college locations, plans to open its doors in the Fall 2023. Here are some important facts students need to know:

- the final commencement ceremony for Naugatuck Valley Community College is scheduled for May 2023. Ceremonies will continue to be held at each location as campuses of CT State,
- as a part of the planned merger, students continuing their studies beyond summer term 2023 will be matched with the CT State program that most closely aligns with their spring 2023 major and are offered at the Waterbury and/or Danbury locations,
- students who begin an Associate degree program in January 2023 will complete their degree at the merged college, Connecticut State Community College,
- in all cases, the College is committed to students completing their education with a minimum of disruption and staying in touch with your advisor/program coordinator is essential,
- further details can be found and will be updated on the Frequently Asked Questions page: [www.ct.edu/ctstate/academics](http://www.ct.edu/ctstate/academics).

## ADMISSIONS

### Admission Policy

Naugatuck Valley Community College is an open admission institution with selective placement into some programs and courses. Acceptance to any degree or certificate program requires that an applicant be a graduate of an approved secondary school or have earned either a State High School Equivalency Diploma or a General Educational Development (G.E.D.) diploma. Seniors graduating from a CT high school are accepted into a degree or certificate program and permitted to register prior to their date of high school graduation under the condition that they submit proof of high school completion by July 7 of the year in which they graduated high school. Failure to do so will result in the student being removed from their program of study and switched to non-degree status.

Admission to the College does not necessarily mean admission to all courses and programs. Several degree and certificate programs have specific admissions criteria. Please refer to the Programs of Study section of the catalog for specific admission requirements.

Students who do not have a high school diploma or its equivalent may enroll at the College as non-degree students. **Non-degree students are not eligible for financial aid, but may take advantage of the Connecticut Tuition Payment Plan.**

High school students who demonstrate sufficient scholastic ability and who present written approval from their high school principal or a designated representative may register for courses as non-degree students on a space available basis.

Students may gain admission to Naugatuck Valley in either the fall semester (August) or spring semester (January). In some programs, admission is specifically for the fall or spring semester only.

Classes are offered days, evenings and weekends, as well as online. Part-time students enroll for a maximum of 11 credits; full-time students enroll for a minimum of 12 credits. Courses vary in the amount of credit they carry; however, most courses are worth three (3) credits.

### Admission to English as a Second Language Courses

The English as a Second Language (ESL) courses at Naugatuck Valley Community College are designed to serve the needs of nonnative speakers of English. The ESL Department offers a multi-level program to increase students' proficiencies in English in all four areas: reading, writing, listening and speaking.

In addition to the basic application procedures, a writing sample and the English Proficiency (LOEP) portion of the Accuplacer Placement Test must be completed before students can register for the courses. The English placement for non-native speakers of English is determined by the ESL office and is based primarily on these tests.

### Admission to the Allied Health and Nursing Programs

The Allied Health and Nursing programs have specific admission criteria which can be found in the Programs of Study section of the catalog. Admission to these programs is highly selective and based on academic record and assessment testing. A program application for admission must be submitted in addition to the College Application.

### Admission to Technology Degree and Certificate Programs

In addition to the standard requirements necessary for admission to the College, students applying for admission to technical degree and certificate programs should possess a solid background in science and mathematics. Refer to the programs of study section of the catalog for details.

## Admission to Non-credit Programs

Non-credit programs are open to all citizens in the region for professional and personal development. Formal college application is not required. Registration is accepted for all courses. Certification programs have specific requirements that should be understood prior to registering. Customized programs are specially tailored for organizations and companies that address workforce demands/ needs. Lifelong learning staff are available to provide information. To see full list of programs visit [nv.edu/nc](http://nv.edu/nc). Non-credit staff can be reached at [nc@nv.edu](mailto:nc@nv.edu) or by calling 203-575-8029.

## Application Deadlines

The College admits students on a first-come, first-served basis. For the fall semester, which begins in late August or early September, preference is given to applications received by **June 1**. For the spring semester, which begins in January, preference is given to applications received by **December 15**. Applicants will be accepted after these dates provided openings are available.

Applications for the Physical Therapist Assistant Program are available in **April** and must be submitted by **August 1**. Applications for Radiologic Technology and Respiratory Care Programs are available **October 1** and must be submitted by **January 15**. The online application for the Nursing Program is available **November 1** and must be submitted by **February 1**.

**Note: All admission dates to select programs are subject to change. Please meet with your advisor for program updates.**

## Application Procedures

### New Students

The following procedures apply to all individuals planning to enroll in degree or certificate programs for the fall or spring semesters:

- Complete applications online at [NV.edu/apply](http://NV.edu/apply), please email [NVCC@nv.edu](mailto:NVCC@nv.edu) with any questions.
- Upload an **official** copy of the high school transcript or supply a copy of the high school diploma with the date of graduation.\* Equivalency Diploma recipients must submit a copy of the equivalency diploma or G.E.D. results.

*\* Applicants who are presently in high school may submit their completed application with an in-progress high school transcript.*

- All new and transfer students seeking admission into a degree program who were born after 12/31/56 are required by state law to upload immunization documentation for two (2) doses of measles, mumps and rubella (MMR). Those born as of 1/1/80 also need to submit documentation for two (2) doses of varicella (chicken pox).

### Transfer Students

Transfer students who have not previously attended Naugatuck Valley must follow the procedures for New Students.

Students who are interested in receiving credit for course work completed at another institution must request that an official copy of their college transcript be sent to the Admissions Office at Naugatuck Valley. Students who have attended institutions outside Connecticut should also provide course descriptions for the courses they would like to transfer.

Transfer credit may be granted for comparable courses completed at regionally accredited colleges and universities. The total amount of transfer credit granted may not exceed 75 percent of the credits required by the College in a specific program. Transfer credits will not be used in the calculation of grade point averages. For more information see "*Transfer Courses*" section.

### Immunization Requirements

By law, all higher education institutions in Connecticut require each full-time or matriculating student born after December 31, 1957 to provide proof of adequate immunizations before permitting the student to enroll.

## **New and Transfer Students**

If you were born after December 31, 1956, Connecticut State Law requires that all full-time (degree seeking and non-degree/ non-matriculating) and part-time matriculating students enrolled in postsecondary schools be adequately protected against measles, mumps and rubella (MMR). In addition, all full-time and matriculating students, except those born in the continental United States prior to January 1, 1980, must provide proof of immunization against varicella (chicken pox). Students must have two (2) doses of each vaccine administered at least one (1) month apart to insure adequate immunization.

## **Services for Special Student Populations**

### **International Student Admission**

Students who are not citizens or permanent residents of the United States, but who are interested in studying at Naugatuck Valley Community College on the F1 Student Visa, may do so by applying as international students.

### **Application Deadlines for F-1 Applicants**

Students are admitted for the fall and spring terms. We recommend that international students apply by the following dates:

- The fall term begins in August; the application deadline is June 15.
- The spring term begins in January; the application deadline is November 1.

International students planning to attend Naugatuck Valley on an F-1 student visa must present the following documents:

### **Admission Application**

Students must apply for admission by going to [nv.edu/Apply](http://nv.edu/Apply).

The following documents should be uploaded into the application portal:

#### **Academic Records**

Proof of your graduation from high school or university, in the form of a diploma or transcript (translated to English). You may be asked to use a foreign transcript evaluation service, such as the following:

- **World Education Services**  
P.O. Box 5087  
Bowling Green Station  
New York, NY 10274  
Phone (212) 966-6311 or (800) 937-3895  
Fax (212) 739-6100  
[www.wes.org](http://www.wes.org)
- **Center for Educational Documentation, Inc.**  
Evaluation Service  
PO Box 170116  
Boston, MA 02117  
Phone: (617) 338-7171  
Fax: (617) 338-7101  
E-mail: [info@cedevaluations.com](mailto:info@cedevaluations.com)  
Web site: [www.cedevaluations.com](http://www.cedevaluations.com)

- **Globe Language Service, Inc.**  
Evaluation Service  
305 Broadway Ste. 401  
New York, NY 10007  
Phone: (212) 227-1994  
Fax: (212) 693-1489  
E-mail: info@globelanguage.com  
Web site: www.globelanguage.com

### **Immunization Records**

Proof of immunization against MMR and varicella must be provided. Refer to the section on immunization requirements.

### **Evidence of English Proficiency**

International students are required to submit proof of English proficiency. Preferably, applicants should take the TOEFL or IELTS exam. Enrollment in English as a Second Language coursework may be required until a higher level of English proficiency is attained.

### **Tuition and Fees**

All holders of temporary visas (such as F-1) will be charged the out-of-state tuition rate, unless and until they present evidence of an approved or pending change to permanent residency, as well as evidence that establishes Connecticut residency in accordance with state law. For information about current tuition rates, go to <https://nv.edu/Portals/0/Documents/Bursars/NVCC2022.2023TuitionFees.pdf>.

### **Housing**

There are no dormitories on campus. International students must arrange for their own housing.

### **Transportation**

NVCC is a commuter college and students are expected to make arrangements for transportation to and from the College. International students may not be immediately eligible for a Connecticut driver's license. Upon verification of payment of the student activities fee, enrolled students will qualify for a local Waterbury bus pass.

### **Forms and Documentation Needed for Form I-20**

International students who are in F-1 student visa status, or who need F-1 student visa status, must work with the international student advisor to obtain the Form I-20. In order to receive the Form I-20, **international students must prove that they have the funds immediately available to pay for the first year of tuition and living expenses.** International students with families need to add \$3,000 per dependent accompanying them to the US. For details on the amount of funding required, please contact the International Student Advisor.

To apply for the I-20, students must submit the forms and documentation listed below.

1. International Student Information Sheet.
2. Certification of Financial Support: This form contains a summary of the student's financial resources and ability to pay for tuition, fees, and living expenses.
3. Promise of Cash Support or **Form I-134**, signed by the sponsor and notarized: This form states that the sponsor will assume some or all responsibility for the student's expenses during his/her stay in the U.S.
4. Promise of Free Room and Board: This form is necessary if a local sponsor is providing the student's housing and food.
5. Bank statements proving the availability of adequate funds
6. Copy of passport identity pages.
7. Students who are already in the U.S. should also provide copies of the I-94 card and visa stamp. Students applying from outside the U.S. will need to bring these documents to the international student advisor upon arrival.

The Form I-20 will not be issued until all of the above items have been received. Students will then be advised on how to pay the \$350 SEVIS fee that is required for the student visa process. Please contact the International Student Advisor with any questions or concerns: (203) 575-8010.

## International Transfer Students

If you are transferring to Naugatuck Valley from another school in the United States, you should follow these additional steps:

1. Provide a copy of your current I-20 to the International Student Advisor
2. Notify the DSO (Designated School Official) at your current school that you plan to transfer to NVCC and ask them to:
  - Release your SEVIS record to NVCC and
  - Complete the bottom portion of the Transfer Verification Form (available from the NVCC International Student Advisor).

## Housing

There are no dormitories on campus. International students must arrange for their own housing.

## Transportation

NVCC is a commuter college and students are expected to make arrangements for transportation to and from the College. Upon verification of payment of the student activities fee, credit students qualify for a local Waterbury bus pass. International students may not be immediately eligible for a Connecticut driver's license.

## Out-of-State Fees

All holders of temporary visas (e.g. F, J, and H) will be charged the out-of-state tuition rate, unless and until they present evidence of an approved or pending change to permanent residency, as well as evidence that establishes Connecticut residency in accordance with state law.

## Transferring In for International Students

If you are transferring to Naugatuck Valley from another school in the United States, you must follow these additional steps:

1. Provide a copy of your current I-20
2. Notify the DSO (Designated School Official) at your current school that you plan to transfer to NVCC and ask him/her to:
  - a. Enter into the SEVIS information system your "intent to transfer."
  - b. Enter into SEVIS a "transfer release date."
  - c. Complete the bottom portion of the Transfer Verification Form (available from the NVCC International Student Advisor).

## Non-Degree Students

Students who are interested in enrolling in individual credit courses, but who are not interested in pursuing a degree or certificate program, may elect to enroll as non-degree seeking students. Non-degree students complete a College Admissions Application at the time of registration. In some cases, non-degree students may be required to take academic skills assessment tests in English or mathematics and/or provide proof that prerequisites for specific courses have been met. Non-degree students are not eligible for financial aid, but may take advantage of the Connecticut Tuition Payment Plan. Non-degree students are not permitted to register for a full-time course load (12 credits or more).

## Underage Students

All students under the age of 18 must complete the following prior to registering for classes:

- Application for Admission
- Secondary Education Validation Form and the Accuplacer® Assessment Test
- Interview with the Assistant Director and a parent must be present. The interview is mandatory.

Students who will be turning 18 years of age during their year of graduation from high school and will not be attending the college until after their high school graduation do not need to complete the Secondary Education Form or meet with the Assistant Director.

At Naugatuck Valley Community College, Family Educational Rights and Privacy Act (FERPA) rights belong to the student, regardless of age. A "student" is a person who attends an educational institution that maintains educational records or personally identifiable information. Parents of community college students do not have a right to access their children's student records. In accordance with this regulation, students' college records will be released to parents only with the observed written consent of the student.

## **Senior Citizens**

Tuition, the college service and student activity fees are waived for Connecticut residents 62 years of age or over on a space available basis. Special fees such as material or supplemental fees must still be paid. Registration under this waiver begins on the first day of the semester/session and is restricted to classes with available seats. Non-credit Lifelong Learning courses are not eligible for tuition waiver.

## **Veterans**

In addition to completing the basic application procedures, veterans should contact the Veterans' Affairs Office at the College by calling 203-575-8006 prior to registering for classes. Once registered, the Veterans' Affairs Office will certify enrollment to the Veterans' Administration. To expedite the process of applying for benefits, the veteran should bring a DD214 (separation papers).

According to the Dependent Educational Assistance Act, wives and children of totally disabled veterans, widows and children of deceased veterans, and 100 percent totally disabled veterans are eligible to receive educational assistance while attending school. To expedite the process of applying for benefits, supporting documentation such as a marriage or birth certificate should be brought to the Veterans' Affairs Office. Veterans who served on active duty during specific periods of conflict may be eligible for tuition waivers. For more information, call Veterans' Affairs at 203-575-8006.

NVCC Office of Veteran Affairs offers a Veterans' Room where they can meet, network, and share experiences. The Veterans' Oasis is located in S411.

## **Admission with Advanced Standing**

### **Academic Credit for Military Experience**

Veterans may obtain transfer credit for courses successfully completed in the United States Armed Forces schools, provided that such courses are judged the equivalent of, and are applicable toward, degree requirements. Three credits in physical education are also granted for the completion of Basic Training.

### **Academic Credit for Work/Life Experience**

Naugatuck Valley promotes the practice of awarding credit in recognition of learning acquired through life experiences such as employment, volunteer activities, military training, special seminars and other methods. Students may apply for the evaluation of prior learning through one or more of the procedures listed:

**Credit by Examination** - Students may elect to have prior learning evaluated by either of the following examination options:

- College Level Examination Program (CLEP)
- The College Level Examination Program (CLEP) allows individuals to earn college credit for what they already know. NVCC awards credit for successful scores on CLEP exams. CLEP tests may be taken at Naugatuck Valley through the Testing Center.
- Credit by Examination - Some divisions and departments of the College produce their own examinations. Please contact your advisor or the testing center for more information.

## **Academic Credit for College Career Pathways (formerly Tech Prep)**

A high school graduate who was registered as a CCP student at their high school through the CCP program can apply their earned college credits toward a program of study at Naugatuck Valley Community College. A qualified high school student had to successfully complete approved articulated courses in 10th, 11th and/or 12th grade with a grade of "C" or better. The CCP student may be required to take the placement tests at the College. Parents of students under the age of 18 may be required to sign a parental consent form. For more information, contact the Academic Dean's Office.

## **Advanced Placement Testing**

Naugatuck Valley Community College, in alignment with state and national standards, grants academic credit on the basis of scores on the Advanced Placement Examinations (AP Exams) administered by the College Entrance Examination Board. Students who earn a score of 3 or higher receive credit for the courses for which the exams are stipulated as measures. All score reports must be submitted to Admissions.

## **New England Board of Higher Education (NEBHE) Reciprocal Program**

Naugatuck Valley Community College is authorized to participate in the NEBHE Reciprocal Program which is designed to encourage interstate enrollments in publicly supported degree granting institutions. A reciprocal agreement has been arranged among the six New England states to implement this program. Under this agreement, students enrolled in the NEBHE program pay tuition and fees which are substantially less than those listed for out-of-state residents.

A New England resident is eligible to participate in the program provided:

- The program of study is not offered at an in-state institution.
- The program of study is offered at both in-state and out-of-state institutions and the out-of-state institution is closer in traveling time to the applicant's legal residence.

Applicants must meet the admission requirements of the College and fall within the quota arrangements of the program. All other out-of-state applicants are required to pay the non-resident tuition and fees.

The NEBHE program is subject to change at any time.

## **Catalog Year Policy**

Students are responsible for completing the requirements for their major and degree that were in place upon their admittance to the College as matriculated (degree-seeking) students - this is considered the student's catalog year. (Note: If a student is readmitted to the College following a withdrawal or dismissal, he or she is responsible to complete the requirements in place on the new matriculation date.) Students may change their catalog year to the most current for their major by contacting the Registrar.

## REGISTRATION AND RECORDS

### Registration Procedures

#### New Students

Applicants who have been admitted to a degree or certificate program will be invited by e-mail or mail to register for courses by the Admissions Office at a specified date and time. Students must call to set up an appointment for New Student Registration.

#### Continuing Students

Continuing students and readmitted students may register during the current semester for the following semester. Times and locations for registration are announced by the registrar.

#### Former Students Seeking Readmission

Readmit students are those who have previously been accepted and who have attended Mattatuck Community College, Waterbury State Technical College, Naugatuck Valley Community-Technical College or Naugatuck Valley Community College, but who have been away from the College for two years or more.

A student to be readmitted to the college should:

- Must reapply to the college as a Readmit Student.: Sign In (elluciancrmrecruit.com.)
- Meet the advisor/program coordinator to review the program's current requirements, and plan course selection.
- Unless previously tested, make arrangements to take the placement test through the Testing Center.
- If required, provide written documentation regarding proof of measles, mumps, rubella, and varicella (chicken pox) immunization to the Office of the Registrar (unless previously provided).
- Contact the Naugatuck Valley Community College Registrar's Office to ensure that official copies of high school and college transcripts are still on file, especially if the student has been away from the College for five years or longer.
- Submit official college transcripts if the student has attended another college or university while away from Naugatuck Valley Community College, to the Office of the Registrar K516.
- The advisor/program coordinator may advise the student to invoke the **Fresh Start Option**. This option is only available to students with a cumulative GPA less than 2.0 and after an absence of two or more years. A student may invoke a Fresh Start Option only once at Naugatuck Valley Community College and must do so prior to or during the semester of readmission.

#### Readmit Students - Fresh Start Option

A student readmitted to Naugatuck Valley after an absence of two or more years (four semesters, not including summer) may return without the handicap of a grade average of less than 2.0 earned previously at Naugatuck Valley Community College. To do so, the student must invoke the **Fresh Start Option**. This Option permits previous grades to be removed from the grade point average. Credit is kept for all courses passed with grades of "P", "C-", or higher. There is no credit for previous courses in which grades of "D+" or lower were earned. All courses and grades remain on the record.

A student may invoke Fresh Start Option only once at Naugatuck Valley Community College and must do so prior to or during the semester of readmission. Since Naugatuck Valley is an "open admission/selective placement" college, neither the use of Fresh Start Option nor repeat poor performance precludes further readmission(s) of the student.

The Fresh Start Option does not apply to any completed degree or certificate. A student must complete a minimum of 15 credits after returning to college under the Fresh Start Option to be eligible for a degree or certificate and for graduation honors.

**Note:** For purposes of grade point average, credit, and Fresh Start Option, courses previously taken at Waterbury State Technical College and/or Mattatuck Community College are considered to be courses taken at Naugatuck Valley Community College.

## **Cross Registration**

Full time students (12 or more credits) may be able to take up to two additional courses for no cost at another state-supported institution of higher education (including the Connecticut State Universities and the University of Connecticut) on a space-available basis if the course is not offered at NVCC.

## **Registration Between Connecticut Community Colleges**

Tuition and fees for students who register for general fund/tuition account courses at multiple colleges within the community-technical college system shall be charged as follows:

- Full-Time Students - Students who have paid the tuition and fees of a full-time student at their "home" institution shall be exempt from further charges. Copies of the student tuition and fee receipt from the "home" institution should be accepted by the "host" institution in lieu of payment.
- Part-Time Students - The charges for students who have paid the tuition and fees of a part-time student at their "home" institution and register for additional courses at a "host" institution shall not exceed the amount charged for a full-time student, if the student's combined registration at the "home" and "host" institutions would classify them as a full-time student. Copies of the student's tuition and fee receipt from the "home" institution should be accepted by the "host" institution, and the "host" institution should charge the difference between the full-time charges for tuition and fees and amount paid to the "home" institution as indicated on the "home" institution receipt. The "host" institution must notify the "home" institution of the multiple college registration. Any changes in student status which warrant a refund of tuition and fees will be based on the combined registration at the "home" and "host" institutions. Students who register at multiple colleges whose combined student status is less than full-time shall be charged tuition and fees as a part-time student for the semester credits registered at each of the respective colleges.

## **Overload Permission**

Course overloads will not be granted. However, in extenuating circumstances, Division Leaders, with the approval of the Dean of Academic Affairs, may authorize overloads to courses that have reached their limit (closed).

## **Course Cancellations and Changes**

Students will be notified by mail, e-mail, or phone of course cancellations. Courses may be cancelled due to insufficient enrollment. Faculty names and room assignments are subject to change due to required adjustments in the schedule. Students are encouraged to check their course schedules before arriving to their first session to verify the assigned room.

## **Academic Engagement Policy**

Students are required to participate in class in order to receive financial aid. Professors report all students who have not participated in class prior to the census date. The Financial Aid office is informed via email and financial aid is adjusted accordingly (and possibly cancelled). This will most likely result in a bill with the college. Proof of participation (for all classes) can be submitted to the Financial Aid office. If it is determined that the student is engaging in classes, financial aid will be reinstated and the hold will be removed. For the Board of Regents full Academic Engagement Policy see here.

## **Transfer**

Students may take courses at another college to be transferred to Naugatuck Valley Community College for credit. It is the student's responsibility to have an official transcript of the course work sent to the Office of the Registrar at NVCC for evaluation purposes. This transcript will be evaluated by the associate registrar and acceptable courses will be posted to the student's academic record. Students are encouraged to consult the associate registrar to ensure the transferability of a course from another institution before enrolling in the course. Transfer credit shall be awarded for comparable courses completed at other regionally accredited higher education institutions. Only credits for courses with grades of "C" or better or a grade of "P" are accepted in transfer only if transcript legend defines "P" as

representing a grade of "C" or better. The letter grade(s) assigned by the other institution shall not be recorded or included in the computation of the student grade point average.

Notwithstanding the number of degree credits which shall be granted in accordance with the foregoing, the student must complete at least 25 percent of the minimum credit requirements for the degree through coursework at the college awarding the degree.

When a student seeks transfer credit for technical or specialty courses into a program that is also accredited by a national or regional specialized accrediting agency, such credits must be from a comparably accredited program. In the case of a request for transfer credit for technical or specialty courses from a non-specially accredited program, the college shall provide appropriate means for the validation of the student's competency in the technical specialty course areas.

## Grade Reports

Semester grades will be available via the web approximately one week after the exam period. To view your grades online go to <http://my.commmnet.edu>.

## Transcripts and Enrollment Verification Requests

There is no charge for official transcripts. Official and unofficial transcripts are available at [my.commmnet.edu](http://my.commmnet.edu) via the online student information system, where our Parchment transcript service is available for most students. In the event the Parchment service is not available, a transcript request form can be obtained by contacting the Office of the Registrar either by phone at 203-596-2177 or by email at [records@nv.edu](mailto:records@nv.edu).

Enrollment Verifications are available approximately three weeks after the start of each semester. Enrollment Verifications are supplied through the National Student Clearinghouse. Students can print their own Enrollment Verification Certificate via the internet. By using their 8-digit student ID number and PIN, students can log onto <http://my.commmnet.edu>, click on Banner Student & Faculty Self-Service, then on Student Records, and then follow the Enrollment Verification Request link. This will connect directly to the National Clearinghouse. Enrollment verifications are available approximately three weeks after the start of each semester.

## Summer and Winter Sessions

Naugatuck Valley Community College welcomes students from other colleges and universities who wish to make up a course or earn advanced standing at their home institution. Credits earned at Naugatuck Valley Community College are generally acceptable at other colleges, but students are advised to consult their home institutions for information regarding transfer of credit.

Naugatuck Valley Community College students may attend the summer or winter session to lighten their study load during the regular academic year or to reduce the time needed to earn their degrees or certificates. Students are encouraged to check the appropriateness of their course selection with their advisors. Course offerings may be viewed online or printed from the College website on [my.commmnet.edu](http://my.commmnet.edu).

## Student Records

### Notification of Rights under the Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. **The right to inspect and review the student's education records within 45 days of the day the College receives a request for access.** Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. **The right to request amendment of an education record that the student believes is inaccurate.** Students may ask an appropriate College official to amend a record that they believe is inaccurate. The student should write to the College official,

clearly identify the part of the record he or she wants changed, and specify why he/she believes it is inaccurate. The College will notify the student of the decision. If the College decides not to amend the record as requested by the student, the College will advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing. **NOTE:** FERPA is not intended to provide a process to question substantive judgments that are correctly recorded. For example, the right of challenge does not allow a student to contest a grade in a course because the student believes that a higher grade should have been assigned.

3. **The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.** FERPA permits disclosure without consent to school officials with legitimate educational interests. A "school official" includes but is not limited to the following: a person employed by the College in an administrative, supervisory, academic, research or support staff position (including law enforcement and security personnel, counseling and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, collection agent or official of the National Student Clearinghouse); a person serving on the Board of Trustees who is authorized to act on its behalf; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities. **FERPA also permits disclosure of education records without consent in connection with, but not limited to:**
  - To comply with a judicial order or a lawfully issued subpoena;
  - To appropriate parties in a health or safety emergency;
  - To officials of another school, upon request, in which the student seeks or intends to enroll;
  - In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid;
  - To certain officials of the U.S. Department of Education, the Comptroller General, to state and local educational authorities, in connection with certain state or federally supported education programs;
  - To accrediting organizations to carry out their functions;
  - To organizations conducting certain studies for or on behalf of the College;
  - The results of an institutional disciplinary proceeding against the alleged perpetrator of a crime of violence to the alleged victim of that crime with respect to that crime.
  - Directory information as defined in the policy of the Board of Trustees.
4. **The right to refuse to permit the College to release directory information** about the student, except to school officials with a legitimate educational interest and others as indicated in paragraph 3 above. To do so, a student exercising this right must notify the Office of Registrar in writing. Once filed, this notification becomes a permanent part of the student's record until the student instructs the College, in writing, to remove it.
5. **The right to file a complaint with the U.S. Department of Education concerning alleged failures by Colleges to comply with the requirements of FERPA.** The name and address of the office that administers FERPA is:

**Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202-4605**

## Directory Information

The Board of Regents has designated the following as directory information: student names and addresses, dates of attendance, full vs. part-time student status, awards and honors and graduation date. For purposes of access by military recruiters only, telephone listings and, if known, age, level of education and major are also designated as directory information.

Colleges may disclose directory information without prior consent, unless a student has exercised the right to refuse to permit the College to release directory information in accordance with paragraph 4 above.

# FINANCIAL AID INFORMATION

## Financial Aid Policies

Financial aid is monetary assistance provided to undergraduate students who seek higher education. The cost of education beyond high school is expected to be paid by the student and/or the student's family. When the cost, however, is greater than the student's or the family's ability to pay, financial assistance is available. Most assistance programs are administered on the basis of "need" which is defined as the difference between the cost of attending a particular college and the family's ability to pay that cost. Cost includes tuition and fees, books and supplies, transportation, and miscellaneous expenses. The student's or the family's ability to pay is calculated through a needs analysis system approved by the United States Department of Education, Office of Student Financial Assistance.

The Financial Aid Office incorporates various types of financial aid into a "Financial Aid Package" for each student in an effort to help the student meet particular educational goals. If qualified, Naugatuck Valley Community College students can receive financial assistance for direct educational costs such as tuition, fees, books and supplies. Student status will be measured as follows:

- 6-8 credits                      1/2 time
- 9-11 credits                     3/4 time
- 12 credits and above         Full-time

Financial Aid Awards shall be prorated based on student status as recorded by the Record's Office at the time a payment list is generated. If an overpayment has been made, the aid dollars shall be replaced in the appropriate accounts. The order is as follows:

- self-help dollars will be restored to accounts.
- student help and college work study dollars will be returned to appropriate accounts.
- loan dollars will be returned to the College account, or to the federal government if a Direct Subsidized Stafford Loan, Direct Unsubsidized Stafford Loan, or Direct Plus Loan for Undergraduate Students is involved.

The cost of attending Naugatuck Valley Community College will vary depending on a number of factors: how many courses the student is taking, how far away and with whom the student lives, and whether the student has dependent or independent status. The expenses listed below are typical for a broad category of students attending Naugatuck Valley:

<b>Annual Budget</b>	
Tuition	\$4,740
Books	\$1,500
Transportation and Miscellaneous Expenses	\$6,293
Meals	\$2,142
<b>Total</b>	<b>\$14,675</b>

*Note: The budget is pro-rated for less than full-time students. (Costs subject to change.)*

## Eligibility for Financial Assistance

Common to all federal funding, to be eligible for financial assistance a student at the College must:

- be a United States citizen or an eligible non-citizen.
- have financial need as assessed by an eligible needs analysis system.
- be enrolled as a matriculated student at Naugatuck Valley Community College.

- be working towards a degree or certificate.
- maintain satisfactory academic progress.
- not be in default on any federal educational loan or owe a repayment on any federal grant at any institution.
- certify registration for Military Selective Service (if applicable).
- have completed high school or have earned the GED.
- be in good standing with any federal educational loans.
- Non-credit course work does not qualify for federal financial aid.

## How to Apply for Financial Aid

A student may apply for financial assistance at Naugatuck Valley Community College by completing the Free Application for Federal Student Aid (FAFSA) form for the year in which the student intends to attend the College. This form will establish the "financial need" of the student. Financial aid is granted on a one (1) year basis; students must apply for assistance each year.

The student and a parent must apply for a FSA ID at [FSAID.ed.gov](https://fsaid.ed.gov). The FSA ID is required for use in signing the online application.

The student should complete the FAFSA on the web at [FSAID.ed.gov](https://fsaid.ed.gov). The Federal School Code for Naugatuck Valley Community College is 006982.

## Using Your Tax Return:

If you (or your parents) need to file a tax return with the Internal Revenue Service (IRS), we recommend that you complete your tax returns before filling out the FAFSA. If you have not completed your tax return yet, you can submit your FAFSA using estimated tax information, and then correct that information after you file your tax return. The easiest way to complete or correct your FAFSA with accurate tax information is by using the IRS Data Retrieval Tool through [www.fafsa.gov](https://www.fafsa.gov). In a few simple steps, you may be able to view your tax return and transfer it directly into your FAFSA.

If a student is selected for verification, processing time can take up to four (4) weeks. Students are encouraged to provide all required verification documents in a timely manner to the Naugatuck Valley Community College Financial Aid Office. During the verification process if a student wishes to register for classes, payment arrangements must be made with the Bursar's Office to avoid cancellation of classes.

## Types of Financial Aid

Once eligibility has been established, the student should visit [www.nv.edu](https://www.nv.edu) and login on MyCommnet Banner Self Service and click on the financial aid tab. This will explain the "Financial Aid Package" comprised of all the funds the student will receive. The student may receive aid from one or many programs depending upon the student's need and the availability of funds. The available programs include:

### Grants

These are gift aid programs. Funds are not required to be repaid.

- **Federal Pell Grant** This grant is the foundation of all federal aid programs. It is money provided to help undergraduate students pay for their education beyond high school. The amount of money the student can receive through this program will depend upon the program funding for the year, the information the student provides on the application, and whether the student is enrolled full-time or part-time. The student must be enrolled for at least three credit hours in a program of six months in length or longer. The student is eligible for this grant until a first bachelor's degree is earned.
- **Federal Supplemental Educational Opportunity Grant (SEOG)** This is a federal grant for undergraduate students who have completed high school and have a financial need.
- **Naugatuck Valley Grant** This program provides grants in varying amounts to students demonstrating financial need. Eligibility requires that a student be a Connecticut resident.
- **Loans** These funds must be repaid and **approval of these loans is not automatic.**

- **Federal Direct Stafford Loan Program** This program provides low interest loans to students seeking assistance in financing their education. The loans are administered through the Federal government. The interest rate is variable and may change every July 1, but many never exceed 8.25%. These loans are available to students who are enrolled at least half-time and maintain satisfactory academic progress. The loan must be used for reasonable educational expenses.
- There are two types of loans. A **subsidized Stafford Loan** is awarded on the basis of financial need. You will not be charged interest before you go into repayment or during authorized deferment periods. An **unsubsidized Stafford Loan** is not awarded on the basis of need. You will be charged interest from the time the loan is disbursed until it is paid in full.
- The maximum grace period before payment becomes due is six months after graduation or withdrawal from school.
- **Federal Direct Plus Loans** Federal Plus Loans are for parents to borrow. This type of loan enables parents with a good credit history to borrow to pay for the education expenses for each of their dependent undergraduate children who are enrolled at least half-time and maintain good academic satisfactory progress.
- **Federal Work-Study Program** The Federal College Work-Study Program (FWS) is part of the "Financial Aid Package" which provides jobs for undergraduate students who need help earning funds for some of their educational expenses. Awards vary according to financial need and the availability of funds. Generally, a student will work 7 to 15 hours weekly at the prevailing rate. Students must be enrolled at least part-time (six credits) and be making satisfactory academic progress.

## Academic Standards for Financial Aid Recipients

### Satisfactory Academic Progress Policy for Student Financial Aid Recipients

A student receiving Federal Title IV financial aid or other financial aid directly administered or certified by the college must maintain satisfactory academic progress towards the completion of a certificate or degree program of study. Satisfactory academic progress for financial aid recipients is measured by both quantitative and qualitative standards and is an assessment of a student's cumulative academic record at the college. A student must complete successfully two-thirds (66.66%) of the credits (earned credits/attempted credits) s/he attempts. All attempted credits resulting in either an academic grade or administrative transcript notation will be included in the quantitative calculation. Incomplete courses, course withdrawals, course repetitions, and noncredit remedial courses (with appropriate credit equivalency evaluation) will be included in this assessment. Transfer credits will be counted as attempted and earned credits in the calculation for determining satisfactory academic progress. A student must also maintain a cumulative minimum grade point average as noted below to be making satisfactory academic progress and be eligible to receive financial aid.

Earned Credits Minimum GPA

≤ 15.99 1.50

≥ 16.00 2.00

### Financial Aid Warning Period

A student's cumulative academic history will be evaluated prior to each term's financial aid disbursement. This policy will be used to evaluate full-time and part-time students.

1. **Repeated/Audit Coursework:** Financial aid recipients are limited to one repetition of a previously passed course in their program of study. A second repetition of a previously passed course will not be eligible for financial aid payment. Audit courses are not financial aid eligible.
2. **Communication:** Students will receive notification prior to the start of a period of enrollment via postal mail or e-mail that will describe any changes to the status of their academic status. Updates to academic progress standing are also available to student at <http://my.commmnet.edu>.
3. **Warning Period:** Any student who fails to meet the minimum satisfactory academic progress standard will be placed on Financial Aid Warning once. The warning period will be the student's next semester of enrollment at the college. The college will communicate the Warning status to the student and inform the student that s/he must meet the academic progress standard by the end of the Warning Period in order to maintain eligibility to participate in the financial aid program at the college.

## **Termination**

Any student who fails to meet the minimum satisfactory academic progress standard at the end of the warning period will be dismissed from the financial aid program at the college. The College will communicate the termination status to the student and inform the student of the reinstatement and appeal process available to the student.

## **Maximum Credit Hours**

A student may receive student financial aid for any attempted credits in his/her program of study that do not exceed 150% of the published length of the student's educational program at the College. For example, a student enrolled in a 60-credit degree program may receive financial aid for a maximum of 90 attempted credit hours. Similarly, a student enrolled in a 30-credit certificate program may receive financial aid for a maximum of 45 attempted credit hours. Any attempted credits at the College must be included in the calculation. This 150% maximum credit hours rule is applicable to students who change majors or who pursue a double major.

## **Reinstatement**

A student's financial aid eligibility will be automatically reinstated at such time as the student meets the minimum satisfactory academic requirements. Reinstatement to the financial aid program may also occur upon successful appeal by the student.

## **Appeal Process**

Students may appeal financial aid decisions. The first appeal should be made to the Director of Financial Aid. Appeal forms are available online and at the Financial Aid Office. Any appeal, due to extenuating circumstances (such as injury, illness, death of a relative, or if a student has experienced undue hardship as a result of special circumstances) must be documented with supporting evidence from a third-party source. Students will be notified of the director's decision within 14 days. If the student is dissatisfied with the decision on that level, an appeal can be made to the Dean of Student Services.

## **Academic Engagement Policy**

Students are required to participate in class in order to receive financial aid. Professors report all students who have not participated in class prior to the census date. The Financial Aid office is informed via email and financial aid is adjusted accordingly (and possibly cancelled). This will most likely result in a bill with the college. Proof of participation (for all classes) can be submitted to the Financial Aid office. If it is determined that the student is engaging in classes, financial aid will be reinstated and the hold will be removed. For the Board of Regents full Academic Engagement Policy see here.

## **Withdrawal From Classes**

Students who plan to withdraw from any classes must report to the Financial Aid Office prior to the actual course withdrawal for counseling and/or adjustment to their award. Students who do not follow this procedure may be placed on warning or terminated from financial aid depending upon completion of the rest of their courses and the grades earned for those courses.

## **Financial Aid - Summer Session**

There are Pell Grants available for those who qualify for the summer session. Satisfactory academic progress requirements are identical to semester requirements. For further information, please call the Financial Aid Office.

## **Federal Tax Credits for Educational Expenses**

The Taxpayer Relief Act of 1997 created two nonrefundable education tax credits entitled the **Hope Scholarship Credit** and the **Lifetime Learning Credit**. *See details on Tuition and Fees.*

## **Rights and Responsibilities of Students Receiving Financial Aid**

### **You have the right to ask the College:**

- The names of its accrediting organizations.
- About its programs and faculty; its instructional, laboratory, and other physical facilities.
- What is the cost of attending; what are the policies regarding refunds to students who withdraw.
- What financial assistance is available, including information on all federal, state, local, private, and institutional financial aid programs.
- What the procedures and deadlines are for submitting applications for each available financial aid program.
- What criteria is used to select financial aid recipients.
- How financial need is determined. This process includes how costs for tuition and fees, room and board, travel, books and supplies, personal and miscellaneous expenses, etc. are considered in a student's budget. It also includes what resources (such as parental contribution, other financial aid, assets, etc.) are considered in the calculation of financial need.
- How much financial need, as determined by the institution, has been met.
- How and when will financial aid be distributed.
- An explanation of each type and amount of assistance in the financial aid package.
- What the interest rate is for a student loan, the total amount that must be repaid, the length of time for repayment, the date to begin repayment, and any cancellation and deferment provisions that apply.
- Those involved in the College's Work Study Program have the right to know the type of jobs available, hours of work, duties, rate of pay, and payment schedule.
- For a reconsideration of the aid package if you believe a mistake has been made or if your enrollment or financial circumstances have changed.
- For an explanation regarding the criteria used to determine satisfactory progress.
- What special facilities and services are available to students with disabilities.

### **It is your responsibility to:**

- Review and consider all information about the College's programs before enrollment.
- Register for courses that will fulfill the degree requirements.
- Pay special attention to your application for student financial aid, complete it accurately, and submit it on time to the proper office. Errors can prevent or delay the receipt of financial aid.
- Provide all additional documentation, verification, corrections and/or new information requested by either the Financial Aid Office or the agency to which you submitted your application.
- Read and understand all forms that you are asked to sign, and retain a file copy.
- Accept responsibility for the promissory note and all other agreements that you sign. If you have a loan, notify the Department of Education of changes in your name, address or school status.
- Perform in a satisfactory manner the work that is agreed upon in accepting a college work-study job.
- Know and comply with the deadlines for application or reapplication for aid.
- Know and comply with the College's refund procedures.

## TUITION AND FEES

### Payment of Tuition and Fees

Payments of tuition, the college services fee, the student activities fee and applicable mandatory usage fees are expected in accordance with deadlines published in the credit and non-credit tabloids each semester. Special fees and charges must be paid as designated by the College.

All holders of temporary visas (e.g. F, B, J, and H) will be charged the out-of-state tuition rate, unless and until they present evidence of change to permanent resident which may be demonstrated by presentation of the "Notification of Action" form from U.S. Citizenship and Immigration Services verifying the student's change of status, or the actual "green card" as well as evidence that establishes Connecticut residency in accordance with state law.

### Failure to Pay

The College reserves the right to cancel student registrations for non-payment, but students are responsible for the applicable charges should they fail to formally drop the class(es) from their schedule or withdraw from the College. The College also reserves the right to freeze the records of any students with incomplete payment plans or other obligations to the College.

Students presenting bad checks must replace them (plus \$25.00) with cash, money order or bank check within seven (7) days (one week) of the College's receipt of such notification.

The applicable charges are subject to change but are expected to be as shown below and on the following pages. Charges for non-credit courses are variable by course.

### Installment Payment Plan

An installment payment plan is available to students enrolling for 3 credits or more in the fall and/or spring semesters and select noncredit programs. This plan allows students to defer the payment of tuition beyond the normal due dates, for a fee of \$25.00 each semester. Specific information is available in the Bursar's Office, Kinney Hall.

### Special Fees

These include:

- A program enrollment fee charged to all students applying for matriculation into an academic program except if an application fee has been paid \$20.00
- Late payment fee charged for any tuition and fee payment received after the established date \$15.00
- Replacement of a lost library/ID card fee is charged to defray the cost of replacing a student's ID card \$10.00
- Returned check fee charged for any checks which are not honored by a banking institution \$25.00
- College Level Examination Program (CLEP) \$15.00
- *(In addition there is a \$80 fee payable to The College Board) Proctoring fee \$15.00 for CCC students; \$35 for non-CCC students*
- Academic evaluation fee charged to students taking college-produced examinations for the awarding of course credit \$15.00
- Portfolio assessment fee \$100.00

- |  |         |
|--|---------|
| • TV course fees charged for the support of promotional and other expenses | \$0     |
| • Proctoring fee   | \$35.00 |

*Students enrolled in tuition fund courses and/or educational extension fund credit courses carrying 12 semester hours or more will be classified as full-time for general fee purposes.*

## Waiver of Fees

Fees may be waived under the following conditions:

- Application fee waiver for students with severe financial need.
- Fee waivers for special programs for students rendered incapable of paying the fees or benefiting from the services.
- Fee waivers for students taking TV courses only and who will not use the College facilities.

## Waivers of Tuition

Tuition waivers apply to general fund courses only unless otherwise noted.

## Dependent Children of Certain Police/Firefighters

Tuition is waived for any dependent child of a police officer, as defined in section 7-294a of the CT General Statutes, or a supernumerary or auxiliary police officer, or firefighter, as defined in section 7-323j, killed in the line of duty.

## Persons 62 Years or Older

The application fee and all general fees are waived for any Connecticut resident 62 years of age or older who has been accepted for admission. Tuition is waived for Connecticut residents 62 years of age or over on a space available basis. Special fees other than the application fee must still be paid. Registration under this waiver begins on the first day of the semester/session and is restricted to classes with available seats.

## Veteran's and National Guard Benefits

The Veteran's Administration provides educational benefits under the following programs:

- Chapter 30: The Montgomery G.I. Bill
- Chapter 31: Vocational Rehabilitation
- Chapter 32: Post Vietnam Veterans Educational Assistance Program (VEAP)
- Chapter 33: Post 9/11 G.I. Bill
- Chapter 35: Survivors' and Dependents' Education
- Chapter 1606: Selected Reserve Program
- Chapter 1607: Reserve Educational Assistance Program (REAP)

Students are advised to make their initial application for VA benefits well in advance of their first semester. Veterans may use their GI Bill benefits during spring, summer and fall semesters.

Eligible students may use VA benefits to pursue a degree or certificate program approved by the CT State Approving Agency and must be enrolled in that program. Courses that the student registers for must fulfill degree requirements. Once a student has registered and paid the appropriate charges for a given semester, the College will certify the student's enrollment to the VA, which will then pay the appropriate benefits to the student.

Continued certification by the College is contingent on the student's maintaining satisfactory academic progress toward the completion of program requirements.

U.S. Department of Veterans Affairs (VA) regulations require that all students receiving VA educational benefits meet the College's satisfactory academic progress (SAP) standard and the College's academic standing policy as stated in the college catalog. Students failing to make SAP will have their VA educational benefits discontinued in accordance with the institution's policy. For information on Satisfactory Academic Progress (SAP) click here. Students who are suspended for failing to meet the college's academic standing policy will be reported to the VA. Students may appeal their academic suspension in accordance with the institution's Academic Probation Policy. Should the appeal be successful, the student's enrollment will be reported retroactively to VA for the enrollment period to which the appeal applies.

Further information on VA benefits available in the Veteran's Affairs Office located within the Financial Aid Office in K512.

## **Connecticut Veteran's Tuition Waiver**

Under Section 27-103 of the CT General Statutes, the Board of Trustees for the State of Connecticut Community Colleges shall waive the tuition at any community college for eligible CT veterans with military service during time of war. For the purpose of granting a tuition waiver, a veteran is anyone who has served at least 90 days of active duty and has been released from active duty honorably or under honorable conditions.

To use the waiver, a veteran should complete the application in the Veteran's Affairs Office in K512, present a CT driver's license and Member 4 copy of the DD-214. Additional information will be provided at that time. The CT Veteran's Tuition Waiver can not be used for summer classes, winter sessions, or late start programs and does not cover fees or book charges.

## **National Guard Tuition Waiver**

Members of the Connecticut Army and Air National Guard who are in good standing are eligible for a tuition waiver. The waiver can be used during spring and fall semesters only and does not cover fees or book charges.

Guard members must apply for a Certificate of Eligibility from their unit. Members are encouraged to apply early to their unit for the semester they wish to attend. The Certificate of Eligibility is good for one semester only. All guard members must be prepared to make payment arrangements at time of registration if no Certificate of Eligibility is on file with the Veteran's Affairs Office.

## **VA Pending Payment Compliance**

SEC. 103. DISAPPROVAL FOR PURPOSES OF EDUCATIONAL ASSISTANCE PROGRAMS OF DEPARTMENT OF VETERANS AFFAIRS OF CERTAIN COURSES OF EDUCATION THAT DO NOT PERMIT INDIVIDUALS TO ATTEND OR PARTICIPATE IN COURSES PENDING PAYMENT.

(a) IN GENERAL.—Section 3679 of title 38, United States Code, is amended by adding at the end the following new subsection:

1. "(e) Notwithstanding any other provision of this chapter, beginning on August 1, 2019, a State approving agency, or the Secretary when acting in the role of the State approving agency, shall disapprove a course of education provided by an educational institution that has in effect a policy that is inconsistent with any of the following:
  1. "A policy that permits any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33 of this title and ending on the earlier of the following dates:
    1. "The date on which the Secretary provides payment for such course of education to such institution.
    2. "The date that is 90 days after the date on which the educational institution certifies for tuition and fees following receipt from the student such certificate of eligibility.
  2. "A policy that ensures that the educational institution will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement of a payment to be provided by the Secretary under chapter 31 or 33 of this title.
2. "For purposes of this subsection, a covered individual is any individual who is entitled to educational assistance under chapter 31 or 33 of this title.
3. "The Secretary may waive such requirements of paragraph (1) as the Secretary considers appropriate.

4. "It shall not be inconsistent with a policy described in paragraph (1) for an educational institution to require a covered individual to take the following additional actions:
  1. "Submit a certificate of eligibility for entitlement to educational assistance not later than the first day of a course of education for which the individual has indicated the individual wishes to use the individual's entitlement to educational assistance.
  2. "Submit a written request to use such entitlement.
  3. "Provide additional information necessary to the proper certification of enrollment by the educational institution."

(b) PROMPT PAYMENTS.-

1. IN GENERAL.-The Secretary of Veterans Affairs shall take such actions as may be necessary to ensure that the Secretary makes a payment to an educational institution on behalf of an individual, who is entitled to educational assistance under chapter 31 or 33 of title 38, United States Code, and who is using such assistance to pursue a program of education at the educational institution, not later than 60 days after the date on which the educational institution certifies to the Secretary the applicable tuition and fees for the individual.
2. SEMIANNUAL REPORTS.-Not later than May 1 and October 1 of each year, the Secretary shall submit to the Committee on Veterans' Affairs of the Senate and the Committee on Veterans' Affairs of the House of Representatives a semiannual report summarizing any cases in which the Secretary failed to make a payment described in paragraph (1) within the period set forth in such paragraph and an explanation for each delayed disbursement of payment.

(c) RULE OF CONSTRUCTION.-In a case in which an individual is unable to meet a financial obligation to an educational institution due to the delayed disbursement of a payment to be provided by the Secretary under chapter 31 or 33 of such title and the amount of such disbursement is less than anticipated, nothing in section 3679(e) of such title, as added by subsection (a), shall be construed to prohibit an educational institution from requiring additional payment or imposing a fee for the amount that is the difference between the amount of the financial obligation and the amount of the disbursement.

## Veterans OASIS

The Veterans OASIS is located in S411 and is open Monday through Friday, 7 am - 10 pm; Saturdays, 7 am - 6 pm; and Sundays, 11 am - 6 pm. The Oasis is open to all veterans (all guests must be accompanied by an NVCC veteran student). The Oasis provides a quiet area for networking, homework, and veteran related activities. There are computers and wireless internet available also. For further information, please contact Debbie DiCicco in K512.

## Dependent Child or Surviving Spouse of Specified Terrorist Victim

Tuition for General Fund courses are waived for any Connecticut resident who is a dependent child or surviving spouse of a specified terrorist victim who was a resident of Connecticut. A list of said victims is maintained by the State Department of Higher Education.

## Dependent Children of Veterans

Dependent children of veterans missing in action or former prisoners of war will have a complete waiver of tuition.

## Federal Tax Credits for Educational Expenses

The Taxpayer Relief Act of 1997 created two non-refundable education tax credits entitled the **Hope Scholarship Credit** and the **Lifetime Learning Credit**. A nonrefundable tax credit allows a taxpayer to subtract from the total amount of taxes owed, the value of the credit that he/she is eligible for. "Nonrefundable" means that you must owe taxes to get the value of the credit (i.e. if you owe \$500 in taxes and are eligible for a \$1,000 tax credit, you can subtract \$500 from the taxes owed).

**Hope Scholarship Credit** is a non-refundable tax credit that can be claimed for 100 percent of the first \$1,000 of out of pocket expenses for each student's qualified tuition and related expenses, plus 50 percent of the next \$1,000. For example, the maximum is a \$1,500 tax credit for each student (\$2,000 in out-of-pocket expenses).

Credits can also be claimed for other students in the family (a dependent or spouse) who qualify (i.e., a parent goes to school and claims the credit for himself/herself and a child who is a dependent that is also attending a school). The credit is based on a per student basis. As long as the student is eligible, there is no limit on the dollar amount a particular family can be eligible.

**Lifetime Learning Credit** is a non-refundable tax credit that can be claimed for 20 percent of the first \$5,000 of out-of-pocket expenses for a family's qualified tuition and related expenses. For example, the maximum is a \$1,000 tax credit for the entire family. In the year 2003, the amount increases to 20 percent of the first \$10,000 (\$2,000).

Credits can be claimed for more than one person in the family but not to exceed \$1,000 for the entire family (\$2,000 in 2003). This is different than the Hope Scholarship Credit; the amount is based on a per family basis rather than a per student basis. There is a dollar limit that a family can be eligible.

You must meet specific income and enrollment guidelines to be eligible. Consult the Taxpayer Relief Act of 1997 or the Internal Revenue Service for details.

## Refund and Withdrawal Policy

### Refunds

#### Traditional Fall/Spring Semester Courses:

- Students who drop courses prior to the term or up until the 7th day of the term having elapsed (i.e. 10% of the term) will be entitled to a 100% refund of tuition and fees.
- Students who drop subsequently to the 7th day of the term but prior to the 21st day of the term having elapsed will be entitled to a 100% refund of tuition and fees less a "late drop" fee assessed at \$50 per dropped course.
- Students who withdraw subsequently to the 21st day of the term having elapsed will be charged 100% of all tuition and fees.

#### Courses Offered in Abbreviated Terms (e.g. summer, winter, late start courses, etc.):

- Students who drop courses prior to the abbreviated term and up until 10% of the abbreviated term having elapsed will be entitled to a 100% refund of tuition and fees.
- Students who drop subsequently to 10% of the abbreviated term having elapsed but prior to 20% of the abbreviated term having elapsed will be entitled to a 100% refund of tuition and fees less a "late drop" fee assessed at \$50 per dropped course.
- Students who withdraw subsequently to 20% of the abbreviated term having elapsed will be charged 100% of all tuition and fees. Dates representing the 10% - 20% points of the respective abbreviated terms will vary according to each session/part of term in which the student is registered. Please see the Registrar or Bursar's office for the exact dates on which the "late drop" fee will be assessed.

### Withdrawals

#### Traditional Fall/Spring Semester Courses:

No course withdrawals will be accepted once 80% of the semester has passed. For a typical 15- week term, 80% of the term is considered the last day of the twelfth week of the term. A student may appeal the course withdrawal deadline due to mitigating circumstances.

#### Courses Offered in Abbreviated Terms (e.g. summer, winter, late start courses, etc.):

No course withdrawals will be accepted once 80% of the abbreviated term has passed. For abbreviated terms, 80% is considered the last day of the business week of that period. A student may appeal the course withdrawal deadline due to mitigating circumstances.

*Note: financial aid students who withdraw from summer courses subsequently to 20% of the abbreviated term having elapsed but prior to the summer financial aid census date may be charged 100% of tuition and fees for those courses with no corresponding/offsetting summer financial aid disbursement.*

A registered student wishing to withdraw must submit a withdrawal request, in writing, to the Office of the Registrar. The effective date of withdrawal is the date the signed withdrawal is received.

Withdrawals can be made:

- in person in Waterbury: Office of the Registrar, K516
- in person in Danbury: Administrative Office, 2nd Floor
- by mail: NVCC Office of the Registrar K516
- 750 Chase Parkway, Waterbury, CT 06708
- Fax: (203) 575-8085
- On-line: <http://mycommnet.edu>

Requests must be received by the deadline within the withdrawal period (i.e. requests received by midnight prior to the deadline will be honored).

## **Adding & Dropping Courses**

### **Full-Term Courses (15 weeks)**

Students may drop courses through the end of business day of the 21st calendar day of the term. Courses dropped during this period would not appear on a transcript. Courses can only be added up to calendar day seven of a full, 15-week term.

### **Abbreviated Term Courses**

Students may drop courses through the first 20% of an abbreviated term length. Courses dropped during this period would not appear on a transcript. Courses can only be added up to the first 10% of the abbreviated term length.

## **Non-Participation (Academic Engagement)**

The community colleges are required to verify the academic engagement of each student in each registered course by demonstrating "academic attendance" or an "academically-related activity" for Title IV purposes. This must be completed prior to the predetermined census date of each traditional semester, as well as during periods of enrollment shorter than the traditional 15-week semester (i.e., summer terms and other abbreviated terms). Students who are determined to have not academically engaged in a period of enrollment leading up to census shall be assigned a registration status of "Never Participated (NP)" for each affected course. Students with the NP designation will be dropped from the course(s) they have not participated in and will be assessed a Late Drop Fee of \$50 for each affected course as outlined in BOR policy 3.7.

### **Refund Appeal Process**

The Refund Appeals Committee from Connecticut State Community College (a subdivision of the Connecticut State Colleges & Universities System Office) is authorized to modify the tuition refund policy for specific students on a case-by-case basis under the following circumstances: documented medical or personal emergency; erroneous advisement by the College; documented military deployment/transfer. Exceptions which are not normally considered include change in job, normal illness, and poor decision or change in mind by a student. Other extenuating or extraordinary circumstances may also be considered upon written request submitted to the Refund Appeals Committee.

- All appeals must include the Refund Appeal Form (available online as well as each college Registrar's Office and Bursar/Business/Finance Office). The form includes instructions for submitting an appeal, and any relevant information regarding notification to the student of the outcome.
- Each appeal must contain supporting documentation to substantiate the appeal. This may include:
  - A medical professional's note
  - Hospital discharge documentation
  - Obituary or death certificate
  - Military deployment
  - Other documentation on a case-by-case basis
- Appeals are expected to be submitted during the term for which the appeal is being made.

### **Refund Policy for Students Participating in Federal Title IV Student Aid Programs**

Students who receive federal student aid and withdraw from all classes are subject to the Return of Federal Title IV Funds calculation. This calculation allows you to keep only that portion of federal aid which you earned, based upon the number of calendar days you were in attendance, compared to the number of calendar days in the entire semester.

(Example: A student received \$1200 in Federal Grants, but withdrew after 40% of the semester. He is said to have "earned" 40% of the grants or \$480.00. The remainder of the Grants, or \$720.00 is said to be "unearned.")

Any balance remaining after this calculation will be your responsibility to pay back to NVCC. Should you fail to complete payment, you will be referred to the U.S. Department of Education for collection and will no longer be eligible for Title IV funds at any institution.

### **Non-credit Refund Information**

Withdrawal requests for refund must be received three business days (72 hours) prior to the beginning of class unless stated otherwise in the course description. Refunds are not granted after this deadline. Telephone: 203-575-8029 Fax: 203-575-8243 Email: nc@nv.edu Mail: Non-Credit Refunds, Room F323, Naugatuck Valley Community College, 750 Chase Pkwy., Waterbury, CT 06708

If there is a course cancellation due to insufficient enrollment, students will be notified by phone, mail and/or email. Please make sure when registering that your contact information is up-to-date. We would like to offer you the opportunity to transfer to another section, if available, or to another class of your choosing. If we have not heard from you within 7 business days, a refund will automatically be processed. Please allow 2-4 weeks for processing. The person registered in our records system is the person who will receive the refund. The College reserves the right to cancel courses due to insufficient enrollment or other reasonable causes. Full refund is made if the College cancels the course. When registering for a coupon course, cancellation of one class voids the discounted price.

Motorcycle course fees are Non-refundable. Students may transfer one-time with a fee of \$20.00 and requests must be made FIVE business days prior to the start date of original class. Requests after this time will not be granted.

# Tuition and Fee Schedule

Approved by the Board of Regents Effective Fall 2022

Subject to change without notice. Visit [nv.edu/pay](http://nv.edu/pay) for current tuition and fee schedule.

## In-State Resident Students

Semester Hours	Tuition	College Services Fee	Student Activity Fee	Total
1	\$174.00	\$92.00	\$15.00	\$281.00
2	\$348.00	\$101.00	\$15.00	\$464.00
3	\$522.00	\$107.00	\$15.00	\$644.00
4	\$696.00	\$112.00	\$15.00	\$823.00
5	\$870.00	\$133.00	\$15.00	\$1,018.00
6	\$1,044.00	\$151.00	\$15.00	\$1,210.00
7	\$1,218.00	\$170.00	\$15.00	\$1,403.00
8	\$1,392.00	\$186.00	\$15.00	\$1,593.00
9	\$1,566.00	\$207.00	\$15.00	\$1,788.00
10	\$1,740.00	\$222.00	\$15.00	\$1,977.00
11	\$1,914.00	\$241.00	\$15.00	\$2,170.00
12.0 or more *	\$2,088.00	\$262.00	\$20.00	\$2,370.00
Annual Full-time	\$4,176.00	\$524.00	\$40.00	\$4,740.00

## Out-of-State Non-Resident Students

Semester Hours	Tuition	College Services Fee	Student Activity Fee	Total
1	\$523.00	\$277.00	\$15.00	\$815.00
2	\$1,046.00	\$299.00	\$15.00	\$1,360.00
3	\$1,569.00	\$318.00	\$15.00	\$1,902.00
4	\$2,092.00	\$334.00	\$15.00	\$2,441.00
5	\$2,615.00	\$394.00	\$15.00	\$3,024.00
6	\$3,138.00	\$446.00	\$15.00	\$3,599.00
7	\$3,661.00	\$503.00	\$15.00	\$4,179.00
8	\$4,184.00	\$550.00	\$15.00	\$4,749.00
9	\$4,707.00	\$610.00	\$15.00	\$5,332.00
10	\$5,230.00	\$657.00	\$15.00	\$5,902.00
11	\$5,753.00	\$714.00	\$15.00	\$6,482.00
12.0 or more **	\$6,276.00	\$774.00	\$20.00	\$7,070.00
Annual Full-time	\$12,552.00	\$1,548.00	\$40.00	\$14,140.00

## New England Regional Program (NEBHE)

Semester Hours	Tuition	College Services Fee	Student Activity Fee	Total
1	\$261.00	\$139.00	\$15.00	\$415.00
2	\$522.00	\$151.00	\$15.00	\$688.00
3	\$783.00	\$160.00	\$15.00	\$958.00
4	\$1,044.00	\$169.00	\$15.00	\$1,228.00
5	\$1,305.00	\$199.00	\$15.00	\$1,519.00
6	\$1,566.00	\$227.00	\$15.00	\$1,808.00
7	\$1,827.00	\$255.00	\$15.00	\$2,097.00
8	\$2,088.00	\$280.00	\$15.00	\$2,383.00
9	\$2,349.00	\$310.00	\$15.00	\$2,674.00
10	\$2,610.00	\$334.00	\$15.00	\$2,959.00
11	\$2,871.00	\$363.00	\$15.00	\$3,249.00
12.0 or more *	\$3,132.00	\$392.00	\$20.00	\$3,544.00
Annual Full-time	\$6,264.00	\$784.00	\$40.00	\$7,088.00

## Educational Extension Program Credit Courses

Semester Hours	Educational Extension Fee	College Services Fee	Student Activity Fee	Total
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1	\$189.00	\$92.00	\$15.00	\$296.00
2	\$378.00	\$101.00	\$15.00	\$494.00
3	\$567.00	\$107.00	\$15.00	\$689.00
4	\$756.00	\$112.00	\$15.00	\$883.00
5	\$945.00	\$133.00	\$15.00	\$1,093.00
6	\$1,134.00	\$151.00	\$15.00	\$1,300.00
7	\$1,323.00	\$170.00	\$15.00	\$1,508.00
8	\$1,512.00	\$186.00	\$15.00	\$1,713.00
9	\$1,701.00	\$207.00	\$15.00	\$1,923.00
10	\$1,890.00	\$222.00	\$15.00	\$2,127.00
11	\$2,079.00	\$241.00	\$15.00	\$2,335.00
12	\$2,268.00	\$262.00	\$20.00	\$2,550.00
13	\$2,457.00	\$262.00	\$20.00	\$2,739.00
14	\$2,646.00	\$262.00	\$20.00	\$2,928.00
15	\$2,835.00	\$262.00	\$20.00	\$3,117.00

\*\*Excess Credits Tuition Charge: An additional flat tuition charge of \$100 per semester shall apply when total registered credits exceed 17 for the semester.

**Mandatory Usage Fees, rates effective Fall 2020:**

Clinical Program Fee-Level 1 *	\$487.00	*Per semester, not assessed Material or Supplemental Clinical Program Fee
Clinical Program Fee-Level 2*	\$359.00	
Advanced Manufacturing Lab Fee	\$120.00	
Supplemental Course Fee Level 1 **	\$102.50	**Per course; level determined by additional contact hours
Supplemental Course Fee Level 2 **	\$205.00	**Per course; level determined by additional contact hours
Material Fee ***	\$51.00	***Per course, where applicable

**All Tuition and Fees are subject to change**

## ACADEMIC STANDARDS AND SERVICES

### Unit of Credit

Federal regulation define a credit hour as an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutional established equivalence that reasonably approximates not less than: (1) one hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately 15 weeks for one semester or trimester hour of credit, or 10-12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or (2) at least an equivalent amount of work as described above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit.

### Academic Honesty and Plagiarism

At NVCC we expect the highest standards of academic honesty. Academic dishonesty is prohibited in accordance with the Board of Regents (BOR) Proscribed Conduct Policy in Section 5.2.1 of the BOR Policy Manual. This policy prohibits cheating on examinations, unauthorized collaboration on assignments, unauthorized access to examinations or course materials, plagiarism, and other proscribed activities. Plagiarism is defined as the use of another's idea(s) or phrase(s) and representing that/those idea(s) as your own, either intentionally or unintentionally.

### Academic Load

PART-TIME Students registered for eleven (11) or fewer credit hours in a semester are considered to be part-time students. Students have the responsibility to take the correct courses to meet graduation requirements in their academic programs, but students should seek the advice of their faculty advisor, counselor, or program coordinator. Students desiring to deviate from the recommended courses sequences must review such plans with their faculty advisor, counselor, or program coordinator. Financial aid students must contact the Financial Aid office to discuss deviations from their program of study.

FULL-TIME Students registered for twelve (12) or more credit hours in a semester are considered to be full-time students. Students have the responsibility to take the correct courses to meet graduation requirements in their academic programs, but students should seek the advice of their faculty advisor, counselor, or program coordinator. Students desiring to deviate from the recommended course sequences must review such plans with their faculty advisor, counselor, or program coordinator.

The average full-time student carries five courses (15-16 credits), depending upon program of study and/or academic preparation. Students who wish to carry more than sixteen credits, which is the maximum load allowed, must apply to the Dean of Academic Affairs for special permission prior to registration. The initial program of study for all students is developed at the time of entry to the College under the direction of the Director of the Center for Academic Planning and Student Success (CAPSS).

### Course Changes

During the first week of each semester, students may Add/Swap courses. Students who wish to make course or schedule changes may do so without penalty on a space-available basis through the Office of the Registrar.

No student will be allowed to enter a course after the first week of classes without permission of the Division Director.

### Class Attendance

Classroom attendance is an integral part of the college experience. The faculty of the College believe that regular class attendance is necessary for a student to derive the maximum benefit from the learning experience and the overall value of the classroom instruction. For absences due to extenuating circumstances, it is the responsibility of the student to contact the instructor. Specific attendance and grading policies will be included in the syllabus for each class.

There are some degree and certificate programs which have special attendance policies that must be satisfied due to licensing requirements. Students should refer to the program handbooks for these specific requirements.

## Make-up Work

Academic work missed during class absences should be discussed with the individual instructor immediately upon the student's return to class. It is the student's responsibility to seek out the instructor in this case during office hours or at a mutually convenient time. Specific make-up policies are at the discretion of the instructor.

## Grading System

### Credit Courses

For the purpose of computing numerical credit point averages, grades are evaluated as follows for each semester hour of credit:

Letter Grade	Grade Scale	GPA Equivalency	Description
A	93-100	4.0	Distinguished achievement in all phases of the course or assignment
A-	90-92	3.7	
B+	87-89	3.3	
B	83-86	3.0	High level of achievement in some phases of the course or assignment
B-	80-82	2.7	
C+	77-79	2.3	
C	73-76	2.0	Basic understanding of the subject of the course or assignment
C-	70-72	1.7	
D+	67-69	1.3	
D	63-66	1.0	Minimal performance in the course or on the assignment
D-	60-62	0.7	
F	0-59	0.0	Failure

Final course grades are computed to a whole number. A grade at or above .50 truncated will be rounded up to the next whole number; any grade at or below .49 truncated will be rounded down to the whole number.

#### Examples:

Final Course Grade = 72.49 = 72 = C-

Final Course Grade = 72.50 = 73 = C

## Combined Academic Standing

The earned grades (GPA) will generate a status of Good Standing, Written Warning, GPA Probation, or Suspension. The record of credits completed is called Progress Evaluation, and will generate status of Good Standing or Progress Probation. The Combined Academic Standing (CAST) will include both of these evaluations.

Developmental grades do not count in the GPA. These grades will appear on the record with the # to designate their status. Note: since they do not count in the GPA, they will not contribute to academic warning, probation, or suspension.

## Administrative Transcript Notations

The College uses a number of administrative transcript notations, apart from the grading system, to describe various situations. They are as follows:

- **Incomplete (I) - No Quality Points**

An Incomplete (I) is a **temporary** grade assigned to a student who, because of special circumstances, cannot complete the requirements of a course within the regular semester. Faculty may require documentation to substantiate special

circumstances. The course work must be completed by the end of the next standard semester. The Registrar will convert the Incomplete upon receipt of a Grade Change Notification Form. If no Grade Change form is received by the end of the next standard semester, the "I" will be converted to the grade indicated by the faculty member based on a final grade calculated with zeroes for the incomplete assessments.

- **Withdrawal (W) - Student Initiated No Quality Points**

The College recognizes the potential for a student to withdraw from a course or to withdraw from college. Students have the right to formally leave a course or the College, and they also have the right to receive counseling and assistance in order to maintain enrollment in courses. Students are advised that course withdrawal may alter progress toward program completion. Students are strongly encouraged to discuss their decision with the instructor and their counselor or advisor when contemplating a decision to withdraw.

- **Withdrawal from Course(s)**

It is strongly recommended that students considering withdrawal from a course seek the advice of the instructor and a counselor or advisor. Students will be permitted to withdraw with a "W" notation no later than two weeks preceding the last Monday-Friday regularly scheduled class day. The last date for withdrawal will be published and announced.

**Withdrawals (with signature) can be made:**

- in person at the Office of the Registrar K516
- by mail: NVCC Office of the Registrar K516  
750 Chase Parkway  
Waterbury, CT 06708
- Fax: (203) 575-8085
- On-line: my.commnet.edu

Requests must be received by the deadline within the withdrawal period (i.e. requests received by midnight prior to the deadline will be honored).

"W" notations are not computed in the quality point average. If a student stops attending class, however, and fails to officially withdraw from the course, the instructor may issue a grade of "F".

"F" grades are calculated in the quality point average. To be official, all withdrawals except for those done on-line must be received and processed by the Office of the Registrar.

**Note: A withdrawal from a course(s) may jeopardize your financial aid status, car insurance coverage, health insurance coverage and other benefits.**

**Note: A student may not obtain a transcript notation of "W" if there exists substantial reason to believe that the student has engaged in academic misconduct in the course. A transcript notation of "W" will only be permitted for such students when the final resolution results in finding the student did not commit academic misconduct in the course.**

- **Audit (AU) - No Quality Points**

See "Auditing Courses".

- **Pass (P)**

An administrative transcript notation for successful completion of courses taken on a pass/fail basis. Students failing will receive a grade of "F".

- **Transfer (TR)**

An administrative transcript notation in lieu of grades for courses accepted for credit from other colleges and universities.

- **Never Participated (NP)**

A registration status used for students who have enrolled in coursework, but have failed to engage in an academically related activity by the predetermined census date. Students who receive an NP designation are no longer permitted to attend a course section after an NP has been reported. Additionally, they are not eligible to receive a final grade, and not eligible to access the learning management system for the affected course section.

The notations of "AU", "I", "M", "P", "TR", "W", are not included in the GPA.

"^" - Grades with a carrot "^" - This administrative transcript notation indicates the Fresh Start Option has been invoked. Those grades will not be calculated into the student's GPA, but any course in which the student received a grade of C- or above can be used to satisfy graduation requirements. (Prior to Fall 2004, this notation was indicated by an asterisk "\*".)

"#" - Grades with a pound sign "#" - This administrative transcript notation indicates the courses are developmental and do not carry any credit for graduation nor are calculated into the student's GPA.

### **Academic Engagement**

While none of the community colleges are considered attendance-taking institutions, they are required to verify the academic engagement of each student in each registered course by demonstrating "academic attendance" or an "academically-related activity" for Title IV purposes. This must be completed prior to the predetermined census date of each traditional semester, as well as during periods of enrollment shorter than the traditional 15-week semester (i.e. summer terms). The purpose of this practice is to identify students who have enrolled in coursework, but have not demonstrated an academically-related activity as a means to accurately report official college enrollment and meet the regulatory standard of compliance.

### **Required Activity Prior to Census**

All students are required to demonstrate academic engagement (defined below) in each of their registered courses no later than the predetermined census date of each period of enrollment. Students who make this demonstration in at least one of their registered courses shall be considered to have begun the period of enrollment. Students who do not make this demonstration in any registered courses shall be considered to have not begun the period of enrollment.

### **Students Who Begin a Period of Enrollment**

Students who begin a period of enrollment shall be counted in official census data, reflective of their actual enrollment status. Students who then cease engagement in their coursework, without officially withdrawing from the college prior to the end of the withdrawal period, shall be assigned a letter grade of "F" with a corresponding last date of academic engagement for each affected course. These students shall be considered an unofficial withdrawal from the college, and be subject to Return of Title IV regulations, if applicable. The latest date reported by faculty shall be the date of determination for unofficial withdrawal from the college.

### **Students Who Do Not Begin a Period of Enrollment**

Students who are determined to have not academically engaged in a period of enrollment leading up to census shall be assigned a registration status of "Never Participated (NP)" for each affected course. Students assigned an NP for all courses shall be removed from the period of enrollment, and shall be counted as "never attended" for enrollment reporting purposes. Courses with an NP designation are not counted toward a college's official census, and affected students are not eligible to receive financial aid for courses assigned this status.

In accordance with federal regulatory definition, academic engagement (otherwise known as "academic attendance" and "attendance at an academically-related activity") includes, but is not limited to:

- Physically attending a class where there is an opportunity for direct interaction between the instructor and students;
- Submitting an academic assignment;
- Taking an exam, an interactive tutorial, or computer-assisted instruction;
- Attending a study group that is assigned by the institution;
- Participating in an online discussion about academic matters; and
- Initiating contact with a faculty member to ask a question about the academic subject studied in the course.

This does not include activities where a student may be present, but not academically engaged, such as:

- Logging into an online class without active participation; or
- Participating in academic counseling or advising.

The institution must make a determination of "academic attendance" or an "academically related activity;" a student's certification of attendance that is not supported by institutional documentation is not acceptable.

### **Non-credit Courses**

Non-credit classes, seminars, workshops and programs all meet The Non-Credit Program Development Quality Standards. Certification coursework and programs meet or exceed industry or professional standards. Continuing Education Units (CEU's) are awarded based on

recognized international, national, or state standards. Letter or number grades are assigned by college instructors and trainers based on demonstrated knowledge attainment and/or skill achievement.

## **Grade Change Policy**

The faculty member initiates the grade change process. Grade changes cannot be submitted later than one semester following the standard semester or session in which a course was originally graded. This policy is not intended to supersede the academic grievance policy or the policy governing incompletes. A grade can be changed only if it was miscalculated, if it was erroneously reported by the faculty member, or if it was an Incomplete that needs to be changed. Students will receive notification of the grade change from the Office of the Registrar.

## **Auditing Courses**

Students who do not wish to earn course credit may be permitted to audit by notifying the Office of the Registrar of their intent at the time of registration within the first four weeks of the start of the course. Students must pay the regular tuition and college fees for each course audited.

The privileges of an auditor in a course are specifically limited to attending and listening. The auditor assumes no obligations to do any of the work of the course and is not expected to take any of the time of the instructor. The auditor does not submit any work and is not eligible to take any tests or examinations, nor to receive grades on all or any part of the course. Audited course(s) will be shown on the student's transcript with the notation "AU" in the grade column and will not carry any credit hours or quality points. An audited course does not earn any credit toward graduation.

## **Independent Study**

Faculty members in some subject areas permit qualified students to apply for Independent Study for credit and a grade when it has been proven that the student has the necessary background and qualifications to pursue this type of instruction.

The established syllabus in each independent course requires the student propose in writing the specific objectives and procedures of the independent study project. No more than one independent study may be taken in an academic year.

Before registration, a Request for Independent Study form (available from an academic division as well as the Office of the Registrar, Kinney Hall, Room K516) must be filled in with appropriate documentation and approved by the academic dean, division leader and the faculty member with whom the student will work. The proposal and the agreement become part of the student's permanent record. A student must be matriculated in a degree or certificate program to be eligible for independent study.

## **Repeating Courses**

Naugatuck Valley Community College has policies regarding repeating courses multiple times. The Board of Regents for the Connecticut State Colleges and Universities policy states: "No course may be repeated more than twice. The highest grade received will be used in calculating the student's academic average. This does not apply to those courses that are designed to be repeated for additional credit.\* College standards will be included in appropriate college publications and communications. These standards shall not be applied retroactively to the academic record of any student. A request for waiver of these standards shall be based on special circumstances and be approved by the college president, and be reported to the chancellor."

\*Courses such as music lessons, chorus, physical education, and wine and viticulture.

1. After the freeze date the Registrar provides the Dean of Academic Affairs with a list of students who are taking a course for the 3rd, the 4th, or more times.
2. Students who are taking a course for the 3rd time are sent a warning letter from the Dean of Academic Affairs.
3. Students who are taking a course for the 4th time are sent a letter from the Dean of Academic Affairs and asked to make an appointment to discuss a waiver. The Dean's office will contact a department chair, coordinator, or division leader to assist the student with tutoring, etc. so that the student will not repeat the course for an additional time.

## **Academic Appeals Policy and Forms**

All students may seek review of an assigned grade or other decision affecting their academic status. An academic appeal is an allegation by a student that an employee of the college has violated federal or state laws and regulations, college or department policies, accreditation standards, or the policies stated in the course syllabus related to an assigned grade or other academic decision. For full policy and forms, click here: [Academic Appeals](#)

## **Satisfactory Academic Progress**

Satisfactory completion of fifty percent of the credits attempted (this phrase means actual continued enrollment beyond the add/ drop period) will be the minimum standard of good standing. Students receiving Federal Title IV financial aid must successfully complete two-thirds (66.66% earned credits/attempted credits) of the attempted credits.

Students who have completed 11 or fewer credits whose Cumulative Grade Point Average (CGPA) falls below 1.5 will be given a written warning. Students who have completed between 12 and 30 credits inclusive whose CGPA falls below 1.7, and those who have completed 31 or more credits whose CGPA falls below 2.0, will be given a written notice that they are placed on academic probation.

## **Academic Probation**

Students placed on academic probation are required to seek counseling and will have a restricted credit load. They will be required to see a counselor or advisor in the CAPSS prior to registering for the next semester.

Students on academic probation who fail to attain the required CGPA as shown will be notified in writing that they are suspended for one semester.

After a period of suspension, a student may be reinstated as a probationary student. Students are required to meet with a counselor to complete an Academic Suspension Appeal as part of the reinstatement process.

A student may request a review of academic status by the Dean of Academic Affairs. Students are required to seek counseling and reduce their course load before returning to the college.

Veterans whose CGPA falls below the required 2.0 GPA will be placed on academic probation for one semester. If, at the end of the semester, the veteran has not raised his/her GPA to the required 2.0, veteran benefits will be terminated and the Veterans Administration will be notified. Once the veteran has returned to good academic standing, his/her benefits will be reinstated.

## **Academic Advising**

In addition to the Center for Academic Planning and Student Success, the College has a faculty advising system. Students who have formally enrolled in a degree program are required to have academic advising. First semester students must meet with an assigned counselor, advisor or faculty advisor prior to registering for the following semester.

## **Participation in Commencement Exercises**

Students who, in order to fulfill their degree program requirements, need to complete no more than two courses in the Summer Session following the spring semester may participate in Commencement Exercises; however, such students will not be considered as having graduated until all graduation requirements are completed. Students must have met all criteria stated in the section on *Graduation Requirements*.

The December grade point average will be considered for honors recognition for the May commencement. If the grade point average changes when the grades for spring courses are recorded and honor status is affected, the official college record will reflect the changes.

## Policy Changes

Naugatuck Valley Community College reserves the right to change requirements, courses, prerequisites, regulations, tuition, fees and other policies without prior notice. Waivers of these policies, due to extenuating circumstances, may be made by the President of the College upon written request.

## Library Services

**The Max R. Traurig Learning Resources Center Library** is a full-service academic library fulfilling the needs of Naugatuck Valley Community College students, faculty and staff, as well as residents of Waterbury and its surrounding communities. The library's policies and practices are developed using accepted industry standards current in academic and library literature. For more about our mission, goals, services, and policies, and all contact information, please visit [nv.edu/library](http://nv.edu/library). The main library is centrally located on the Waterbury campus in the L building, between Ekstrom Hall and the Student Center, with the main entrance located at L-523. Level 5 services include Check Out & Returns, Reserves, and Information, and ready access to computers, printers, copiers and scanners, a study area, and books. The library may also be accessed from Level 4, at L-410. Level 4 areas include the library's computer classroom, quiet and group study areas, DVD, VHS and CD collections, a children's library area, current and back issues of periodicals, and staff offices. More books are located on the Mezzanine level, between Levels 4 and 5.

**Library services in Danbury** are located in room D201. Students can access reserve library textbooks and get research assistance from a librarian. Materials from the Waterbury campus can be requested through the online catalog at <http://library.ct.edu/nvcc>.

**Digital resources** such as journal databases, streaming media, and e-books are available on both campuses and via myCommNet. Off campus use requires a current student, staff, or faculty myCommNet username and password.

The Level 4 group study area includes a Collaboration Station, where up to 6 people can simultaneously use laptops or notebook style computers at a Mediascape to work together on group projects, as well as two study rooms equipped with whiteboard and monitors. Please note: laptops and Chromebooks are available to check out at the front desk in L523.

**Library Services to Patrons with Disabilities** Assistive technology is available for blind and low vision users, for use in the library and classroom. Library staff are available on request to provide accommodation for patrons with limited mobility.

**Borrowing** privileges are extended to NVCC students, faculty, and staff. All other Connecticut residents may also borrow most materials from the NVCC library at no cost. To register for borrowing privileges, bring proof of identification to the Check Out desk in L523.

Students, faculty, and staff at NVCC can also use all of the libraries in the CSCU system. Searching the system is easy and can be done using the NV Search at <http://library.ct.edu/nvcc>. Materials from other libraries can be requested from any library in the CSCU system and delivered to NVCC.

## Academic Center for Excellence (ACE)

Located in Ekstrom 500, the Academic Center for Excellence (ACE) is dedicated to helping Naugatuck Valley Community College students succeed and achieve academic success. The ACE is a complementary campus resource providing tutorial services in various subjects including math, writing, science, ESL, computer software applications, and accounting. Students can walk in and receive help from one of our professional or peer tutors who focus on students and their success. In addition, the ACE is where students can come for individual and group study, research assistance, exam proctoring, college success tip sheets, academic workshops and ACCUPLACER® preparation assistance. There are more than 45 computers in the ACE for student use. Students who frequently visit the ACE improve their overall grades and successfully complete their courses at higher rates than students who do not take advantage of the ACE. Phone: 203-596-8729 / Website: [nv.edu/ACE](http://nv.edu/ACE)

## Modified Supplemental Instruction (mSI)

The Supplemental Instruction (SI) program at NVCC continues to evolve and grow. Currently we offer a modified Supplemental Instruction (mSI) program developed for developmental Math and English courses.

## **What is mSI?**

mSI is the lab portion of the following courses:

- ENG 096T
- ENG\* H096
- MAT\* H095
- MAT\* H136

## **What mSI is not**

mSI is not a study hall.

## **Purpose of mSI**

The purpose of mSI is to help developmental students gain the skills necessary to succeed in these courses by providing assignments that promote active learning, critical thinking, and transferable skills. Working together with mSI leadership, students put forward their best efforts to pass the developmental courses on the first attempt with a C or better, thus, improving students' confidence to do well in the following college-level courses as well as improving retention rates.

## **Grading in mSI**

Sections that meet once a week 10% of the overall grade comes from mSI and sections that meet twice a week 15% of the overall grade comes from mSI.

## **Summary**

Naugatuck Valley Community College supports intensive and transitional (developmental students) (PA12-40 initiative) by offering mSI labs, which provides leader-guided learning sessions to improve student success with developmental English and Math courses. Students in the mSI sessions work on a computer platform with guidance from an mSI leader to build critical thinking and transferable skills. mSI also provides a place for students to review current course materials and clarify additional questions. Students in mSI receive participation percentage for their performance with the computer platforms.

## **What You Can Expect from an ACE Tutor**

- Encouragement
- Motivation
- Respect for Your Learning Style
- Tips on How to Study for a Test
- Assistance with Understanding Course Content
- Patience

## **What ACE Tutors Expect from You**

- To attend class on a regular basis
- To have specific questions
- To bring information regarding course content and assignment details
- Use tutoring as assistance is needed, not just before a test

**Math Tutoring:** The math lab offers a quiet, convenient environment for students to work on their math homework and projects. A collection of textbooks, solution manuals and calculators are available for use and tutors are available to assist students through the process of problem solving. All computers in the ACE are equipped with interactive computer tutorials. We also offer access to MyMathLab®, a comprehensive software system designed to help students with basic mathematics through calculus with internet-based assignments and tests.

**Writing Center:** In the writing center, students can expect to receive assistance with a written assignment with the tutor paying particular attention to thesis development, argument, and organization. Our tutors help the student identify writing problems and develop possible strategies to correct them. The tutor helps in the brainstorming process when the student is just beginning a writing project. The tutor helps the student understand the purpose of an assignment. In the case of grammar or punctuation problems, the tutor reviews the rules and makes sure the student understands the details. The student is ultimately responsible for completing the assignment and correcting his or her work. Students can usually expect a twenty minute session with a writing tutor and they should limit their sessions to two or three per assignment.

**Science Exploration Zone:** In the science exploration zone, students can receive science tutorial assistance in chemistry, anatomy and physiology, biology, and physics. The zone is equipped with computers, complete with science simulation software, microscopes, videos and textbooks. Students have use of anatomical models including full-body skeletons, skulls, and vertebrae sets to aid learning and bring material to life.

**Computer Assistance:** Whether assistance is needed with designing a PowerPoint presentation, developing an Excel spreadsheet or learning the latest Microsoft Office version, tutors are available. Our peer tutors are experienced and eager to help students.

**Placement Testing Preparation:** Students are encouraged to review basic concepts in grammar, reading, arithmetic, trigonometry and algebra before taking the placement test, especially if they have been away from school for more than a year. The ACE offers a number of resources to help students prepare, including study guides, practice tests and tutors available to help strengthen skills. Contact (203) 596-8717 if you have any questions, or utilize our website at: [nv.edu/ace](http://nv.edu/ace) or follow us on Facebook.

## Program Administration

The academic programs of the College are administered by instructional divisions. It is important for students to be aware of the division in which their program of study resides. The following are the instructional divisions and the courses or program designations for which they are responsible:

### Credit Programs

**Allied Health/Nursing:** Nursing, Physical Therapist Assistant, Radiologic Technology, Respiratory Care.

**Business:** Accounting, Automotive Technician, Business Administration - Business Computer Applications, Business Finance, Computer Information Systems Technology, Computer Networking, Cybersecurity, Fire Technology and Administration, Hospitality Management/Hotel Management, Legal Assistant/Paralegal, Management, and Marketing.

**Liberal Arts and Behavioral/Social Sciences:** American Sign Language, Anthropology, Art, Center for Early Childhood Education, Child and Family Services, Communication, Connecticut State Legislative Internship Program, Criminal Justice/Public Safety, Dance, Digital Arts Technology, Disabilities/Mental Health, Drug and Alcohol Recovery Counselor, Early Childhood Education, English, English as a Second Language, Geography, Gerontology, Graphic Design, History, Humanities, Human Services, Interdisciplinary Studies, Modern Languages, Music, Philosophy, Photography, Political Science, Psychology, Sociology, and Theater.

**Science, Technology, Engineering & Mathematics:** Automated Manufacturing Engineering Technology, Biology Studies, Chemistry Studies, Computer-Aided Drafting/Design, Electronic Engineering Technology, Engineering Science, Engineering Technology, Environmental Science, Horticulture, Mathematics Studies, Mechanical Engineering Technology, Physics Studies and Technology Studies.

## ACADEMIC HONORS/GRADUATION REQUIREMENTS

### Academic Honors

Honor societies representing several curriculum disciplines exist to recognize specific academic achievement. Student chapters of several professional societies are also available. The honors policy at Naugatuck Valley Community College is as follows:

#### Semester Honors:

- Dean's List - A 3.4 grade point average for the semester
- Full-time students who are matriculated in a certificate or degree program and who successfully complete 12 or more credits of work in a semester with a grade point average of 3.4 or higher shall be recognized by having their names placed on a Dean's List.
- Part-time students who are matriculated in a certificate or degree program are also eligible for such recognition when they have completed 12 or more credits of work with a cumulative grade point average of 3.4 or higher. They may be subsequently recognized at the completion of an additional 12 or more credits of work with a cumulative grade point average of 3.4 or higher, and at successive intervals of 12 credits.
- A course Withdrawal or Incomplete shall make the student ineligible for Dean's List recognition that semester. Upon completion of the Incomplete, the student may be recognized retroactively.
- Students who are in a probationary status are not eligible for Dean's List recognition, even if their cumulative grade point average might otherwise make them eligible.

**Phi Theta Kappa** - Students with a semester GPA of 3.40 or higher.

**Alpha Beta Gamma** - Business Major students with a CGPA of 3.0 or higher and completion of at least 15 College credits.

### Alpha Beta Gamma

Alpha Beta Gamma is an international business honor society established in 1970 to recognize and encourage scholarship among college students in business curricula at community, junior and technical colleges. The Society has over 35,000 members from 140 member colleges. To achieve this goal, Alpha Beta Gamma provides an opportunity for the development of leadership and service, an intellectual climate for the exchange of ideas and ideals, lively fellowship for business scholars, and the stimulation of interest in continuing academic excellence. The lives of members, chapter advisors and support administrators have been enriched by the Alpha Beta Gamma experience. Alpha Beta Gamma exists to honor the superior student in business programs.

### Lambda Epsilon Chi (LEX)

LEX is a national Legal Assistant/Paralegal Honor Society. Students who have superior academic performance and complete two-thirds of the program requirements are eligible to be inducted.

### Phi Theta Kappa

Phi Theta Kappa is a nationwide honor society for community college students. The criteria for invitation are a 3.40 or above grade point average with at least 24 completed credits, including all majors. The achievements and future plans of its members are focused to promote continued honors behavior and to maximize their educational attainment. These goals are accomplished by numerous articulation and transfer scholarships with many colleges and universities. A Faculty Honors Advisor offers guidance and assistance to the Phi Theta Kappa members who represent approximately the top three percent of the student body. Membership is a lifetime honor.

### The Honors Institute

The Honors Institute will enable students who have demonstrated significant academic achievement to participate in a rigorous course of study to advance their knowledge and research skills. Graduates who meet the course work will receive an Honors designation on their

transcript. Full time and part time students may apply. Applications are accepted until October 1 for the Spring semester, and April 1 for the Fall semester. In order to be admitted, students must have obtained at least 12 college credits (NVCC or transfer) with a cumulative GPA of at least 3.4 and must have obtained a letter of recommendation from a faculty member.

To graduate with Honors Distinction:

- A student must complete nine credits of Honors course work:
- Two honors by contract courses
- One capstone "Special Topics" course
- Attain a minimum 3.4 CGPA in each course
- Attain a minimum 3.4 CGPA in the degree program
- Each HBC course will conclude with a student presentation.

The Honors Institute affords students direct access to faculty mentoring, more independent study opportunities, and early entrance into Phi Theta Kappa Honor Society. Success in the Honors Institute increases transfer opportunities, gains student recognition at the Honors Showcase and commencement, and includes honor status on the student's transcript.

## Graduation Honors

Students with exemplary academic performance shall be recognized at graduation with the following designations, either in Latin or English, as the college may choose:

- Summa Cum Laude/Highest Honors for students with a 3.9 - 4.0 grade point average
- Magna Cum Laude/High Honors for students with a 3.7 - 3.89 grade point average
- Cum Laude/Honors for students with a 3.4 - 3.69 grade point average

Students with an Incomplete may become eligible retroactively for graduation honors upon completion of the course requirements, and recognition shall appear on the transcript, provided that the student has earned the required grade point average. Grades received for developmental courses may be used to determine eligibility for semester honors. However, they cannot be used to determine eligibility for graduation honors.

**To Graduate with Honors Distinction:**

- A student must complete nine credits of Honors course work:
- Two honors by contract courses
- One capstone "Special Topics" course
- Attain a minimum 3.4 G.P.A. in each course
- Attain a minimum 3.4 GPA in the degree program
- Each HBC course will conclude with a student presentation.

## Graduation Requirements

### Degree/Certificate Eligible Students

The College awards the degrees of Associate in Arts and Associate in Science. To be eligible for an associate degree, the student must have fulfilled all of the following:

- been accepted into a degree program at the College.
- satisfactorily completed the courses required in the curriculum for the degree. In addition to the degree requirements, students are strongly urged to take advantage of courses available which will broaden their personal and professional lives.
- completed a minimum of 25 percent of all academic requirements for the degree at Naugatuck Valley Community College.
- earned a minimum cumulative grade point average of 2.0.
- been recommended for graduation by a vote of the Professional Staff of the College or an affirmative recommendation from the Division Director, Department Chairperson or the Program Coordinator.

- complete the graduation application at [nv.edu/gradapp](http://nv.edu/gradapp) and submit by December 1 for January conferral or March 15 for May, or July 1 for August conferral. There is no application fee.
- paid to the College all bills incurred, and must have returned or paid for all materials loaned by the College, including library books, audiovisual and athletic equipment.

## Developmental Courses

### Credit Courses Which Do Not Apply to Electives or the Degree

The following credit courses do not satisfy the elective or degree requirements in any program except where specifically listed.

ENG\* H096, ENG\* H063

ESL\* H013, ESL\* H015, ESL\* H017, ESL\* H022, ESL\* H025

MAT\* H075, MAT\* H092, MAT\* H094, MAT\* H095

### Earning a Second Degree

A student who already holds an academic degree may earn a second degree in a different curriculum at a community college. Such a student shall be treated similarly to a transfer student with respect to the minimum number of credits he or she must take for the second degree. This will require that a student meet all program requirements and earn at least 25 percent of the minimum requirements for the new curriculum at the college through which the second degree is to be conferred.

- A student may earn two degrees simultaneously at a community college by fulfilling all requirements stated above.
- Requests for additional degrees beyond the second require prior approval from the academic dean. Students who receive approval must then complete all program requirements, including earning at least 25 percent of the minimum requirements for the new curriculum at the college through which the degree is to be conferred.
- Completion of the requirements of an additional program option does not constitute a different degree.

### Certificate Requirements

Students who complete the requirements for a credit certificate are expected to follow the same procedures described for degree students.

Individuals completing non-credit certification programs (e.g., Certified Nurse Aide, Emergency Medical Technician) should check with the Continuing Education Department to verify their completion of, and compliance with, all state-mandated regulations.

## STUDENT SERVICES AND PROGRAMS

### Center for Job Placement and College Opportunities (CJPOC)

Traurig Learning Resources Center & Library, Room L524  
Phone: (203) 575-8158 • Fax: (203) 596-8794  
nv.edu/cjpc

#### **Waterbury:**

Monday - Friday, 8:30 a.m. to 4:30 p.m.  
Evening hours by appointment only.

#### **Danbury**

Administrative Offices  
Visit the calendar for days and times at nv.edu/jpc

The Center for Job Placement and College Opportunities' (CJPCO) services include career planning, employer connections, cooperative education, internships, student workers and student assistants. Learn to conduct a job search, use Internet services effectively in all phases of career planning, including finding a career that suits your strengths and personality type, as well as the hiring outlook, salary information and educational requirements of careers of interest to you. Learn to write effective resumes and cover letters, interview effectively and connect with employers who are actively hiring employees or interns. Sign up for our online job posting board at

[www.collegecentral.com/nvcc](http://www.collegecentral.com/nvcc) to view part-time, full-time, internship and work study job postings and to post your resumé.

All CJPCO services are open to alumni as well as to current students.

### Workforce Transition Services

**W.I.A. Programs** The federal Workforce Investment Act (W.I.A.) offers a comprehensive range of workforce development activities through statewide and local organizations. Naugatuck Valley Community College is a partner with the Northwest Regional Workforce Investment Board. NVCC offers programs that are certified to provide education and training to adults and dislocated workers who have been awarded vouchers under W.I.A., these may include:

- Job Seekers
- Laid-off Workers
- Youth
- Incumbent Workers
- New Entrants to the Workforce
- Veterans
- Persons with Disabilities
- Employers

For more information, or to learn if you qualify, contact your local Department of Labor at [www.CTDOL.state.ct.us](http://www.CTDOL.state.ct.us). Once qualified by the D.O.L. students should schedule an appointment to determine an educational plan. Contact:

Linda Stango, Director of Workforce and Transition  
190 Main Street, Danbury, CT 06810  
Tel. (203) 437-9699

**or**

750 Chase Parkway, Room L524  
Waterbury, CT 06708  
Tel. (203) 575-8221  
[lstango@nv.edu](mailto:lstango@nv.edu)

## Center for Academic Planning and Student Success (CAPSS)

Kinney Hall Room K520  
 Phone: 203-575-8025  
 Fax: 203-596-8610  
 Email: [CAPSS@nv.edu](mailto:CAPSS@nv.edu)

The counselors and advisors in the CAPSS assist students with academic advising along with a variety of career, transfer and personal concerns. Appointments may be made in person, by phone or email at the contact information above. Services are also available at the Danbury Campus: Second Floor, Administrative Offices.

- **NEW** students to the college who want to know about admissions and program requirements should contact the Admissions Office at (203) 575-8040.
- **CONTINUING** students to the college should contact their faculty advisor: A list of advisors can be found in the CAPSS office or by logging into [my.Commnet.edu](http://my.Commnet.edu).
- **Academic Advising** Academic advising is offered to assist students in recognizing the options that are available for their educational planning, to illustrate the need to plan ahead, to learn the language of educational planning, learn the optimal sequence of courses, identify academic requirements and electives, educational decision making, and develop an overall educational plan.
- **Testing Center** Listed below are the tests offered and administered in the Testing Center. Students may elect to have prior learning evaluated by the following examination options:
  - College Level Examination Program (CLEP) allows individuals to earn college credit for what they already know. NVCC awards credit for successful scores on CLEP exams. CLEP tests may be taken at Naugatuck Valley through the Testing Center.
  - Credit by Examination - Some divisions and departments of the College produce their own examinations for credit. Contact your advisor or the Testing Center for more information.
- **Test of Essential Academic Skills (TEAS)** Students applying to the Nursing or Physical Therapist Assistant programs are required to take the TEAS.
- **Accuplacer (Placement Test)** Incoming students enrolled in a degree or certificate program are required to take the placement test to assess academic skills in mathematics, English and reading.
- **Career Counseling** Career counseling is an educational and developmental process that is dedicated to student self-realization and self-direction, and assists students in developing skills in career decision making. In collaboration with the CJPCO, CAPSS offers several career planning opportunities including career assessments and individual career counseling appointments.
- **Personal Counseling** Counseling within the CAPSS office takes a holistic approach to student success. Short term counseling services are provided by professionally trained counselors for personal concerns. Some concerns for personal counseling include but are not limited to; academic issues and dilemmas, making life decisions, developing self-confidence, managing stress, and alleviating personal barriers to success in college. Referrals to outside agencies are made as needed.
- **Transfer Planning** Students planning to transfer upon graduation to other colleges or universities should meet with their academic advisor or see a counselor early in their academic studies. Credits that are transferable and applicable vary from college to college, so it is critical that students learn about the college of their choice and the transfer process for that college. CAPSS hosts semiannual Transfer Fairs for students in which area colleges and universities are represented.

## Transfer Information

Counselors and/or advisors provide assistance for students who plan to transfer into a four-year college or university. Information is available in CAPSS on the transfer of credits, scholarships, financial aid and admission requirements for both in-state and out-of-state colleges and universities. Students should consult with their receiving institutions to confirm that courses will transfer.

### Transfer to the Connecticut State Universities (CSU's)

Graduates of the Connecticut Community Colleges with a GPA of 2.0 or higher are guaranteed admission to the state university of their choice within the Connecticut State College and University System. Students must adhere to the application deadlines. See the Center for Academic Planning and Student Success (CAPSS) for details.

Transfer Ticket Degrees allow NVCC students to complete associate degree programs that transfer without hassle to all Connecticut State Universities and Charter Oak State College offering their major. Upon transfer, students are guaranteed full junior status and can complete a bachelor's degree in their major without losing any credits or be required to take any extra credits.<sup>1</sup>

For students who wish to start a bachelor degree at NVCC, we offer Transfer Tickets Programs in the following degrees:

Accounting (Business)	Economics	Political Science
Art	English	Psychology
Biochemistry	Finance	Social Work
Biology	French	Sociology
Business	Geography	Spanish
Business Administration	History	Theater
Chemistry	Italian	
Communication	Management (Business)	
Computer Science	Marketing (Business)	
Criminology	Mathematics	
Early Childhood (Teacher Credential)	Physics	

For additional information regarding these programs, please see an NVCC advisor and review

information at the CSCU Transfer Ticket Website at <http://www.ct.edu/transfer/tickets>

1Note: Transfer Tickets do not include seamless transfer to the University of Connecticut.

## Transfer to the University of Connecticut

The University of Connecticut (UConn) offers the Guaranteed Admission Program (GAP), an agreement between the University and the Connecticut Community Colleges. Naugatuck Valley students may apply if they:

- Complete an application through the Center for Academic Planning and Student Success (CAPSS) prior to completion of **30** transferrable credits
- Limit to majors offered in UConn's College of Liberal Arts and Sciences and College of Agriculture and Natural Resources
- Complete a prescribed articulation program at NVCC
- Earn a minimum 3.0 GPA upon graduation from NVCC
- Observe the application procedures and deadlines within the agreement

Other articulations currently exist for programs at UConn's Waterbury Campus:

- Business and Technology
- Urban and Community Studies
- Bachelors of General Studies

NVCC students are free to apply for transfer to any of UConn's many colleges and programs at any time. Many of these programs are very competitive. It is important that the student consult with their faculty advisor or the CAPSS for advisement.

NVCC also has various transfer articulation agreements with the following colleges and universities located in Connecticut:

- Fairfield University
- Quinnipiac University
- Saint Joseph College
- Sacred Heart University
- University of Bridgeport
- University of Hartford
- University of New Haven

## Student Insurance/Accident Reports

Injuries acquired as the result of a school related activity must be reported to the faculty or staff member in charge and to the Office of Disability Services within 24 hours of the time of the injury. Accident report forms are available in this office. For more information, contact the Office of Disability Services.

## Services for Students with Disabilities

Kinney Hall Room K519  
Phone: 203-596-8608

Facilities at this college are uniquely appropriate to meet the needs of students with disabilities. Elevators are available to accommodate students in wheelchairs, making classrooms accessible to all students.

During the admissions process students with disabilities who may require accommodations are strongly encouraged to identify themselves to the Admissions Office. This will enable college support staff to provide appropriate assistance with program planning, placement testing, course scheduling and classroom accessibility appropriate to the student's needs.

After submitting appropriate documentation and completing the disabilities disclosure process, students with disabilities who may require accommodations must contact the Counselor for Students with Disabilities in the CAPSS Office.

Students may discuss their needs with individual instructors. Discussions with faculty should occur at the beginning of each semester and each time an accommodation is required. Instructors, in conjunction with appropriate college officials, will provide assistance/accommodations only to those students who have completed the disclosure and accommodation process. If a student does not disclose a disability, the College will be unable to provide accommodations. The College reserves the right to determine the nature and extent of appropriate academic accommodations. Students requiring ambulatory assistance are strongly encouraged to identify themselves to the Office of Disability Services so that emergency evacuation plans may be made.

**The College makes every attempt to adhere to both the guidelines and spirit of the Americans With Disabilities Act.**

## Women's Center

Kinney Hall Room K405  
Phone: (203) 575-8288 or (203) 596-8680  
Website: [nv.edu/women](http://nv.edu/women)  
Facebook: NVCC Women's Center

The Women's Center at NVCC assists students to achieve their full potential in education, career, and personal life, as they face and overcome issues unique to women. The Women's Center provides support for NVCC student's intellectual and academic growth, professional development, and personal empowerment.

The Women's Center is a safe place for all women to gather, explore, and share their experiences. The Center facilitates education on issues related to feminism, gender, and domestic and sexual violence.

The Women's Center organizes events of interest to students and the college community such as book discussions, film documentaries, discussion groups, speaker series, workshops and more.

The Women's Center provides resources for students in the areas of crisis intervention, confidential counseling, and community services.

For information on hours and upcoming events, like us on Facebook "NVCC Women's Center."

## **Orientation**

An orientation program for all new students is designed to assist in the successful transition from high school, home or the workplace to Naugatuck Valley Community College. It is intended to provide entering students with information concerning academic policies, study skills, general college procedures and requirements, the academic expectations of the College, the co-curricular and extracurricular opportunities, and the available student services. Students should be better able to make reasoned and well-informed choices as a consequence of participation. It is expected that all students new to NVCC attend orientation.

## **Student Activities**

A variety of more than 33 social and educational clubs and organizations are available for participation by full and part-time students attending the College. These organizations are designed around the needs and interests of the student population. They are continuously being developed by the Office of Student Activities in conjunction with students and members of the College's faculty and staff who serve as advisors. Students are encouraged to join campus organizations as a means of meeting new friends and obtaining experiential learning opportunities outside their regular classroom programs. Funding for all clubs and organizations is provided by the Student Activity Fee and dispersed by the Student Government Association. In addition, students can find academic honor opportunities in the Academic Standards section.

## **Student Government**

The Student Government Association of Naugatuck Valley Community College is the recognized governing body representing the concerns and interests of the College's student community. Membership consists of representatives elected from each of the various student clubs and organizations, senators who have successfully collected petition signatures from fifty (50) members of the general student body, and four (4) officers elected each spring semester. Membership is open to all full and part-time students interested in participating. Regular weekly meetings are open to the campus community. The Student Government is responsible for the recognition and funding of all student clubs and organizations on campus. Operating funds for the Student Government are provided by the Student Activity Fee.

## **NVCC Alumni Association**

The NVCC Alumni Association offers alumni and their families educational and cultural programs, usually at no cost. Alumni are invited to volunteer to tutor or mentor NVCC students. Alumni Association members hold their own events and often contribute to scholarships. The Development Office has more information.

## **Public Safety Services**

The Public Safety Department is located in the Core Building, Room C122. The department employs sworn police officers, building and grounds officers and telecommunication operators. Sworn members of this department are empowered with all rights and responsibilities of their position as a police officer.

## **Parking**

Specific parking areas are designated for visitors, students, faculty and staff. Parking permits are required for all faculty and staff and may be obtained at the Public Safety Office located in the Core Building, Room C122.

Students may park on a first-come, first-served basis in D lot, E lot, F lot, and P1/P2 of the core garages, overflow lot, roadways where designated, except in those areas designated as handicapped, visitors, fire lanes or grass areas, and in those identified by a sign on special occasions. There is NO student parking in C lot or the Ekstrom garage, Monday-Friday, 6:00 am-5:00 pm. The lack of parking space does not permit the violation of a parking regulation. Vehicles may be towed if they are in violation of the parking regulations without notice to the owner. The speed limit on the roadways is 15 miles per hour.

## **Parking at Danbury Campus**

All students are required to display a parking tag for the Danbury Parking Authority. Parking tags for students are available in the administrative office at the NVCC Danbury Campus located at 190 Main Street, Danbury, CT.

The College does not assume responsibility for any motor vehicle, parked or in motion, or its contents.

## **Services Offered by the Department**

The Public Safety Department responds to several types of calls for service including:

- a safety escort,
- assistance during emergency evacuations,
- assistance during medical emergencies\*,
- lost and found property,
- motor vehicle accidents, and
- any suspected criminal act.

**\* In the event of an emergency, go to the nearest phone and dial either 58112 or 58113 for assistance.**

Public Safety offers LiveSafe a free app which provides a 24/7 link to our campus public safety, virtual escort services, access to safety resources, and an easy way for everyone to communicate their safety needs. Visit [nv.edu/livesafe](http://nv.edu/livesafe) for more information.

## **Report on Campus Crime**

In compliance with Connecticut General Statutes section 10a-55a, the Federal Higher Education Act of 1998, concerning campus safety, the Public Safety Department produces a yearly report which identifies the mandated crimes reported and investigated on campus. This report is available on the website at [nv.edu/cleryreport](http://nv.edu/cleryreport), posted throughout campus and in the Public Safety Office.

## **Campus Resource Team (CRT)**

In compliance with state and federal regulations, the Campus Resource Team (CRT) will assist the College in addressing issues of Sexual Violence, Dating Violence, Stalking, and Intimate Partner Violence. The CRT consists of members of the NVCC Community as well as the local community and law enforcement. This team will meet regularly to discuss, suggest, develop, guide, and support ways to make NVCC more aware of and sensitive to the issues of Sexual Violence, Dating Violence, Stalking, and Intimate Partner Violence as well as the College policies and procedures that address these issues.

## **Child Development Center**

The Center for Early Childhood Education is designed to foster the social, physical, emotional and intellectual growth of each child by providing a warm, nurturing and enriching environment. The Center is the academic component of the Early Childhood Education Program and serves as a training center for student teachers. The Center is accredited and utilizes the Reggio Emilia Approach and the Connecticut State Frameworks. Children must be 18 months of age to enroll in the toddler program and three years of age to enroll in the pre-school program.

The extended-day program is offered:

Monday-Thursday 7:30 am - 4:00 pm

Friday 7:30 am - 12:00 noon

The half-day program is offered:

Monday-Friday 7:30 am - 12:00 noon

Applicants are encouraged to apply as soon as possible. Traditionally, there is a waiting list of two to three years. For more information, contact The Center at (203) 596-8604.

## School Readiness Component

Through the School Readiness initiative children may attend The Center. Children must be 3 years old to attend and with a priority for residents of Waterbury to apply. Fees are set according to a sliding fee scale. The children may attend 7:30 am - 5:30 pm, five days per week, 50 weeks per year. For more information contact The Center at (203) 596-8604.

## Bookstore

### George D. Yonan Memorial Bookstore

The college bookstore is located on the third level of the Student Center, Room S304. In addition to textbooks, the bookstore offers course materials, supplies, clothing, electronics, gift items, etc. Regular bookstore hours are Monday-Thursday, 8:30 am-4:30 pm and Friday 8:30 am-1:00 pm. Extended bookstore hours at the beginning of each semester are posted on the web site at [nv.edu/bookstore](http://nv.edu/bookstore) as well as the T.V. monitors throughout the campus. Textbooks may also be ordered on line through our on-line ordering system.

**REFUND POLICY:** Textbooks may be returned for full refund or exchange during the first week of the semester. Books must be clean, unmarked, in original packaging if purchased that way and not damaged in any way. **Cash register receipt MUST accompany ALL book returns.** Electronics are not returnable. Clothing is returnable as long as all tags are still attached to merchandise.

## Dining Services

**Marigolds Café** (*Student Center 5th floor - Full service café through 2 pm daily / grab and go service until 6 pm.*)

Monday-Thursday: 7:30 am - 6:00 pm / Friday: 7:30 am - 1:00 pm

**Jacobys Café** (*Founders Hall - Hot and cold beverages, snacks, pastry, soup, grab and go sandwiches and prepared salads daily.*)

Monday-Thursday: 8:00 am - 1:45 pm / Closed Friday

In addition, vending services are available 24 hours a day at:

- Student Center Cafeteria
- Ekstrom Hall, 5th and 6th Floors
- Founders Hall
- Kinney Hall, 5th and 7th Floors
- Technology Hall, 5th Floor

## Other Services

Two ATMs are located on the 5th Avenue Walkway.

## Bridge to College

In its strategic plan, NVCC committed to creating and strengthening bridge programs with local high schools that contribute to preparing college-ready students. These initiatives fall under the Bridge to College Office and include programs that have been in place for a number of years, such as GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs), as well as new initiatives that were recently funded. These programs include:

- Upward Bound
- Upward Bound Math and Science
- Perkins
- College and Career Pathways (CCP)
- Male Encouragement Network (MEN)

For more information visit <https://www.nv.edu/Academics/Academic-Programs/Bridge-to-College>

## **Assessment Expectations**

Students at Naugatuck Valley Community College are expected to spend several hours during their college career in college-wide outcome assessment activities, such as tests, surveys and interviews.

## **Conntac-EOC Office**

The Connecticut Talent Assistance Cooperative (CONNTAC) is a state agency funded by the United States Department of Education. A regional CONNTAC Educational Opportunity Center (EOC) is located on the Naugatuck Valley Community College campus. Services offered through the Center include: academic and career counseling, college referral and financial aid planning. For more information, call (203) 574-1140.

## GENERAL EDUCATION CORE

### Definitions You Need to Know When Selecting Your Program and Courses

1. **Credit Hours (cr.)** - College work is measured in units called credit hours. A credit-hour value is assigned to each course and is normally equal to the number of hours the course meets each week. Credit hours may also be referred to as semester hours.
2. **Contact Hours** - The actual number of hours required in a class or lab.
3. **Lecture Hours (lec.)** - The number of clock hours in the fall or spring semester the student spends each week in the classroom. This time frame is different for the shorter summer sessions.
4. **Laboratory Hours (lab.)** - The number of clock hours in the fall or spring semester the student spends each week in the laboratory or other learning environment. This time frame is different for the shorter summer sessions.
5. **Prerequisite** - A course that must be successfully completed or a requirement such as related life experiences that must be met before enrolling in another course.
6. **Corequisite** - A course that must be taken during the same or earlier semester as the course in which one is enrolling.
7. **General Education Requirements** - A term which refers to courses that meet the eleven General Education Competencies. (See next page.)
8. **Electives** - Courses which may be chosen from items 9 10 or 11.
9. **Liberal Arts Electives** - All course subjects listed in the General Education Core, modern languages, ESL, and advanced courses with the same designations. Exceptions: Horticulture, Business, and Allied Health courses do not qualify.
10. **General Electives** - All credit courses numbered 100 or higher listed in the catalog. Students should consider transferability of courses when choosing general electives.
11. **Directed Electives** - Credit courses that satisfy specific program requirements. These courses are listed with each program area.
12. **Foreign Language Equivalencies** - The following equivalencies satisfy the modern language requirements:
  1. 3 years of high school work in a single foreign language ancient or modern or
  2. 2 years of high school work and an added semester of a college course at a more advanced level in a single foreign language or
  3. 2 semesters of a single foreign language in college.

*Note: Students may also take CLEP (College Level Examination Program) to satisfy the modern language requirements. Information on these tests is available from the Testing Center.*

*Note: ESL students may use up to six credits of Intermediate and Advanced levels of ESL courses to fulfill the Modern Language requirements.*

13. **Non-Credit** - A course of study that does not apply towards a college degree; college credit is not earned. Typically designed as short courses, workshops, and customized programs; non-credit programs focus on knowledge and skills that can be applied directly to the job or personal and professional growth.
14. **Continuing Education Unit (CEU) Certificates** - CEU certificates are awarded in conjunction with mandatory continuing education requirements across different fields including: teacher professional development real estate nursing allied health insurance appraisal. Prior approval from the learner's Local Education Association must be obtained. Typically CEU's are awarded on a 1:10 ratio (i.e. one CEU for every ten hours of qualified instruction).

**This College continues to add and adjust courses course designations and course numbers to its offerings. The General Education and the definitions will be adjusted accordingly.**

### Our Philosophy and Requirements

Naugatuck Valley Community College considers general education an important component of its degree programs. While an appropriate level of mastery in occupations and technologies is clearly essential students are better prepared to live in the world and use this mastery only if they are also capable of understanding fundamental theory weighing values and forming independent judgments.

The College defines General Education in terms of the following competencies and goals:

Appreciation of the Aesthetic Dimensions of	Students will understand the diverse nature, meanings, and functions of creative endeavors through the study and practice of literature, music, the theatrical and visual arts, and related forms of expression.
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Humankind 3 credits	
Appreciation of the Ethical Dimensions of Humankind (Across the Curriculum)	Students will identify ethical principles that guide individual and collective actions and apply those principles to the analysis of contemporary social and political problems.
Continuing Learning and Information Literacy 3 credits	Students will be able to use traditional and digital technology to access, evaluate, and apply information to the needs or questions confronting them throughout their academic, professional, and personal lives.
Critical Analysis and Logical Thinking (Across the Curriculum)	Students will be able to organize, interpret, and evaluate evidence and ideas within and across disciplines; draw reasoned inferences and defensible conclusions; and solve problems and make decisions based on analytical processes.
Historical Knowledge and Understanding 3 credits	Students will study the interrelatedness of various realms of human experience from multiple historical perspectives.
Oral Communication 3 credits	Students will be prepared to develop oral messages of varying lengths and styles that communicate effectively and appropriately across a variety of settings.
Quantitative Reasoning 3 credits	Students will learn to recognize, understand, and use the quantitative elements they encounter in various aspects of their lives. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.
Scientific Knowledge and Understanding 3-4 credits	Students will gain a broad base of scientific knowledge and methodologies in the natural sciences. This will enable them to develop scientific literacy, the knowledge and understanding of scientific concepts and processes essential for personal decision making and understanding scientific issues.
Scientific Reasoning 3-4 credits	Students will become familiar with science as a method of inquiry. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.
Knowledge and Understanding of Social Phenomena 3 credits	Students will develop an increased understanding of the influences that shape a person's or group's attitudes, beliefs, emotions, symbols, and actions and how these systems of influence are created, maintained, and altered by individual, familial, group, situational, or cultural means.
Written Communication (6 Credits and Across the Curriculum)	Students will be prepared to develop written texts of varying lengths and styles that communicate effectively and appropriately across a variety of settings.

## General Education Core Course Requirements

Focusing on the above competencies, course work in the General Education Framework ensures that NVCC students gain the fundamental skills, knowledge, and values needed for success in their academic, professional, and personal lives. A list of courses that fulfill each competency may be found under the "Approved Courses" link on the General Education website: <http://www.nv.edu/GEACC>. Students will fulfill General Education Requirements by completing the requisite number of credits in courses associated with each competency. For competencies identified as "Across the Curriculum" students should adhere to program requirements in order to fulfill these areas.

### Scientific Knowledge or Reasoning Requirement

Students must successfully complete at least one Scientific Reasoning or Scientific Knowledge course that contains a lab component.

### General Education Program Oversight and Assessment

The General Education Requirements are reviewed and assessed by the General Education Assessment and Curriculum design Committee (GEACC). This committee is composed of one library representative, and 10 faculty as well as non-voting members from the Registrar, Center for Academic Planning and Student Success (CAPSS), Curriculum and Educational Affairs (CEAC) and the Dean and

Associate Dean of Academic Affairs. The committee must have at least one member with expertise in each competency area, and each academic division must have at least one and no more than 3 members.

The duties of the committee include identifying and approving college courses used to fulfill competency requirements. The committee is also responsible for researching, scheduling, and assisting in the implementation of assessment methods to determine if students are achieving competency outcomes.

## **General Education for Connecticut State University Transfer Students**

In order to ease transfer between state colleges and universities within the Connecticut State Colleges and University system NVCC's General Education program reflects the system's General Education Framework. Based on this Framework students graduating with an Associate degree who complete NVCC's General Education Requirements will be granted General Education credit upon transfer to any Connecticut State University or Community College. Please consult with the University or College to which you are transferring regarding which credits will be accepted.

## **NVCC General Education Requirements (including the TAP Framework 30)**

With a few exceptions, all programs at NVCC will contain courses from all Core Competencies. See particular program requirements for program-specific requirements in how these competency areas will be met. Generally any given course can only be used to satisfy one competency area, even if it appears in multiple areas. If the program requirement is an "elective" from the competency, any course listed in that group may be used. Courses "taken sequentially" can be taken in any order as long as prerequisites are met. Note: Letter H appears in all NVCC course numbers; it is the code letter for our college in the CT Community College system. Since it is redundant for our college, the H is not reproduced below. The \* denotes the Common Course Numbering; courses with the \* all have the same number as similar courses at other community colleges in Connecticut, though the other colleges will insert their appropriate code letter.

- Aesthetic Dimensions/Written Communication
- Continuing Learning and Information Literacy/ Ethical Dimensions
- Critical Analysis and Logical Thinking
- Historical Knowledge and Understanding
- Quantitative Reasoning
- Social Phenomena
- Oral Communications
- Scientific Knowledge and Understanding
- Scientific Reasoning
- Written Communication

### **TAP-specific Gen Ed Competency Areas: Creativity and Global Knowledge**

(only required for certain TAP Transfer Ticket degrees: please see requirements for specific program)

- Creativity
- Global Knowledge

## DEGREES AND CERTIFICATES

Naugatuck Valley Community College offers associate degrees, credit certificates, and non-credit certificate programs. Current non-credit certificate programs can be found by visiting [www.nv.edu/nc](http://www.nv.edu/nc). Curricular patterns are designed to implement the overall general and specific objectives of the College and lead to the degree or certificates indicated below.

### \*BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

A merger of Connecticut's 12 community colleges is underway. Connecticut State Community College (CT State), a statewide college comprised of all Connecticut's current community college locations, plans to open its doors in the Fall 2023. Here are some important facts students need to know:

- the final commencement ceremony for Naugatuck Valley Community College is scheduled for May 2023. Ceremonies will continue to be held at each location as campuses of CT State,
- as a part of the planned merger, students continuing their studies beyond summer term 2023 will be matched with the CT State program that most closely aligns with their spring 2023 major and are offered at the Waterbury and/or Danbury locations,
- students beginning Associate degree programs in Fall 2021 should plan with their advisor/program coordinator to attend full-time if they wish to graduate prior to the planned merger,
- students who begin an Associate degree program in January 2022 would be anticipated to complete their degree at the merged college, Connecticut State Community College,
- in all cases, the College is committed to students completing their education with a minimum of disruption and staying in touch with your advisor/program coordinator is essential,
- further details can be found and will be updated on the Frequently Asked Questions page: [www.ct.edu/ctstate/academics](http://www.ct.edu/ctstate/academics).

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## **ASSOCIATE IN ARTS**

## Liberal Arts and Sciences (HB57)

Liberal education is intended to sharpen intelligence and to foster growth of personal values. The suggested liberal arts and sciences sequences outlined below provide the broad foundation for those students who plan to transfer for a bachelor's degree. The program may also be used as a basis in professional studies such as education, medicine and health, dentistry, pharmacy, law, or business administration. For graduation, students must complete coursework totaling not less than sixty-one (61) credit hours.

Because students need to be aware of specific requirements of those colleges to which they hope to transfer, the Liberal Arts and Sciences Program requires that students seek the advice of a college counselor and faculty advisor, and they must obtain a current catalog from the four-year institution of their choice.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

Liberal Arts graduates may successfully continue their studies at colleges and universities with majors such as:

Anthropology  
 Biology  
 Chemistry  
 Communications  
 Economics  
 Education  
 English  
 Fine Arts  
 Geography  
 History  
 Languages  
 Mathematics  
 Philosophy  
 Political Science  
 Psychology  
 Physics  
 Sociology

With good planning, students may transfer into many other majors as well. Students will work primarily on Core Requirements of transfer colleges, and may also begin to fulfill course requirements in a major, by choosing liberal arts and general electives in their chosen discipline. As a first step, students should refer to the Liberal Arts and Sciences definitions, "General Education Core," and then to the appropriate course descriptions.

It is very important to work closely with an advisor when selecting these courses. The concentration may serve your immediate interest or needs, but the college to which you are transferring makes the final determination as to which courses it will accept.

### PROGRAM OUTCOMES

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

1. Communicate effectively in a variety of formats to meet diverse audience needs.
2. Use current communication technology to address a variety of academic and/or professional needs.
3. Use scientific methods to formulate and test hypotheses.
4. Use quantitative methods to solve problems and analyze data.
5. Respond to complex texts with well-reasoned arguments.
6. Locate and evaluate research for use in a variety of academic and professional contexts.
7. Describe the value of diverse global perspectives.
8. Define a personal and professional code of ethics.

## **CURRICULUM**

### **Program Requirements**

- Additional Critical Analysis and Logical Thinking course **Credits:3**
- Any Philosophy course **Credits:3**
- ENG 2XX Literature course (excludes ENG\* H202, ENG\* H281, ENG\*H282) **Credits:3**
- Modern Language <sup>1</sup> **Credits:6**
- Liberal Arts Elective **Credits:3** from any course in the General Education Core
- General Electives **Credits:12** from any credit bearing courses

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits:3

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

#### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

#### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3 **Credits: 3**  
**or**
- ENG\* H200 - Advanced Composition Credits: 3 **Credits: 3**

## **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Student may substitute general education elective credits for 3 years of Modern Language in high school. Some four-year colleges may require a language proficiency exam. ESL students may use up to six credits of Intermediate and Advanced levels of ESL courses to fulfill the Modern Language and/or Arts/Humanities elective requirements. However, transfer of ESL credits from NVCC to other institutions or from institutions to NVCC is governed by the policies of the receiving institution.

### **BECOMING CONNECTICUT STATE COMMUNITY COLLEGE**

**STUDENTS:** The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.

## Visual and Performing Arts, Dance (HC29)

The **Dance Option** provides students with a broad base of cultural and historical knowledge as well as technique, pedagogy and repertoire in the various dance genres. The creative process is fostered by inclusion of production skills, the art of choreography, and performance opportunities. This foundation will prepare students to further their study, teach, choreograph, and/or perform. Graduates may seek employment in dance education, dance studios, community service organizations, and as production assistants, choreographers, teacher assistants, dance therapy assistants, and as dancers in the arts and entertainment industry. Students must be physically able to participate in studio courses. As of 2006, CT's State Board of Education requires public school K-12 dance certification for dance teachers. The Dance Option provides the required dance courses for this education certification. The Transfer Program articulated with Central Connecticut State University guarantees acceptance of major dance credits.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Demonstrate and execute warm-up exercises specific to all dance forms (ballet, modern, ethnic, jazz).
2. Execute desirable physical activity, preparation, and training for the dancer, actor, or musician so that she/he may intelligently choose a further course of action in the arts.
3. Execute a variety of choreographic styles to enhance and broaden movement and choreographic vocabulary utilizing time, space and energy.
4. Demonstrate kinesthetic awareness, mental and physical coordination, rhythmic sensitivity, and musicality.
5. Identify dancers and choreographers and their particular contributions to the field of dance and their processes in creating dance.
6. Choreograph and perform movement and demonstrate performance skills of concentration, projection, characterization, expression and ensemble work.
7. Demonstrate wherewithal for scheduling and conducting rehearsals and producing a performance that includes staging, lighting, costuming, decor, and publicity.

### CURRICULUM

**Competency or Program Requirement:**

#### First Semester

#### **Aesthetic Dimensions/Written Communications Credits: 3**

- DAN\* H101 - History & Appreciation of World Dance **Credits: 3**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Historical Knowledge and Understanding Credits: 3**

Choose any from:

- HIS\* H101 - Western Civilization I **Credits: 3**
- HIS\* H102 - Western Civilization II **Credits: 3**
- HIS\* H121 - World Civilization I **Credits: 3**
- HIS\* H122 - World Civilization II **Credits: 3**

#### **Oral Communications Credits: 3**

- [Click here on the requirement name Oral Communications](#) to expand the list of courses then select any course listed preferably COM\* H100

## **Program Requirement**

- DAN\* H102 - Ballet I: Renaissance to Romantic **Credits: 3**

## **Second Semester**

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed preferably BIO\* H105

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed preferably ENG\* H102

## **Program Requirements**

- DAN\* H113 - Modern I: Pioneers of America **Credits: 3**
- DAN\* H111 - Jazz I: Afro-Caribbean/American **Credits: 3**
- DAN\* H118 - Dance Pedagogy for Early Childhood **Credits: 1** <sup>1</sup>
- Dance Elective **Credits: 2** <sup>2</sup>

## **Third Semester**

### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H135 - Topics in Contemporary Mathematics or higher than MAT\* H137

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed preferably DAN\* H175

## **Program Requirements**

- DAN\* H202 - Ballet II: Classical to Contemporary **Credits: 3**
- DAN\* H213 - Modern Dance II: Second Generation America **Credits: 3**
- DAN\* H221 - Repertory/Ensemble I **Credits: 3**

## **Fourth Semester**

### **Continuing Learning and Information Literacy/Ethics Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any course listed preferably DAT\* H101

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed preferably ANT\* H101, PSY\* H111, OR SOC\* H101

## **Program Requirements**

- DAN\* H112 - Jazz II: Broadway and Film **Credits: 3**
- DAN\* H222 - Choreographic Principles/Ensemble I **Credits: 3**
  
- DAN\* H232 - Ballet III **Credits: 2**  
or
- DAN\* H234 - Modern Dance III: Post Modern to Contemporary Dance in America **Credits: 2**

## **TOTAL CREDITS: 60-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> In addition to DAN\* H118, students should take a total of two credits from DAN\* H232 or DAN\* H234 in their 4th semester.

<sup>2</sup> Students should choose 3 credits from DAN\* H109 and DAN\* H209 (1 cr each), DAN\* H140 (1 cr), DAN\* H224 or DAN\* H225.

### **BECOMING CONNECTICUT STATE COMMUNITY COLLEGE**

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Visual and Performing Arts, Music (HC31)

The **Music Option**, through a rigorous program of academic and performance courses, provides a comprehensive foundation in which students receive individual attention within their private lessons and interact with other performers in classroom and large ensemble settings. The music program emphasizes ensemble and solo performance with additional study of music theory and history. Musicians of all capabilities and experience can prepare for their particular musical goals including seasoned musicians as well as the talented beginner exploring music for the first time. Music majors pursue careers in performance, education, composition, audio recording, concert sound reinforcement, commercial production, church music, musical instrument service and sales, or arts management. The Transfer Program is designed for students wishing to complete their degree at a 4-year college or university; requirements vary and students should seek assistance from the Music Advisor. The Transfer Program articulated with Western CT State University guarantees admission with complete transfer of NVCC courses. See the Music Advisor for details.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Relate basic musical forms and theoretical principles to performance.
2. Demonstrate technical skills in singing and/or in playing an instrument or instruments.
3. Demonstrate historical knowledge of musical events, styles, forms and concepts.
4. Demonstrate a knowledge of musical literature in the area of the student's major.
5. Demonstrate performance skills via ensemble experience.
6. Develop an appreciation of world culture through the beauty and discipline of the Art of music.

### CURRICULUM

**Competency or Program Requirement:**

#### First Semester

#### **Aesthetic Dimensions/Written Communications Credits: 3**

- MUS\* H101 - Music History & Appreciation I **Credits: 3**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Oral Communications Credits: 3**

- [Click here on the requirement name Oral Communications](#) to expand the list of courses then select any course listed preferably COM\* H100

#### **Program Requirements**

- MUS\* H115 - Music Theory I **Credits: 3**
- MUS\* H163 - Ear Training I **Credits: 1**
- MUS\* H183 - Applied Private Music Lessons I **Credits: 1** (one credit per semester)

Choose one (two credits per semester):

- MUS\* H161 - Chorale I **Credits: 2**  
or
- MUS\* H254 - Concert Band **Credits: 2**  
or
- MUS\* H158 - Chamber Music / Jazz Ensemble I **Credits: 2**

**Second Semester****Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H135 - Topics in Contemporary Mathematics or higher than MAT\* H137

**Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed preferably ANT\* H101, PSY\* H111, or SOC\* H101

**Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed preferably ENG\* H102

**Program Requirements**

- MUS\* H116 - Music Theory II **Credits: 3**
- MUS\* H164 - Ear Training II **Credits: 1**
- MUS\* H183 - Applied Private Music Lessons I **Credits: 1** (one credit per semester)

Choose one (two credits per semester):

- MUS\* H254 - Concert Band **Credits: 2**  
or
- MUS\* H161 - Chorale I **Credits: 2**  
or
- MUS\* H158 - Chamber Music / Jazz Ensemble I **Credits: 2**

**Third Semester****Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

**Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed preferably DAN\* H175

**Program Requirements**

- MUS\* H184 - Applied Private Music Lessons II **Credits: 2** (two credits per semester)

Choose one (two credits per semester):

- MUS\* H161 - Chorale I **Credits: 2**  
or
- MUS\* H254 - Concert Band **Credits: 2**  
or
- MUS\* H158 - Chamber Music / Jazz Ensemble I **Credits: 2**
- MUS\* H213 - Music Theory III **Credits: 3**
- MUS\* H263 - Ear Training III **Credits: 1**

**Fourth Semester****Continuing Learning and Information Literacy/Ethics Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed preferably DAT\* H101

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed preferably BIO\* H105

### **Program Requirements**

- MUS\* H184 - Applied Private Music Lessons II **Credits: 2** (two credits per semester)

Choose one (two credits per semester):

- MUS\* H161 - Chorale I **Credits: 2**  
**or**
- MUS\* H254 - Concert Band **Credits: 2**  
**or**
- MUS\* H158 - Chamber Music / Jazz Ensemble I **Credits: 2**
  
- MUS\* H214 - Music Theory IV **Credits: 3**
- MUS\* H264 - Ear Training IV **Credits: 1**

### **TOTAL CREDITS: 60-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Visual and Performing Arts, Theater Arts (HC32)

The *Theater Arts Option* offers a challenging course of study for both the novice student and experienced theater artist. Through a combination of classroom training, production experience opportunities, and community service outreach, NVCC theater students develop a definite set of skills, knowledge, and values that lead to growth as individuals, artists, and future theater professionals. Ultimately, the NVCC theater program strives to develop the creative and intellectual potential in both arts and non-arts majors at the college. Graduate employment may include assistantships as directors, stage managers, theater technicians, box office managers, marketing coordinators, sound engineers, lighting assistants, or acting interns.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Demonstrate knowledge of historical events in film and theater.
2. Demonstrate the art of stage technology, costuming, set construction, and lighting.
3. Demonstrate specific performance skills in acting, including character analysis, blocking, interpretation, voice and diction.
4. Master the art of theatrical auditioning.
5. Develop a repertory of theatrical roles through participation in plays and theater events.
6. Develop an appreciation of world culture through the beauty and discipline of the art of theater.

### CURRICULUM

**Competency or Program Requirement:**

#### First Semester

#### **Aesthetic Dimensions/Written Communications Credits: 3**

- THR\* H101 - Introduction to Theater **Credits: 3**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Oral Communication Credits: 3**

- [Click here on the requirement name Oral Communications](#) to expand the list of courses then select any course listed preferably COM\* H100

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H135 - Topics in Contemporary Mathematics or higher than MAT\* H137

#### **Program Requirement**

- THR\* H110 - Acting I **Credits: 3**

#### Second Semester

#### **Social Phenomena Credits: 3**

- [Click here on the requirement name Social Phenomena](#) to expand the list of courses then select any course listed preferably ANT\* H101, PSY\* H111, or SOC\* H101

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed preferably ENG\* H102

### **Program Requirements**

- THR\* H210 - Acting II **Credits: 3**
- THR\* H120 - Stagecraft **Credits: 3**

### **Visual Arts Elective**

Choose one from

- ART\* H101 - Art History I **Credits: 3**
- ART\* H102 - Art History II **Credits: 3**
- ART\* H111 - Drawing I **Credits: 3**
- ART\* H121 - Two-Dimensional Design **Credits: 3**

### **Third Semester**

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed preferably DAN\* H175

### **Program Requirements**

- THR\* H190 - Theater Practicum I **Credits: 3**
- Music Elective Choose one from:
- MUS\* H101 - Music History & Appreciation I **Credits: 3**  
or
  - MUS\* H111 - Fundamentals of Music I **Credits: 3**  
or
  - MUS\* H173 - Class Voice **Credits: 1**  
or
  - MUS\* H183 - Applied Private Music Lessons I **Credits: 1**  
and
  - MUS\* H184 - Applied Private Music Lessons II **Credits: 2**

### **Fourth Semester**

#### **Continuing Learning and Information Literacy/Ethics Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed preferably DAT\* H101

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed preferably BIO\* H105

### **Program Requirements**

- THR\* H290 - Theater Practicum II **Credits: 3**
- Visual and Performing Arts Elective **Credits: 3**<sup>1</sup>

## Dance Elective

Choose one from

- DAN\* H101 - History & Appreciation of World Dance **Credits: 3**
- DAN\* H102 - Ballet I: Renaissance to Romantic **Credits: 3**
- DAN\* H111 - Jazz I: Afro-Caribbean/American **Credits: 3**
- DAN\* H113 - Modern I: Pioneers of America **Credits: 3**

## TOTAL CREDITS: 60-62

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Choose 6 credits from Visual and Performing Arts Electives list below.

## Visual and Performing Arts Electives

- ART\* H101 - Art History I **Credits: 3**
- ART\* H102 - Art History II **Credits: 3**
- ART\* H121 - Two-Dimensional Design **Credits: 3**
- ART\* H122 - Three-Dimensional Design **Credits: 3**
- ART\* H131 - Sculpture I **Credits: 3**
- ART\* H132 - Sculpture II **Credits: 3**
- ART\* H141 - Photography I
- ART\* H142 - Photography II
- ART\* H161 - Ceramics I **Credits: 3**
- ART\* H162 - Ceramics II **Credits: 3**
- ART\* H167 - Printmaking I **Credits: 3**
- DAN\* H101 - History & Appreciation of World Dance **Credits: 3**
- DAN\* H102 - Ballet I: Renaissance to Romantic **Credits: 3**
- DAN\* H111 - Jazz I: Afro-Caribbean/American **Credits: 3**
- DAN\* H112 - Jazz II: Broadway and Film **Credits: 3**
- DAN\* H113 - Modern I: Pioneers of America **Credits: 3**
- DAT\* H106 - Digital Design **Credits: 3**
- DAT\* H116 - Interactive Media Design **Credits: 3**
- DAT\* H212 - 3D Graphics & Animation I **Credits: 3**
- DAT\* H290 - Digital Arts Project **Credits: 3**
- GRA\* H150 - Introduction to Graphic Design **Credits: 3**
- MUS\* H101 - Music History & Appreciation I **Credits: 3**
- MUS\* H103 - American Music **Credits: 3**
- MUS\* H104 - World Music **Credits: 3**
- MUS\* H111 - Fundamentals of Music I **Credits: 3**
- MUS\* H153 - Class Instruction - Beginning Piano I **Credits: 1**
- MUS\* H158 - Chamber Music / Jazz Ensemble I **Credits: 2**
- MUS\* H163 - Ear Training I **Credits: 1**
- MUS\* H164 - Ear Training II **Credits: 1**
- MUS\* H173 - Class Voice **Credits: 1**
- MUS\* H176 - Gospel Choir
- MUS\* H179 - Opera Performance Ensemble
- MUS\* H183 - Applied Private Music Lessons I **Credits: 1**
- MUS\* H184 - Applied Private Music Lessons II **Credits: 2**
- MUS\* H206 - Introduction to Music Education
- MUS\* H208 - Introduction to Music Therapy

- MUS\* H213 - Music Theory III **Credits: 3**
- MUS\* H214 - Music Theory IV **Credits: 3**
- MUS\* H254 - Concert Band **Credits: 2**
- MUS\* H218 - Electronic Music Composition/Audio Technology I **Credits: 3**
- THR\* H225 - Directing **Credits: 3**
- THR\* H226 - Musical Theater Production **Credits: 3**
- THR\* H231 - Drama **Credits: 3**
- THR\* H295 - Theater Practicum III **Credits: 3**

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Visual and Performing Arts, Visual Art (HC28)

The **Visual Arts Option** provides training in art history, traditional two-dimensional methodologies (painting, drawing, design), three-dimensional formats (sculpture and pottery), and computerized graphic design. Students will be qualified to seek positions in galleries, museums, and theater productions.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Execute skills and techniques necessary for studio art, and demonstrate manipulative skills including dexterity with tools and equipment specific to various media.
2. Compile a portfolio of work reflecting the breadth of his/her study.
3. Demonstrate desirable attitudes and work habits - creative thinking, the ability to solve problems, good artistic judgment, industriousness, cooperation, responsibility, and self-reliance.
4. Describe a knowledge of the relationship among various components of art including design, drawing and painting, and understand the contributions that each makes to the final product.
5. Demonstrate an understanding of the process of mounting an exhibition of work and presenting it to the public.
6. Communicate clearly using specific art vocabulary.

### CURRICULUM

**Competency or Program Requirement:**

#### **First Semester**

#### **Critical Analysis and Logical Thinking/ Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Oral Communications Credits: 3**

- [Click here on the requirement name Oral Communications](#) to expand the list of courses then select any course listed preferably COM\* H100

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H135 - Topics in Contemporary Mathematics or higher than MAT\* H137

#### **Program Requirements**

- ART\* H111 - Drawing I **Credits: 3**
- ART\* H121 - Two-Dimensional Design **Credits: 3**

#### **Second Semester**

#### **Aesthetic Dimensions/Written Communications Credits: 3**

- ART\* H101 - Art History I **Credits: 3**

#### **Continuing Learning and Information Literacy/Ethics Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed preferably DAT\* H101

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed preferably ENG\* H102

### **Program Requirements**

- ART\* H112 - Drawing II Credits: 3
- ART\* H122 - Three-Dimensional Design Credits: 3

### **Third Semester**

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed preferably DAN\* H175

### **Program Requirements**

- ART\* H102 - Art History II Credits: 3
- ART\* H131 - Sculpture I Credits: 3
- ART\* H151 - Painting I Credits: 3

### **Fourth Semester**

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed preferably BIO\* H105

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed preferably ANT\* H101, PSY\* H111, or SOC\* H101

### **Program Requirements**

- ART\* H161 - Ceramics I Credits: 3
- ART\* H167 - Printmaking I Credits: 3
- Visual Art Elective Credits: 3<sup>1</sup>

### **TOTAL CREDITS: 60-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students should choose ART\* H132, ART\* H152, ART\* H162, DAT\* H102, or GRA\* H150.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## CSCU TRANSFER TICKET DEGREES

Transfer Ticket Degrees allow NVCC students to complete associate degree programs that transfer without hassle to all Connecticut State Universities and Charter Oak State College offering their major. For additional information regarding these programs, please see an NVCC advisor and review information at the CSCU Transfer Ticket Website at <http://www.ct.edu/transfer/tickets>. *Please note, Transfer Tickets do not include seamless transfer to the University of Connecticut.*

## Art Studies (HG21)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Creativity Credits: 3**

- ART\* H111 - Drawing I Credits:3

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits:3

##### **Program Requirement**

- Unrestricted Electives<sup>1</sup> - See advisor

#### Second Semester

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

##### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

##### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits:3
- or
- ENG\* H200 - Advanced Composition Credits:3

##### **Program Requirements**

- ART\* H101 - Art History I Credits: 3
- ART\* H121 - Two-Dimensional Design Credits: 3

#### Third Semester

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Social Phenomena Credits:3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Program Requirements**

- ART\* H102 - Art History II **Credits: 3**
- ART\* H122 - Three-Dimensional Design **Credits: 3**  
**or**
- ART\* H131 - Sculpture I **Credits: 3**
- Unrestricted Electives<sup>1</sup> - See advisor

### **Fourth Semester**

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Program Requirements**

- Select 3 courses, with no more than one course from each group 1-6:  
Group 1:
- ART\* H112 - Drawing II **Credits: 3**  
Group 2:
- ART\* H151 - Painting I **Credits: 3**  
Group 3:
- ART\* H167 - Printmaking I **Credits: 3**  
Group 4:
- ART\* H131 - Sculpture I **Credits: 3**  
**or**
- ART\* H161 - Ceramics I **Credits: 3**  
Group 5:
- GRA\*H111 - Computer Graphics  
**or**
- GRA\* H150 - Introduction to Graphic Design **Credits: 3**  
Group 6:
- DAT\* H102 - Introduction to Photography **Credits: 3**
- Unrestricted Electives<sup>1</sup> - See advisor

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students should consider beginning or completing work on foreign language requirements for CCSU, WCSU, ECSU & Charter Oak.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Biochemistry Studies (HG23)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### FIRST SEMESTER

##### Critical Analysis and Logical Thinking/Written Communication Credits: 3

- ENG\* H101 - Composition Credits: 3

##### Quantitative Reasoning Credits: 4

- MAT\* H186 - Precalculus Credits: 4

##### Scientific Reasoning Credits: 4

- CHE\* H121 - General Chemistry I Credits: 4

##### Aesthetic Dimensions/Written Communication Credits: 3

- [Click here on the requirement name Aesthetic Dimensions/Written Communication](#) to expand the list of courses then select any listed

#### SECOND SEMESTER

##### Scientific Knowledge and Understanding Credits: 4

- CHE\* H122 - General Chemistry II Credits: 4

##### Written Communication Credits: 3

- [Click here on the requirement name Written Communication](#) to expand the list of courses then select any course listed

##### Program Requirements

- BIO\* H121 - General Biology I - Cellular Biology Credits: 4
- MAT\* H254 - Calculus I Credits: 4

#### THIRD SEMESTER

##### Social Phenomena Credits: 3

- [Click here on the requirement name Social Phenomena](#) to expand the list of courses then select any course listed

##### Program Requirements

- PHY\* H221 - Calculus-Based Physics I Credits: 4
- CHE\* H211 - Organic Chemistry I Credits: 4
- BIO\* H235 - Microbiology Credits: 4

#### FOURTH SEMESTER

##### Oral Communications Credits: 3

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Program Requirements**

- CHE\* H212 - Organic Chemistry II **Credits: 4**
- Unrestricted Elective **\*\* Credits: 3**

**\*\* Recommended:** BIO 122 General Biology II or PHY 222 Calculus-Based Physics II is recommended for this open elective with the following considerations:

PHY 222 is required at CCSU, ECSU, WCSU

BIO 122 is required at WCSU

If you complete both sequences at the community college and transfer to WCSU, both sequences will be accepted at WCSU and you will have 4 fewer credits to complete at WCSU after transfer. If you know you are transferring to SCSU, you may decide not to use this open elective for PHY 222 or BIO 122. Also see the additional note about open electives below.

**\*\*You are free to choose any courses at or above 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University does not require that you complete a minor with this major. You can also complete other General Education requirements for CCSU, SCSU, WCSU, and COSC-but not ECSU. You are encouraged to meet with your advisor to determine which courses to select.**

### **TOTAL CREDIT HOURS: 60**

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Biology Studies (HG01)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Quantitative Reasoning Credits: 3-4**

- MAT\* H185 - Trigonometric Functions Credits: 3  
or
- MAT\* H186 - Precalculus Credits: 4

#### **Scientific Knowledge and Understanding Credits: 4**

- CHE\* H121 - General Chemistry I Credits: 4

#### **Scientific Reasoning Credits: 4**

- BIO\* H121 - General Biology I - Cellular Biology Credits: 4

#### Second Semester

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

#### **Program Requirements**

- BIO\* H122 - General Biology II - Organismal Biology Credits: 4 (spring only)
- CHE\* H122 - General Chemistry II Credits: 4 (spring only)
- MAT\* H254 - Calculus I Credits: 4

#### Third Semester

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Program Requirements**

- Any 200 level BIO laboratory course
- PHY\* H121 - General Physics I Credits: 4  
or
- CHE\* H211 - Organic Chemistry I Credits: 4 <sup>1</sup>

#### Fourth Semester

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Program Requirements**

- Any 200 level BIO laboratory course
- PHY\* H122 - General Physics II **Credits: 4**  
or
- CHE\* H212 - Organic Chemistry II **Credits: 4** <sup>1</sup>

### **TOTAL CREDITS: 60-61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Not currently offered at NVCC. This course is offered at Tunxis, Gateway, WCSU, CCSU and SCSU.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Business Studies (HG12)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics Credits: 3 <sup>1,3</sup>

#### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3 <sup>1,3</sup>

#### **Program Requirement**

- ACC\* H113 - Principles of Financial Accounting Credits: 3 <sup>1,3</sup>

#### Second Semester

#### **Global Knowledge Credits: 3**

- ECN\* H102 - Principles of Microeconomics Credits: 3

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

#### **Program Requirements**

- ACC\* H117 - Principles of Managerial Accounting Credits: 3 <sup>2,3</sup>
- MAT\* H158 - Functions, Graphs, and Matrices Credits: 3  
or
- MAT\* H232 - Applied Calculus Credits: 3  
or
- MAT\* H254 - Calculus I Credits: 4

#### Third Semester

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **Program Requirements**

- BBG\* H210 - Business Communication **Credits: 3**
- BMK\* H201 - Principles of Marketing **Credits: 3**<sup>2</sup>

### **Fourth Semester**

### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

### **Program Requirements**

- BBG\* H231 - Business Law I **Credits: 3**<sup>2</sup>
- BMG\* H202 - Principles of Management **Credits: 3**<sup>2</sup>
- BFN\* H201 - Principles of Finance **Credits: 3**<sup>2</sup>
- General Elective (any 100 level or above)

### **TOTAL CREDITS: 60-61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Must earn a C- or above in these courses.

<sup>2</sup> Must earn a C or above in these courses.

<sup>3</sup> Must earn a cumulative 2.5 or above in these 6 courses. Guaranteed admission into a State University or Charter Oak requires an overall 2.0 GPA (2.5 for Central CT State University)

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Chemistry Studies (HG02)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits:3**

- ENG\* H101 - Composition Credits: 3

#### **Quantitative Reasoning Credits:3**

- MAT\* H254 - Calculus I Credits: 4

#### **Scientific Knowledge and Understanding Credits: 4**

- CHE\* H121 - General Chemistry I Credits: 4

#### **Program Requirement**

- Choose any credit-bearing course<sup>1</sup>

#### Second Semester

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits:4**

- CHE\* H122 - General Chemistry II Credits: 4

#### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

#### **Program Requirement**

- MAT\* H256 - Calculus II Credits: 4

#### Third Semester

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Program Requirements**

- CHE\* H211 - Organic Chemistry I **Credits: 4** <sup>2</sup>
- PHY\* H221 - Calculus-Based Physics I **Credits: 4** <sup>3</sup>
- Choose any credit-bearing course<sup>1</sup>

### **Fourth Semester**

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Program Requirements**

- CHE\* H212 - Organic Chemistry II **Credits: 4** <sup>2</sup>
- PHY\* H222 - Calculus-Based Physics II **Credits: 4** <sup>3</sup>
- Choose any credit-bearing course<sup>1</sup>

#### **TOTAL CREDITS: 62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> If student is not MAT\* H254 - Calculus I-ready, use general electives for courses such as MAT\* H137 - Intermediate Algebra, MAT\* H172 - College Algebra and MAT\* H185 - Trigonometric Functions, or MAT\* H186 - Precalculus.

<sup>2</sup> Not currently offered at NVCC. This course is offered at Tunxis, Gateway, WCSU, CCSU and SCSU.

<sup>3</sup> PHY\* H221 and PHY\* H222 are offered in fall and spring semesters, respectively. PHY\* H221 and PHY\* H222 are also offered in Special Session I and Special Session II during the summer, respectively. PHY\* H221 and PHY\* H222 must be taken for the American Chemical Society approved Bachelor's degree

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Communication Studies (HG03)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### General Education Elective

Click on the General Education Category below to expand the list and select one course from each category to meet the requirements.

- Creativity
- Global Knowledge

#### Program Requirement

- COM\* H173 - Public Speaking **Credits: 3**
- COM\* H101 - Introduction to Mass Communications **Credits: 3**
  
- COM\* H172 - Interpersonal Communication **Credits: 3**  
or
- COM\* H226 - Journalism I **Credits: 3**
  
- COM Elective (excluding COM\* H100)
- COM Elective (excluding COM\* H100)
- Free Elective <sup>1</sup>
- Free Elective <sup>1</sup>
- Free Elective <sup>1</sup>

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

##### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed preferably COM\* H173

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students completing 3 years of modern language in high school may substitute 6 credits of General Electives. Note: Some 4-year colleges may require a language proficiency exam. Students should consider beginning or completing work on foreign language requirements for CCSU, WCSU, ECSU & Charter Oak.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Computer Science Studies (HG13)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirement

- CSC\* H113 - Programming I Credits: 3 <sup>2</sup>
- CSC\* H229 - Programming II Credits: 3 <sup>2</sup>
- MAT\* H254 - Calculus I Credits: 4 <sup>2</sup>
- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed
- CSC\* H231 - Database Design I Credits: 3 <sup>2</sup>
- MAT\* H256 - Calculus II Credits: 4 <sup>3</sup>
- CSC\* H227 - Web Programming with Java Credits: 3
- EET\* H252 - Digital Electronics Credits: 4 <sup>3</sup>
- MAT\* H210 - Discrete Math Credits: 3 <sup>2</sup>

#### Competency Requirement

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

- MAT\* H186 - Precalculus Credits: 4

#### **Scientific Knowledge and Understanding Credits: 4**

Choose one:

- BIO\* H122 - General Biology II - Organismal Biology Credits: 4<sup>1</sup>
- or
- CHE\* H122 - General Chemistry II Credits: 4<sup>1</sup>
- or
- PHY\* H222 - Calculus-Based Physics II Credits: 4<sup>1</sup>

#### **Scientific Reasoning Credits: 4**

Choose one:

- BIO\* H121 - General Biology I - Cellular Biology Credits: 4<sup>1</sup>  
or
- CHE\* H121 - General Chemistry I Credits: 4<sup>1</sup>  
or
- PHY\* H221 - Calculus-Based Physics I Credits: 4<sup>1</sup>

### **Written Communication Credits: 3**

- [Click here on the requirement name Written Communication](#) to expand the list of courses then select any course listed

### **TOTAL CREDITS: 60**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> You must choose the second course in the sequence you began in the first semester; choose from:

BIO\* H121 ► BIO\* H122 - General Biology II - Organismal Biology Credits: 4

CHE\* H121 ► CHE\* H122 - General Chemistry II Credits: 4

PHY\* H221 ► PHY\* H222 - Calculus-Based Physics II Credits: 4

<sup>2</sup> Must earn a C or above on these courses.

See Engineering Department to discuss waive of prerequisites for EET\* H252 - Digital Electronics agreement on this for Pathway Transfer students.

<sup>3</sup> Must earn a C- or above on these courses.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Criminology Studies (HG04)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirements

- CJS\* H101 - Introduction to Criminal Justice **Credits: 3**
- CJS\* H102 - Introduction to Corrections **Credits: 3**
- CJS\* H105 - Introduction to Law Enforcement **Credits: 3**

Choose one:

- CJS\* H210 - Constitutional Law **Credits: 3**  
**or**
- CJS\* H217 - American Legal Systems **Credits: 3**
- SOC\* H240 - Criminology **Credits: 3**
- PSY\* H111 - General Psychology I **Credits: 3** (General Elective)
- Choose any Creativity or Global Knowledge course
- Unrestricted Electives <sup>1</sup>

#### Choose One Between:

- CJS\* H211 - Criminal Law I **Credits: 3**
- CJS\* H220 - Criminal Investigation **Credits: 3**
- CJS\* H225 - Forensic Science **Credits: 3**
- CJS\* H280 - Victimology **Credits: 3**
- CJS\* H293 - Criminal Justice Cooperative Work Experience **Credits: 3**

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication**

- ENG\* H101 - Composition Credits: 3

##### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics Credits: 3

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- SOC\* H101 - Principles of Sociology Credits: 3

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students should consider beginning or completing work on foreign language requirements not already met in high school and beginning work on minor requirements of some CSUs. They may also complete other General Education requirements for CCSU, WCSU, SCSU and Charter Oak (not ECSU).

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Early Childhood Teacher Credential Studies (HG14)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

##### **Aesthetic Dimensions/Written Communications Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

##### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I **Credits: 3**

##### **Program Requirement**

- ECE\* H101 - Introduction to Early Childhood Education **Credits: 3**

#### Second Semester

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

##### **Program Requirements**

**Must be completed before ECE\* H290 and ECE\* H291.**

- ECE\* H103 - Creative Experiences for Children **Credits: 3**
- ECE\* H106 - Music and Movement for Children **Credits: 3**
- ECE\* H176 - Health, Safety and Nutrition **Credits: 3**
- ECE\* H231 - Early Language and Literacy Development **Credits: 3**

#### Third Semester

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

##### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

##### **Program Requirements**

- ECE\* H210 - Observation, Participation and Seminar **Credits: 3**
- ECE\* H290 - Student Teaching I **Credits: 3**
- PSY\* H203 - Child Development **Credits: 3** (Must be completed before ECE\* H215)

### **Fourth Semester**

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

#### **Program Requirements**

- ECE\* H215 - The Exceptional Learner **Credits: 3**
- ECE\* H291 - Student Teaching II **Credits: 3**

#### **TOTAL CREDITS: 61-62**

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BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Economics Studies (HG25)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### FIRST SEMESTER

##### Critical Analysis and Logical Thinking/Written Communication Credits: 3

- ENG\* H101 - Composition Credits: 3

##### Social Phenomena Credits: 3

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

##### Historical Knowledge and Understanding Credits: 3

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### Aesthetic Dimensions/Written Communication Credits: 3

- Click here on the requirement name Aesthetic Dimensions/Written Communication /Written Communication to expand the list of courses then select any listed

##### Program Requirements

Unrestricted Elective Credits: 3

#### SECOND SEMESTER

##### Quantitative Reasoning Credits: 3

- MAT\* H232 - Applied Calculus Credits: 3

##### Written Communication Credits: 3

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

##### Scientific Reasoning Credits: 3-4

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

##### Program Requirements

- Unrestricted Elective Credits: 3
- ECN\* H101 - Principles of Macroeconomics Credits: 3

#### THIRD SEMESTER

##### Scientific Knowledge and Understanding Credits: 3-4

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **General Education Creativity Credits: 3**

- Click here on the General Education Creativity to expand the list and select one course from the category to meet the requirement. ECN 101 and ECN 102 cannot be used to fulfill this requirement.

### **Program Requirements**

- Unrestricted Elective **Credit: 3**
- MAT\* H167 - Principles of Statistics **Credits: 3**
- ECN\* H102 - Principles of Microeconomics **Credits: 3**

## **FOURTH SEMESTER**

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **General Education Global Knowledge Credits: 3**

- Click here on the General Education Global Knowledge to expand the list and select one course from the category to meet the requirement. ECN 101 and ECN 102 cannot be used to fulfill this requirement.

### **Remaining Unrestricted Elective Credits: 6-8**

- Unrestricted Electives

## **TOTAL CREDITS: 60**

Unrestricted Electives:

\*You are free to choose any courses at or above 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field; you must complete 9 of those minor credits at Central. You can also complete other General Education requirements for CCSU, SCSU, WCSU, and COSC - but not ECSU. You are encouraged to meet with your advisor to determine which courses to select.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## English Studies (HG05)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirement

Choose one:

- ENG\* H241 - World Literature I **Credits: 3**
- **or**
- ENG\* H242 - World Literature II **Credits: 3**

Choose one:

- ENG\* H221 - American Literature I **Credits: 3**<sup>1</sup>
- **or**
- ENG\* H231 - British Literature I **Credits: 3**<sup>1</sup>

Choose one:

- ENG\* H222 - American Literature II **Credits: 3**<sup>1</sup>
- **or**
- ENG\* H232 - British Literature II **Credits: 3**<sup>1</sup>

- Click here on the requirement name Creativity to expand the list of courses then select any course listed **Credits: 3**
- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed **Credits: 3**
- Free Elective **Credits: 3**<sup>2</sup>

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

##### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3  
or
- ENG\* H200 - Advanced Composition Credits: 3

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Must complete one American and one British Literature course.

<sup>2</sup> Students should consider beginning or completing work on foreign language requirements for CCSU, WCSU, ECSU & Charter Oak.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## French Studies (HG16)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Program Requirements**

- FRE\* H101 - Elementary French I **Credits: 3**
- Unrestricted Electives - See advisor **Credits: 3**

#### Second Semester

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

##### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

##### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

##### **Program Requirements**

- FRE\* H102 - Elementary French II **Credits: 3**
- Unrestricted Electives **Credits: 3** - See advisor

#### Third Semester

##### **Creativity Credits: 3**

- Click here on the requirement name Creativity to expand the list of courses then select any course listed

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Program Requirements**

- FRE\* H201 - Intermediate French I **Credits: 3**
- Unrestricted Electives **Credits: 3** - See advisor

### **Fourth Semester**

### **Global Knowledge Credits: 3**

- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed

### **Historical Knowledge and Understanding Credits:3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Oral Communication Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Program Requirements**

- FRE\* H202 - Intermediate French II **Credits: 3**
- Unrestricted Electives **Credits: 3** - See advisor

### **TOTAL CREDITS: 61-62**

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BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## History Studies (HG06)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirement

- HIS\* H201 - U.S. History I **Credits: 3**
- HIS\* H202 - U.S. History II **Credits: 3**
- Click here on the requirement name Creativity to expand the list of courses then select any course listed **Credits: 3**
- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed **Credits: 3**
- Free Elective **Credits: 3**

#### Competency Requirement

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed with the exception of HIS\* H201 or HIS\* H202

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed preferably BIO\* H105

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition **Credits: 3**  
or
- ENG\* H200 - Advanced Composition **Credits: 3**

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Italian Studies (HG18)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Program Requirements**

- ITA\* H101 - Elementary Italian I **Credits: 3**
- General Elective **Credits: 3**

#### Second Semester

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then selected any course listed

##### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

##### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

##### **Program Requirements**

- ITA\* H102 - Elementary Italian II **Credits: 3**
- General Elective **Credits: 3**

#### Third Semester

##### **Creativity Credits: 3**

- Click here on the requirement name Creativity to expand the list of courses then select any course listed

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Program Requirements**

- ITA\* H201 - Intermediate Italian I **Credits: 3**
- General Elective **Credits: 3**

### **Fourth Semester**

### **Global Knowledge Credits:3**

- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Program Requirements**

- ITA\* H202 - Intermediate Italian II **Credits: 3**
- General Elective **Credits: 3**

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Mathematics Studies (HG07)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Quantitative Reasoning Credits: 3**

- MAT\* H185 - Trigonometric Functions Credits: 3 <sup>1</sup>  
or
- MAT\* H186 - Precalculus Credits: 3 <sup>1</sup>

#### **Program Requirement**

- Choose any unrestricted elective any credit bearing course Credits: 3 <sup>2</sup>

#### Second Semester

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

#### **Program Requirements**

- MAT\* H254 - Calculus I Credits: 4 <sup>1</sup>
- CSC\* H113 - Programming I Credits: 3  
or
- CSC\* H205 - VISUAL BASIC I Credits: 3

#### Summer Semester

#### **Program Requirement**

- MAT\* H256 - Calculus II Credits: 4 <sup>1</sup>

#### Third Semester

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

### **Scientific Knowledge and Understanding Credits:3-4**

- Introductory Science Course Sequence **Credits:** 3-4 <sup>3</sup>

### **Program Requirements**

- MAT\* H268 - Calculus III: Multivariable **Credits:** 4 (fall only)<sup>3</sup>
- Choose any unrestricted elective any credit bearing course **Credits:** 3-4 <sup>2</sup>

### **Fourth Semester**

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 4**

- Introductory Science Course Sequence **Credits:** 3 <sup>3</sup>

### **Program Requirement**

- Math Elective **Credits:** 3-4 <sup>4</sup>
- Choose any unrestricted elective - any credit bearing course **Credits:** 3-4 <sup>2</sup>

### **TOTAL CREDITS: 60**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> If student is MAT\* H254 - Calculus I-ready, student should enroll in MAT\* H254 - Calculus I in 1st semester and MAT\* H256 - Calculus II in 2nd semester. If student is not MAT\* H185 or MAT\* H186-ready, use unrestricted electives to take MAT\* prerequisite courses, e.g. MAT\* H137 or MAT\* H172.

<sup>2</sup> 8-10 credits to reach 60 total program credits. Amount needed depends on choice of MAT\* H185 or MAT\* H186 and Math Elective.

<sup>3</sup> Choose from :

BIO\* H121 & BIO\* H122 **OR**

BIO\* H155 & BIO\* H145 (SCSU transfer only) **OR**

CHE\* H121 and CHE\* H122 **OR**

PHY\* H121 and PHY\* H122 **OR**

PHY\* H221 and PHY\* H222

<sup>4</sup> Choose from MAT\*H274 - Linear Algebra, MAT\* H285 - Differential Equations or MAT\* H287 - Foundations of Mathematics.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Physics Studies (HG19)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Quantitative Reasoning Credits: 4**

- MAT\* H254 - Calculus I Credits: 4

#### **Scientific Reasoning Credits: 4**

- CHE\* H121 - General Chemistry I Credits: 4

#### **Program Requirement**

- General Elective Credits: 3 <sup>1</sup>

#### Second Semester

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 4**

- CHE\* H122 - General Chemistry II Credits: 4

#### **Program Requirements**

- MAT\* H256 - Calculus II Credits: 4
- PHY\* H221 - Calculus-Based Physics I Credits: 4 <sup>2</sup>

#### Third Semester

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any listed

#### **Program Requirements**

- MAT\* H268 - Calculus III: Multivariable Credits: 4

- PHY\* H222 - Calculus-Based Physics II **Credits: 4**<sup>2</sup>

### **Fourth Semester**

#### **Creativity Credits: 3**

- Click here on the requirement name Creativity to expand the list of courses then select any course listed

#### **Global Knowledge Credits: 3**

- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

#### **Program Requirement**

- MAT\* H285 - Differential Equations **Credits: 3**

#### **TOTAL CREDITS: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> If you have not taken Physics in high School, you should use this elective to take PHY\* H110 - Introductory Physics.

<sup>2</sup> PHY\* H221 and PHY\* H222 are offered in fall and spring semesters, respectively. PHY\* H221 and PHY\* H222 are also offered in Special Session I and Special Session II during the summer, respectively.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Political Science Studies (HG08)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirement

- POL\* H111 - American Government **Credits: 3**
- Choose any Political Science listed **Credits: 3**
- Choose any Political Science listed **Credits: 3**
- Click here on the requirement name Creativity to expand the list of courses then select any course listed **Credits: 3**
- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed **Credits: 3**
- Free Elective **Credits: 3**<sup>1</sup>

#### Competency Requirement

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students who have taken MAT\* H185 should take 9 credits, and students taking MAT\* H186 should take 8 credits. Students should consider beginning or completing work on foreign language requirements not already met in high school and beginning work on minor requirements of some CSUs. They may also complete other State University General Education requirements.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Psychology Studies (HG09)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirement

- PSY\* H111 - General Psychology I **Credits: 3** (may be used to fulfill Social Phenomena above, thereby adding 3 credits of unrestricted electives)
- PSY\* H245 - Abnormal Psychology **Credits: 3**
- Click here on the requirement name Creativity to expand the list of courses then select any course listed **Credits: 3**
- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed **Credits: 3**
- Free Electives **Credits: 9-12** <sup>1</sup>

#### Choose Two of the Following:

- PSY\* H240 - Social Psychology **Credits: 3**
- PSY\* H243 - Theories of Personality **Credits: 3**
- PSY\* H247 - Industrial & Organizational Psychology **Credits: 3**

#### Choose One of the Following:

- PSY\* H201 - Lifespan Development **Credits: 3**
- PSY\* H203 - Child Development **Credits: 3**
- PSY\* H204 - Child & Adolescent Development **Credits: 3**
- PSY\* H206 - Adolescence & Adulthood Development **Credits: 3**

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

##### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics **Credits: 3**

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding **OR** Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding **OR** Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>2</sup> Students who have taken MAT\* H185 should take 9 credits, and students taking MAT\* H186 should take 8 credits. Students should consider beginning or completing work on foreign language requirements not already met in high school and beginning work on minor requirements of some CSUs. They may also complete other State University General Education requirements.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Social Work Studies (HG10)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirement

- HSE\* H101 - Introduction to Human Services **Credits: 3**
- POL\* H111 - American Government **Credits: 3**
- PSY\* H111 - General Psychology I **Credits: 3**
- ANT\* H205 - Cultural Anthropology **Credits: 3**
- SOC\* H201 - Contemporary Social Issues **Credits: 3**
- Click here on the requirement name Creativity to expand the list of courses then select any course listed **Credits: 3**
- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed **Credits: 3**
- Unrestricted Electives **Credits: 3-6**<sup>1</sup>

Choose One or Two of the Following:

- HSE\* H202 - Introduction to Counseling and Interviewing **Credits: 3**
- HSE\* H281 - Human Services Field Work I **Credits: 3**

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

##### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics **Credits: 3**

##### **Scientific Knowledge and Understanding Credits: 4**

- BIO\* H115 - Human Biology & Lab **Credits: 4**

##### **Scientific Reasoning Credits: 3-4**

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

**Social Phenomena Credits: 3**

- SOC\* H101 - Principles of Sociology **Credits: 3**

**Written Communication Credits: 3**

- [Click here](#) on the requirement name Written Communication to expand the list of courses then select any course listed

**TOTAL CREDITS: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students should consider beginning or completing work on foreign language requirements not already met in high school and beginning work on minor requirements of some CSUs. They may also complete other State University General Education requirements.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Sociology Studies (HG11)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

#### Program Requirement

- SOC\* H101 - Principles of Sociology **Credits: 3**
- Any sociology course **Credits: 3** (except SOC\* H101)
- Any 200 level sociology course **Credits: 3**
- Any 200 level sociology course **Credits: 3**
- Click here on the requirement name Creativity to expand the list of courses then select any course listed **Credits: 3**
- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed **Credits: 3**
- Free Elective **Credits: 3**<sup>1</sup>

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

##### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics **Credits: 3**

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

##### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students who have taken MAT\* H185 should take 9 credits, and students taking MAT\* H186 should take 8 credits. Students should consider beginning or completing work on foreign language requirements not already met in high school and beginning work on minor requirements of some CSUs. They may also complete other State University General Education requirements.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Spanish Studies (HG20)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Program Requirements**

- SPA\* H101 - Elementary Spanish I **Credits: 3**
- General Elective **Credits: 3**

#### Second Semester

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

##### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

##### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

##### **Program Requirements**

- SPA\* H102 - Elementary Spanish II **Credits: 3**
- General Elective **Credits: 3**

#### Third Semester

##### **Creativity Credits: 3**

- Click here on the requirement name Creativity to expand the list of courses then select any course listed

##### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Program Requirements**

- SPA\* H201 - Intermediate Spanish I **Credits: 3**
- General Elective **Credits: 3**

### **Fourth Semester**

### **Global Knowledge Credits: 3**

- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Program Requirements**

- SPA\* H202 - Intermediate Spanish II **Credits: 3**
- General Elective **Credits: 3**

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Theatre Studies (HG22)

General education core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. **In order to graduate and be guaranteed admission to a CT State University or to Charter Oak State College, you must earn an overall 2.0 GPA.**

### CURRICULUM

Competency or Program Requirement:

#### First Semester

##### **Creativity Credits: 3**

- THR\* H110 - Acting I Credits: 3

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

##### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

##### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

##### **Program Requirement**

- THR\* H102 - Theater History I Credits: 3

#### Second Semester

##### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

##### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

##### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

##### **Program Requirements**

- THR\* H120 - Stagecraft Credits: 3
- General Elective Credits: 3<sup>1</sup> - See Advisor

#### Third Semester

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Program Requirements**

- THR\* H112 - Voice and Diction **Credits: 3**
- General Elective **Credits: 3**<sup>1</sup> - See Advisor

### **Fourth Semester**

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Global Knowledge Credits: 3**

- Click here on the requirement name Global Knowledge to expand the list of courses then select any course listed

### **Program Requirements**

- THR\* H210 - Acting II **Credits: 3**
- General Elective **Credits: 3**<sup>1</sup> - See Advisor
- General Elective **Credits: 3**<sup>1</sup> - See Advisor

### **TOTAL CREDITS: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students should consider beginning or completing work on foreign language requirements for CCSU, WCSU, ECSU, & Charter Oak.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## **ASSOCIATE IN SCIENCE**

## Accounting (HA03)

As society becomes more complex, trained personnel are needed to interpret and manage the fiscal aspects of business and industry. The curriculum is designed either as a transfer or career program. Career-oriented students are prepared for beginning positions in public and private accounting. Typical positions for which graduates are qualified include: junior account clerk, assistant\*auditor, cost accounting clerk, and assistant office manager.

Students who plan to transfer to a four-year business program are urged to see a counselor or the division director for guidance regarding the transferability of courses to the four-year program. Courses listed under Naugatuck Valley's business programs may not automatically transfer to a four-year college.

Students also have the opportunity to join the Accounting/Finance Club.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

## PROGRAM OUTCOMES

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

1. Demonstrate the use of the concepts and techniques of generally accepted accounting principles in the recording and reporting of financial information.
2. Describe accounting system procedures and techniques.
3. Analyze and use financial reports for decisionmaking.
4. Explain the use of financial information in controlling and evaluating performance.
5. Use the vocabulary of financial and managerial accounting and economics for communicating.
6. Explain how budgeting, activity-based costing and strategic cost management foster the effective use of resources and help an organization accomplish its goals.
7. Use computerized spreadsheets and accounting software.
8. Apply basic knowledge from history, social sciences, behavioral sciences, arts, literature and science to create solutions to problems that they have not encountered before.
9. Demonstrate reasoning and analytic skills.
10. Work with others, including culturally and intellectually diverse peoples.
11. Demonstrate the ability to acquire, organize and present information effectively, regardless of medium - written, spoken or electronic.
12. Show how organizational dynamics, socio-political and economic environments shape the creation of solutions.
13. Display the traits and attitudes that promote ongoing success and a strong work ethic.

## CURRICULUM

### Program Requirements

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**
- BBG\* H210 - Business Communication **Credits: 3**
- BBG\* H232 - Business Law II **Credits: 3**
- ACC\* H271 - Intermediate Accounting I **Credits: 3**
- ACC\* H272 - Intermediate Accounting II **Credits: 3**
- ECN\* H102 - Principles of Microeconomics **Credits: 3**
- Directed Elective in Accounting, Business, or Computers<sup>1</sup>

### Competency Requirement

### **Aesthetic Dimensions/Written Communications Credits: 3**

- Click here on the requirement name [Aesthetic Dimensions/Written Communication](#) to expand the list of courses then select any listed

### **Continuing Learning and Information Literacy/Ethics Credits: 3**

- CSC\* H101 - Introduction to Computers Credits: 3

### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

### **Historical Knowledge Credits: 3**

- BBG\* H231 - Business Law I Credits: 3

### **Oral Communications Credits: 3**

- Click here on the requirement name [Oral Communications](#) to expand the list of courses then select any course listed

### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics Credits: 3

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name [Scientific Knowledge and Understanding](#) to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name [Scientific Reasoning](#) to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3

### **Written Communication Credits: 3**

- Click here on the requirement name [Written Communication](#) to expand the list of courses then select any course listed with the exception of ENG\* H101 Credits: 3

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Selection of Finance courses should be made in consultation with Accounting faculty advisor.

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Automotive Technician (HA24)

The ASE Certified Master Automotive Technician Program is a course of study designed to accommodate both full and part-time students, culminating in an Associate of Science degree. Service of today's complex automobiles requires highly trained technicians who have mastered a wide range of talents and skills. Naugatuck Valley Community College, in cooperation with the National Automotive Dealership Association, the U.S. Department of Labor, local, and national dealership associations, and the major automotive manufacturers, developed the Automotive Technician Program to meet the longstanding need for skilled automotive service technicians.

Students wishing to enroll in the Automotive Technician Program must demonstrate basic mathematics, written English, reading, and mechanical competency as determined by the College Placement Tests. Individuals interested in the Automotive Technician Program should contact the Program Coordinator or the Admissions Office. Students may be admitted to the College prior to admission to the program. The instruction, course of study, facilities, and equipment of Naugatuck Valley Community College, has been evaluated by the Automotive Service Excellence (ASE) Education Foundation and has met the National Institute for Automotive Service Excellence (ASE) standards of quality for the training of automotive technicians as a Master Automotive Technician Training Certification Program. These organizations can be contacted as follows: ASE, 13505 Dulles Technology Dr., Suite 2 • Hemdon, VA 20171-3413, ASE, 13505 Dulles Technology Dr., Suite 2 • Hemdon, VA 20171-3413.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Apply Language Arts and Communications skills related to the occupation, including but not limited to: reading, writing, and oral communication.
2. Perform Mathematics related to the occupation, including but not limited to: algebraic expressions, arithmetic, decimals and graphs.
3. Use scientific methods and critical thinking to solve problems in Science related to the occupation, including but not limited to: electricity, chemical reactions, heat motion, and hydraulics.
4. Demonstrate Workplace Skills related to the occupation, including but not limited to, preparing a resume, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics and teamwork.
5. Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
6. Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
7. Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
8. Apply knowledge of general engine diagnosis and repair, including but not limited to the engine's: cylinder heads, valve train, block, lubrication, and cooling system.
9. Apply knowledge of general transmission and transaxle maintenance, adjustment, diagnosis and repair.
10. Apply knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment and repair.
11. Apply knowledge of general disc and/or drum brake system hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment diagnosis and repair.
12. Apply knowledge of general electrical/electronic systems, including but not limited to: starting, charging, lighting, wiring, accessories, diagnosis and repair.
13. Apply knowledge of general heating and air conditioning systems and their components, maintenance, adjustment, diagnosis and repair.
14. Apply knowledge of general engine performance, including but not limited to: computer controls, ignition, fuel, exhaust, and emission systems, and their maintenance, diagnosis, adjustments and repair.
15. Apply knowledge of computer applications including word processing, spreadsheets, graphs and other software related to the occupation.

### CURRICULUM

## **Program Requirements**

- ATP\* H100 - Integrated Automotive Systems **Credits: 3**
- ATP\* H110 - Automotive Electrical Systems **Credits: 3**
- ATP\* H120 - Engine Repair **Credits: 3**
- ATP\* H130 - Brakes **Credits: 3**
- ATP\* H140 - Automotive Heating and Air Conditioning **Credits: 3**
- ATP\* H150 - Suspension and Steering **Credits: 3**
- ATP\* H185 - Automotive Service and Parts Department Management **Credits: 2**

Choose one:

- ATP\* H190 - Metallurgy/Welding **Credits: 2**  
**or**
- ATP Course Approved by Coordinator
  
- ATP\* H210 - Engine Performance **Credits: 3**
- ATP\* H220 - Automotive Emissions **Credits: 3**
- ATP\* H261 - Manual Drive Train and Axles **Credits: 2**
- ATP\* H262 - Automatic Transmission and Transaxle I **Credits: 2**
- ATP\* H290 - Cooperative Work Experience I **Credits: 3**
- ATP\* H291 - Cooperative Work Experience II **Credits: 3**

## **Competency Requirement**

### **Aesthetic Dimensions/Written Communication Credits: 0**

- Exempt

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

Choose one:

- CSA\* H105 - Introduction to Software Applications Credits: 3
- or**
- CSC\* H101 - Introduction to Computers Credits: 3

### **Critical Analysis and Logical Thinking/Written Communication Credits:3**

- ENG\* H101 - Composition Credits: 3

### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I Credits: 3

### **Oral Communications Credits: 3**

- [Click here on the requirement name Oral Communications to expand the list of courses then select any course listed](#)

### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

Choose one:

- MAT\* H121 - Applications for Business and Other Careers Credits: 3
- MAT\* H135 - Topics in Contemporary Mathematics Credits: 3
- MAT\* H167 - Principles of Statistics Credits: 3

### **Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- PHY\* H110 - Introductory Physics Credits: 4

**Scientific Reasoning Credits: 0**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Waived

**Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3

**Written Communication Credits: 3**

- [Click here](#) on the requirement name Written Communication to expand the list of courses then select any course listed

**TOTAL CREDITS: 63**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Automotive Technician, Management (HC23)

The complexity of the automobile requires more sophisticated technicians and specialists than ever before. The need for qualified personnel has expanded beyond the bay into service and shop management. Until now students had to decide whether to take the Automotive Technician Program Degree or a Business Degree if they aspired towards Automotive Management. The Management Option creates a sensible way for employers to fill management positions.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Apply Language Arts and Communications skills related to the occupation, including but not limited to: reading, writing, and oral communication.
2. Perform Mathematics related to the occupation, including but not limited to: algebraic expressions, arithmetic, decimals and graphs.
3. Use scientific methods and critical thinking to solve problems in Science related to the occupation, including but not limited to: electricity, chemical reactions, heat, motion, and hydraulics.
4. Demonstrate Workplace Skills related to the occupation, including but not limited to, preparing a resume, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics and teamwork.
5. Apply knowledge of Computer Applications including word processing, spreadsheets, graphs and other software related to the occupation.
6. Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
7. Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
8. Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
9. Apply knowledge of general engine diagnosis and repair, including but not limited to the engines: cylinder heads, valve train, block, lubrication, and cooling system .
10. Apply knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment and repair.
11. Apply knowledge of general disc and/or drum brake system, hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment, diagnosis, and repair.
12. Apply knowledge of general electrical/electronic systems, including but not limited to: starting, charging, lighting, wiring, accessories, diagnosis and repair.
13. Demonstrate basic knowledge of management, human resources, and organizational development in an entry-level management position.
14. Understand and practice the various functions of management as well as the nature and responsibilities of a manager.
15. Interpret management information from various sources such as financial statements, annual reports, and publications.
16. Demonstrate a responsible attitude in relationships with employers, fellow employees, working groups, and the macro-environment.

### CURRICULUM

#### Program Requirements

- ATP\* H100 - Integrated Automotive Systems **Credits: 3**
- ATP\* H110 - Automotive Electrical Systems **Credits: 3**
- ATP\* H120 - Engine Repair **Credits: 3**
- ATP\* H130 - Brakes **Credits: 3**
- ATP\* H150 - Suspension and Steering **Credits: 3**
- ATP\* H185 - Automotive Service and Parts Department Management **Credits: 2**

- BBG\* H101 - Introduction to Business **Credits: 3**
- BES\* H118 - Small Business Management **Credits: 3**
- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- BMG\* H202 - Principles of Management **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

Choose one:

- CSA\* H105 - Introduction to Software Applications Credits: 3

or

- CSC\* H101 - Introduction to Computers Credits: 3

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I Credits: 3

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

Choose one:

- MAT\* H121 - Applications for Business and Other Careers Credits: 3
- MAT\* H135 - Topics in Contemporary Mathematics Credits: 3
- MAT\* H167 - Principles of Statistics Credits: 3

#### **Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- PHY\* H110 - Introductory Physics Credits: 4

#### **Scientific Reasoning Credits: 0**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Waived

#### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

#### **TOTAL CREDITS: 60**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Business Administration, Business Computer Applications (HA54)

The goal of the Business Administration - Business Computer Applications program is to prepare students for employment in jobs in business and industry by providing a theoretical and practical foundation of business subject matter and by equipping them with needed skills in the use of application software that is appropriate for today's marketplace. The degree provides the student with strong business skills, coupled with a proficiency in the use of computers. The computer courses supplement the business skills and answer the question, "How do computers relate to business?" rather than "How do computers work?" Graduates of the program will be well qualified for entry-level positions in business and industry.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Demonstrate a level of mathematical skill appropriate for employment in a business environment.
2. Read, understand and prepare standard types of business communications.
3. Demonstrate an understanding of basic theory and practice in his/her focus area.
4. Possess skills appropriate to his/her focus area in the following software:
  - operating system
  - word processor
  - electronic spreadsheet
  - presentation software
  - internet browser
  - database management system (for management and marketing focus areas)
  - general ledger accounting system (for accounting focus)
  - other software as appropriate to the student's focus area
5. Use the Internet for business purposes, including research, marketing, stock market analysis, etc.
6. Read, understand, and use software documentation.

### CURRICULUM

#### Program Requirements

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**
- ECN\* H102 - Principles of Microeconomics **Credits: 3**
- CSA\* H135 - Spreadsheet Applications **Credits: 3**
- CSA\* H205 - Advanced Applications **Credits: 3**
- CSC Program Electives **Credits: 15**<sup>1</sup>

#### Competency Requirement

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- [Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed](#)

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

Choose one:

- CSA\* H105 - Introduction to Software Applications Credits: 3

or

- CSC\* H101 - Introduction to Computers Credits: 3

### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I Credits: 3

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Choose any five classes in the following areas:

CSC\* - Computers - Computer Science

CST\* - Computers - Computer Technology

CSA\* - Computers - Applications

ACC\* - Accounting

BFN\* - Business - Finance

BBG\* - Business - General

BMG\* - Business - Management

BMK\* - Business - Marketing

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Business Finance (HA57)

This program is designed to provide students with a course of study which will prepare them to assume positions as support personnel in banking, real estate, the insurance industry, and corporate finance departments or non-profit organizations. It is envisioned as a career program. The primary goal of the Finance Program is to prepare students for entry level employment in the field. Also available is the Finance Certificate which is designed for individuals seeking professional advancement. Students are strongly urged to seek the advice of a counselor if they intend to pursue a baccalaureate degree or certificate in finance.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Demonstrate knowledge of business finance including financial planning, long and short-term financing, fixed assets management and management of long-term debt.
2. Identify strategies and practices in government and consumer financing.
3. Demonstrate knowledge of monetary, fiscal and debt management policies of government.
4. Demonstrate knowledge of basic analytical techniques, problem-solving and decision-making.
5. Identify the basic concepts of Asset Management and be able to provide an overview of Liability and Deposit-Management as they relate to the financial services industry.
6. Identify techniques for managing working capital and demonstrate knowledge of the capital budgeting process.
7. Provide an understanding of how the United States economic system is organized, how it functions and how it impacts the global economy.
8. Identify the major goals and functions of financial management.
9. Understand the principle components of financial analysis in all levels of the business organization.
10. Demonstrate an understanding of the interrelationships between Finance and all other areas within a business, including working with other departments, to achieve overall strategic goals.

### CURRICULUM

#### Program Requirements

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**
- BFN\* H201 - Principles of Finance **Credits: 3**
- BBG\* H232 - Business Law II **Credits: 3**
- ECN\* H250 - Money and Banking **Credits: 3**
- BMG\* H202 - Principles of Management **Credits: 3**
- BFN\* H220 - Financial Management **Credits: 3**
- BBG\* H210 - Business Communication **Credits: 3**
- ECN\* H102 - Principles of Microeconomics **Credits: 3**
- Program Elective **Credits: 3**

#### Program Elective:

Choose one of the following:

- BFN\* H125 - Principles of Banking
- BFN\* H126 - Principles of Insurance
- BFN\* H203 - Investment Principles **Credits: 3**
- BRE\* H205 - Real Estate Law **Credits: 3**

- BFN\* H208 - Financial Analysis
- BRE\* H201 - Real Estate Principles Credits: 3

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

Choose one:

- CSA\* H105 - Introduction to Software Applications Credits: 3

or

- CSC\* H101 - Introduction to Computers Credits: 3

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I Credits: 3

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics Credits: 3

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

#### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed, preferably ENG\* H102 - Literature and Composition Credits: 3 or ENG\* H200 - Advanced Composition Credits: 3

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Selection of Finance courses should be made in consultation with Business faculty advisor.

<sup>2</sup> At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Business Management (HA68)

The Business Management Program is intended to provide students with a broad background in the field of management. Students completing this program will be qualified to accept entry-level positions in a variety of profit and non-profit organizations.

Students who plan to transfer to a four-year college should choose electives which conform to the curricular patterns of the college in which they plan to enroll after receiving the associate in science degree.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Demonstrate basic knowledge of management, human resources, and organizational development in an entry-level management position.
2. Identify the skills needed to organize thoughts and ideas and demonstrate the ability to communicate, verbally and in writing, in a manner that can be easily understood in the business environment.
3. Solve math problems related to various aspects of management including accounting, finance and operations.
4. Understand and practice the various functions of management as well as the nature and responsibilities of a manager.
5. Develop an understanding of the decision-making process and demonstrate effective decisionmaking.
6. Demonstrate an ability to define management problems, examine alternatives and decide on the best course of action, and submit these in writing to higher management.
7. Develop a personal philosophy of management, enabling him/her to perform as a manager, staff specialist or as a subordinate.
8. Develop an understanding of the nature of change and how to adapt to the accelerating, global environment.
9. Demonstrate a knowledge and use of technological innovations as they apply to management.
10. Develop an ability to interpret management information from various sources such as financial statements, annual reports, and publications.
11. Demonstrate an understanding of the competitive pressures brought by effectiveness, efficiency and innovation issues on organizations.
12. Demonstrate a responsible attitude in relationships with employers, fellow employees, working groups, and the macro environment.

### CURRICULUM

#### Program Requirements

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**
- BBG\* H101 - Introduction to Business **Credits: 3**
- BBG\* H232 - Business Law II **Credits: 3**
- BMG\* H202 - Principles of Management **Credits: 3**
- BMG\* H105 - Supervision and Organizational Behavior **Credits: 3**
- BMG\* H220 - Human Resources Management **Credits: 3**
- BBG\* H210 - Business Communication **Credits: 3**
- ECN\* H102 - Principles of Microeconomics **Credits: 3**
- Program Elective **Credits: 3**

#### Program Elective:

Choose one of the following

- BMK\* H220 - Sales Credits: 3
- BMK\* H201 - Principles of Marketing Credits: 3
- BMK\* H207 - Consumer Behavior
- BBG\* H295 - Management Cooperative Work Experience
- BFN\* H201 - Principles of Finance Credits: 3
- BFN\* H203 - Investment Principles Credits: 3
- BFN\* H126 - Principles of Insurance
- CSA\* H105 - Introduction to Software Applications Credits: 3

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/Ethics Credits: 3**

Choose one:

- CSA\* H105 - Introduction to Software Applications Credits: 3

or

- CSC\* H101 - Introduction to Computers Credits: 3

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Historical Knowledge Credits: 3**

- BBG\* H231 - Business Law I Credits: 3

#### **Oral Communication Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any listed

#### **Quantitative Reasoning Credits: 3**

Choose one:

- MAT\* H167 - Principles of Statistics Credits: 3

or

- MAT\* H172 - College Algebra Credits: 3

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

#### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed preferably ENG\* H102 - Literature and Composition Credits: 3 or ENG\* H200 - Advanced Composition Credits: 3

**TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Computer Information Systems Technology (HA76)

The Computer Information Systems program is built on a foundation of strong technical knowledge in information systems. The program emphasizes the areas of computer programming, database systems, computer networking, network security, project management and systems analysis. It also reinforces a broad understanding of other disciplines related to information systems, such as accounting, math, management, and communication. The CIS program allows students to tailor their degree to their interests by offering a wide range of electives. Certificates are also provided as a guide to assist students in the selection of electives. Many classes are fully mapped to industry certifications. The CIS Department is located in Technology Hall, a 100,000 sq. ft. facility on the eastern side of the NVCC campus. Classes are held in Smart classrooms featuring instructors' workstations that control an advanced classroom audio visual presentation system. Every CIS classroom also includes student workstations with state-of-the-art computers. The CIS Department also has three specialized Smart classrooms that are dedicated to the Networking courses and are connected to an adjacent Server Room.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Demonstrate desirable attitudes and work habits- creative thinking, the ability to solve problems, cooperation, good judgment, responsibility, and self-reliance.
2. Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
3. Communicate clearly, both verbally and in writing.
4. Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.
5. Demonstrate a commitment to professional organizations through attending meetings, seminars, and continuing education programs.
6. Apply knowledge of interpersonal and motivational skills and communication techniques learned in English, speech, psychology, and social sciences when working with customers, peers, and subordinates.
7. Develop sound ethical, philosophical, and moral professional characteristics.
8. Demonstrate a responsible attitude in relationships with employers, fellow employees, and toward the working environment.
9. Acquire a level of math skills appropriate for student's area of concentration.
10. Be able to list and describe emerging technologies.

### CURRICULUM

#### Program Requirements

- CST\* H130 - Networking Essentials I **Credits: 3**
- CSC\* H205 - VISUAL BASIC I **Credits: 3**  
**or**
- CSC\* H113 - Programming I **Credits: 3**
- CST\* H120 - Introduction to Operating Systems **Credits: 3**
- CSC\* H231 - Database Design I **Credits: 3**
- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- CSC Programming Elective **Credits: 3**<sup>1</sup>
- CSC Program Electives **Credits: 12**<sup>2</sup>

#### CSC Programming Elective

<sup>1</sup> Choose one of the following:

- CSC\* H206 - VISUAL BASIC II **Credits: 3**
- CSC\* H211 - VB & ASP .NET Web Programming **Credits: 3**
- CSC\* H213 - Object-Oriented Programming Using C++ **Credits: 3**
- CSC\* H214 - Advanced C++ Programming **Credits: 3**
- CSC\* H217 - Object-Oriented Programming Using C# **Credits: 3**
- CSC\* H220 - Object-Oriented Programming Using JAVA
- CSC\* H227 - Web Programming with Java **Credits: 3**
- CSC\* H228 - Mobile Device Programming **Credits: 3**
- CSC\* H229 - Programming II **Credits: 3**
- CSC\* H232 - Database Design II **Credits: 3**
- CSC\* H237 - Database Programming with VB.NET **Credits: 3**
- CSC\* H205 - VISUAL BASIC I **Credits: 3**
- CSC\* H113 - Programming I **Credits: 3** *(if both are taken, one can be used to meet the programming elective requirement.)*

## CSC Program Electives

<sup>2</sup>Choose four of the following:

- CSC\* H205 - VISUAL BASIC I **Credits: 3**
- or**
- CSC\* H113 - Programming I **Credits: 3** *(if both are taken, one can be used to meet the 4 elective requirement)*
  
- CSC\* H206 - VISUAL BASIC II **Credits: 3**
- CSC\* H211 - VB & ASP .NET Web Programming **Credits: 3**
- CSC\* H213 - Object-Oriented Programming Using C++ **Credits: 3**
- CSC\* H214 - Advanced C++ Programming **Credits: 3**
- CSC\* H217 - Object-Oriented Programming Using C# **Credits: 3**
- CSC\* H220 - Object-Oriented Programming Using JAVA
- CSC\* H227 - Web Programming with Java **Credits: 3**
- CSC\* H228 - Mobile Device Programming **Credits: 3**
- CSC\* H229 - Programming II **Credits: 3**
- CSC\* H232 - Database Design II **Credits: 3**
- CSC\* H237 - Database Programming with VB.NET **Credits: 3**
- CSC\* H183 - Information Systems in Organizations **Credits: 3**
- CSC\* H236 - Introduction to Client/Server Systems
- CSC\* H252 - Information Systems Project Management **Credits: 3**
- CSC\* H295 - Co-op Education Work Experience
- CST\* H235 - Network Systems **Credits: 3**
- CST\* H236 - Advanced Network Systems **Credits: 3**
- CST\* H239 - Servicing & Support of Local Area Networks **Credits: 3**
- CST\* H248 - Practices in Security Management **Credits: 3**
- CST\* H274 - Network Security Technology **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**

## Choose Not More Than Two of the Following

- CSA\* H135 - Spreadsheet Applications **Credits: 3**
- CSA\* H205 - Advanced Applications **Credits: 3**
- BMK\* H216 - Internet Marketing **Credits: 3**
- CJS\* H224 - Computer Crimes **Credits: 3**

- CJS\* H234 - Computer Security and Data Protection **Credits: 3**
- DAT\* H101 - Introduction to Digital Arts **Credits: 3**
- DAT\* H108 - Digital Imaging I **Credits: 3**
- DAT\* H205 - Multimedia Authoring II **Credits: 3**
- DAT\* H215 - Multimedia Web Authoring **Credits: 3**

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/Ethics Credits: 3**

- CSC\* H101 - Introduction to Computers Credits: 3

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

Choose one:

- MAT\* H167 - Principles of Statistics Credits: 3

or

- MAT\* H172 - College Algebra Credits: 3 or higher

#### **Scientific Knowledge and Understanding Credits: 4**

Scientific Knowledge **MUST** have a lab component

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3**

Choose one:

- CSC\* H250 - Systems Analysis and Design Credits: 3

or

- CSC\* H252 - Information Systems Project Management Credits: 3

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed preferably ENG\* H102 - Literature and Composition or ENG\* H200 - Advanced Composition

### **TOTAL CREDITS: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## **Criminal Justice/Public Safety now (HC18) formerly (HB04)**

The Criminal Justice/Public Safety Program provides training for career opportunities in law enforcement and policing, and also offers a broad liberal arts education for those students who wish to transfer their earned college credits from the program to four-year academic institutions.

### **Cooperative Work Experience**

One of the special characteristics of the program is the Cooperative Work Experience, whereby the student, under professional supervision, actually engages in practical hands-on training in the Criminal Justice/Public Safety area of his or her choice. The Cooperative Work Experience is an integral and recommended part of the Criminal Justice/Public Safety curriculum. The Co-op usually takes place during the second semester of the second year, after the student has satisfied all of the prerequisites. The Co-op experience allows students who have successfully met eligibility criteria to integrate and apply classroom theory to the field-based setting. Students participate under the supervision of qualified professionals in Criminal Justice/Public Safety organizations. The Coordinator of the Criminal Justice/Public Safety Program or the Division Leader should approve all Co-op placements. Students in the Criminal Justice/Public Safety Program should consult with the coordinator of the program before registering for courses, especially for the choice of electives and the cooperative work experience.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### **PROGRAM OUTCOMES**

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

1. Knowledge of the basic structures, functions, and legal bases inherent in the American Criminal Justice system, and an understanding of the historical events that have impacted the development of this system.
2. The ability to access and effectively use a variety of data sources of use in identifying/defining, understanding, and developing possible solutions to issues relevant to the field of criminal justice.
3. The ability to identify the protections guaranteed in the first, fourth, fifth, sixth, eighth, and fourteenth amendments and demonstrate an understanding of the U.S. Supreme Court's rulings that outline the specifics of those protections.
4. The ability to communicate the range of ethical dilemmas faced by professionals within criminal justice careers, and develop possible actions/solutions to those problems that achieve the various goals inherent within a variety of ethical frameworks.
5. An understanding of the sociological factors that impact our perspective of crime, the creation of law, violation of law and social norms, and the social response to law violation.

## **CURRICULUM**

### **Program Requirements**

- CJS\* H101 - Introduction to Criminal Justice **Credits: 3**
- CJS\* H211 - Criminal Law I **Credits: 3**
  
- Choose one:
- CJS\* H210 - Constitutional Law **Credits: 3**
- or**
- CJS\* H217 - American Legal Systems **Credits: 3**
  
- SOC\* H240 - Criminology **Credits: 3**
- CJS\* H255 - Ethical Issues In Criminal Justice **Credits: 3**

### **Competency Requirement**

### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Oral Communication Credits: 3**

Choose one:

- COM\* H100 - Introduction to Communication Credits: 3

or

- COM\* H173 - Public Speaking Credits: 3

### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics Credits: 3<sup>1</sup>

### **Scientific Knowledge Credits: 4**

Choose one:

- BIO\* H105 or
- BIO\* H115 or
- BIO\* H121

### **Scientific Reasoning Credits: 3 or 4**

Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- SOC\* H101 - Principles of Sociology Credits: 3

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3

### **Elective Courses in the Field (15 credits)**

Choose 5 **additional** CJS courses from the list of offerings: Course Descriptions

**Note:** CJS\* H102 and CJS\* H105 are recommended

### **TOTAL CREDITS: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students planning to transfer to a 4-year school should plan to complete MAT\* H167 - Principles of Statistics or MAT\* H172 - College Algebra.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.



## Cybersecurity (HA35)

The program provides preparation for students to obtain entry-level positions in the field of cybersecurity and computer crime deterrence. It also provides preparation and assistance to students for successful transfer to other institutions of higher education. It provides essential skills required to gain and to maintain employment at entry level positions as computer crime investigators, computer security specialists, and federal law enforcement officers. This new program combines elements of both NVCC's Criminal Justice and Computer Information Systems programs to offer students a strong grounding in understanding the investigative nature of cybersecurity in the criminal justice realm as well as gaining technical skills in computer science networking and programming.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Explain the landscape, key terms, challenges and concepts related to the many layers of cybersecurity. Methodologies include quizzes, tests, written work, and presentations.
2. Explain fundamental architectures of networks (networks build on each other) and demonstrate an understanding of network security. Methodologies include quizzes, tests, written work, presentations, and case studies.
3. Demonstrate an understanding of the legal and ethical issues and concepts associated with cybersecurity responsibilities. Methodologies include exams, quizzes, and written work.
4. Effectively communicate technical information and approaches for incident analysis and response verbally, in writing, and in presentations. Methodologies include written work and presentations.
5. Determine if and when criminal charges will be initiated for different security breaches. Analyze range of security breaches and identify if/when criminal charges are appropriate. Methodologies: case studies.
6. Apply counter measures that would secure network systems against threats. Methodologies: case studies.
7. Identify and discuss career opportunities and the necessary skills that will increase the likelihood of success in the field of cybersecurity, e.g., technical skills, network certifications, interpersonal communications, critical thinking, and leadership skills. Methodologies include presentations and case studies.

### CURRICULUM

#### Program Requirements

- CST\* H130 - Networking Essentials I **Credits: 3**
- CST\* H274 - Network Security Technology **Credits: 3**

Choose one:

- CST\* H120 - Introduction to Operating Systems **Credits: 3**
- or**
- CSC Elective Any Programming, Operating Systems, Networking or Database course

Choose one:

- FTA\* H272 - Terrorism - First Responders **Credits: 3**
- or**
- CST or CSC Elective Any Programming, Operating Systems, Networking or Database course

- PSY\* H217 - Psychology of Criminal Behavior **Credits: 3**
- CST\* H248 - Practices in Security Management **Credits: 3**
- CJS\* H101 - Introduction to Criminal Justice **Credits: 3**
- CJS\* H224 - Computer Crimes **Credits: 3**
- CJS\* H234 - Computer Security and Data Protection **Credits: 3**

- CJS\* H235 - Information Warfare and Security Credits: 3

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/Ethical Credits: 3**

- CSC\* H101 - Introduction to Computers Credits: 3

#### **Critical Analysis and Logical Thinking/ Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I Credits: 3

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics Credits: 3<sup>2</sup>

#### **Scientific Knowledge and Understanding Credits: 4**

Scientific Knowledge must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3**

- CSC\* H252 - Information Systems Project Management Credits: 3

#### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I Credits: 3

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students planning to transfer to a 4-year school should plan to complete MAT\* H167 - Principles of Statistics or MAT\* H172 - College Algebra.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Digital Arts Technology (HC24)

### PROGRAM OUTCOMES

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

1. Implement efficient time management and organizational practices.
2. Effectively communicate and function both independently and as part of a team.
3. Develop the ability to adapt and learn quickly.
4. Utilize the phases of the project development life-cycle to assist in the design, production, editing, and completion of original projects.
5. Synthesize and apply the processes involved in transforming a concept to a final product.
6. Complete significant projects terminating in deliverable software/media products.

### CURRICULUM

#### GENERAL EDUCATION CORE (31 CREDITS)

General Education Core

#### PROGRAM CORE COURSES (18 CREDITS)

- DAT\* H101 - Introduction to Digital Arts **Credits: 3**
- DAT\* H104 - Multimedia Authoring I **Credits: 3**
- DAT\* H108 - Digital Imaging I **Credits: 3**
- DAT\* H110 - Digital Video Production I **Credits: 3**
- DAT\* H290 - Digital Arts Project **Credits: 3**  
and **ONE** 200-level Digital Arts course from among those listed below:
- DAT\* H215 - Multimedia Web Authoring **Credits: 3**
- DAT\* H220 - Acoustics and Sound Design **Credits: 3**
- DAT\* H224 - Digital Video Production II **Credits: 3**
- DAT\* H226 - Motion Graphics for Film & Video **Credits: 3**
- DAT\* H230 - Digital Imaging II **Credits: 3**
- DAT\* H234 - 3D Graphics & Animation II **Credits: 3**
- DAT\* H236 - Digital Illustration **Credits: 3**
- DAT\* H237 - Principles of Sound Recording **Credits: 3**
- DAT\* H240 - Multimedia Authoring III **Credits: 3**

#### ELECTIVE COURSES IN THE FIELD (12 CREDITS)

Choose any 4 of the Elective courses from among those listed below:

- DAT\* H102 - Introduction to Photography **Credits: 3**
- DAT\* H106 - Digital Design **Credits: 3**
- DAT\* H116 - Interactive Media Design **Credits: 3**
- DAT\* H205 - Multimedia Authoring II **Credits: 3**
- DAT\* H212 - 3D Graphics & Animation I **Credits: 3**
- DAT\* H215 - Multimedia Web Authoring **Credits: 3**
- ART\* H101 - Art History I **Credits: 3**
- ART\* H102 - Art History II **Credits: 3**

- ART\* H111 - Drawing I **Credits: 3**
- ART\* H121 - Two-Dimensional Design **Credits: 3**
- ART\* H122 - Three-Dimensional Design **Credits: 3**
- ART\* H167 - Printmaking I **Credits: 3**
- BBG\* H101 - Introduction to Business **Credits: 3**
- BMK\* H201 - Principles of Marketing **Credits: 3**
- BMK\* H216 - Internet Marketing **Credits: 3**
- CSA\* H105 - Introduction to Software Applications **Credits: 3**
- CSA\* H135 - Spreadsheet Applications **Credits: 3**
- CSC\* H101 - Introduction to Computers **Credits: 3**
- CSC\* H113 - Programming I **Credits: 3**
- CSC\* H229 - Programming II **Credits: 3**
- CSC\* H231 - Database Design I **Credits: 3**
- COM\* H101 - Introduction to Mass Communications **Credits: 3**
- COM\* H154 - Film Study and Appreciation **Credits: 3**
- COM\* H157 - American Film **Credits: 3**
- COM\* H172 - Interpersonal Communication **Credits: 3**
- COM\* H202 - Intercultural Communication **Credits: 3**
- COM\* H226 - Journalism I **Credits: 3**
- GRA\* H150 - Introduction to Graphic Design **Credits: 3**
- DAN\* H175 - Kinesiology for Dancers **Credits: 3**
- ENG\* H202 - Technical Writing **Credits: 3**
- ENG\* H221 - American Literature I **Credits: 3**
- ENG\* H222 - American Literature II **Credits: 3**
- ENG\* H231 - British Literature I **Credits: 3**
- ENG\* H232 - British Literature II **Credits: 3**
- MUS\* H101 - Music History & Appreciation I **Credits: 3**
- MUS\* H111 - Fundamentals of Music I **Credits: 3**
  
- MUS\* H115 - Music Theory I **Credits: 3 along with**
- MUS\* H163 - Ear Training I **Credits: 1**
  
- THR\* H101 - Introduction to Theater **Credits: 3**
- THR\* H120 - Stagecraft **Credits: 3**
- THR\* H190 - Theater Practicum I **Credits: 3**
- THR\* H225 - Directing **Credits: 3**
- THR\* H290 - Theater Practicum II **Credits: 3**

## **TOTAL CREDIT HOURS: 61**

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Drug and Alcohol Recovery Counselor (HF10)

The Drug and Alcohol Recovery Counselor (DARC) program is nationally accredited through the National Addiction Studies Accreditation Commission (NASAC) and provides education and training for persons who want to become a Certified Addiction Counselor (CAC). The DARC curriculum (30 credits) meets the Connecticut Certification Board (CCB) requirements (300 hours of education, 300 hours of supervised practicum) to become a CAC. The DARC program is currently the only nationally accredited "Addiction Studies" program among all two and four year colleges in Connecticut.

### Employment

Students with a DARC Degree are highly sought after for entry level opportunities as substance abuse counselors in public and private agencies such as community and residential health facilities, local hospitals, prevention organizations, youth service agencies, and criminal justice system. According to the Occupational Outlook Handbook (2016-17 Ed.), employment of addiction counselors is expected to grow by 22 percent from 2014-2024, much faster than average as addiction counseling services are increasingly covered by insurance. Connecticut is considered one of the states with the highest concentration of jobs in this field with a mean average wage of \$46, 920.

### Curriculum

The DARC program consists of two years of academic study which includes general education, DARC specialty courses and a one year internship. The following DARC courses (DAR\* H101, DAR\* H111, DAR\* H112, DAR\* H158, DAR\* H213, DAR\* H220) are open to any student at the college, provided they meet the prerequisite of ENG\* H096 or tested into ENG\* H101. Students should take DAR\* H101 and DAR\* H111 in fall, DAR\* H112 and DAR\* H158 in spring. (This would be switched if a student is attending evening classes.) Students have to complete this sequence to apply for the DARC Internship which runs fall/spring of the next academic year. Students can be enrolled in the spring DAR courses and complete the Internship application/interview process.

### DARC Internship Admission Process

Acceptance into the DARC Internship (DAR\* H251, DAR\* H252) is selective and not guaranteed. All students participate in a screening and interview process (spring semester) which is intended to evaluate whether the applicant possesses specific skills, behaviors and attitudes that are necessary to work with persons with addiction and co-occurring disorders. Interested applicants must have completed or be enrolled in DAR\* H101, DAR\* H111, DAR\* H112, DAR\* H158 and ENG\* H101, and pass with a C or better prior to their internship. Students must complete and submit a formal DARC Application prior to the interview. Applications are distributed during the spring semester (Feb/March) each year. After the interviews, students are formally notified regarding acceptance to internship and ability to register for DAR\* H251 - Counseling Internship I.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown on the following page. Note: The DARC program is highly sequenced. Students are encouraged to take courses in the order they are listed on the following page.*

### PROGRAM OUTCOMES

*Upon successful completion of the DARC Program the graduate should be able to:*

1. Describe the physical, emotional and psychological basis of addiction
2. Define the causes and characteristics of substance dependence and addiction relevant to various populations and cultures
3. Define and apply counseling theories to addiction counseling including Adlerian, Existential, Person-Centered, Harm Reduction, Motivational Interviewing, Gestalt, Reality, Behavior, Cognitive Behavioral, Solution Focused, and Feminist perspectives
4. Define, demonstrate and apply ethical principles and practices according to NAADAC, the CCB, and professional behavior for working directly in the counseling field
5. Demonstrate knowledge and skills related to relapse prevention education and strategies
6. Describe the categories of drugs and effects on psychological functioning

7. Describe characteristics of individuals with cooccurring disorders and specific treatment strategies for working with this population
8. Demonstrate the ability to develop, write and implement treatment plans for individuals with addiction and co-occurring disorders
9. Co-facilitate group counseling sessions under supervision
10. Describe the use of case management in the treatment of persons with addiction and co-occurring disorders
11. Demonstrate ability to develop discharge plans for persons with addiction and co-occurring disorders
12. Demonstrate understanding of the screening, intake and evaluation process in addiction and co-occurring disorders treatment
13. Demonstrate ability to keep accurate records of group/individual process, treatment and discharge planning
14. Describe and demonstrate skills involved in crisis intervention
15. Describe the purpose and availability of self-help groups for persons with addiction/co-occurring disorders
16. Describe the effects of substance abuse on the family, educational needs and stages of recovery for families
17. Describe the stages of change model and its application to treatment of addiction and cooccurring disorders
18. Describe the use of multicultural counseling skills to assessment, treatment and aftercare issues of persons of different gender, ethnicity, disability, adolescents, the elderly, GBLT and homeless
19. Describe the transdisciplinary foundations and competencies required of addiction counselor (TAP 21)
20. Describe the use of medication in the treatment of addiction and co-occurring disorders
21. Demonstrate engagement in community service activities to educate others about the process, dangers and treatment of addiction
22. Discuss the purpose of clinical supervision and participate in the supervision process
23. Write a comprehensive case study based on a biopsychosocial assessment, including diagnosis, treatment plan goals and interventions acceptable for submission to the Connecticut Certification Board (CCB).

## **CURRICULUM**

**Competency or Program Requirement:**

### **First Semester**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Oral Communication Credits: 3**

- COM\* H100 - Introduction to Communication Credits: 3

#### **Program Requirements**

- PSY\* H111 - General Psychology I Credits: 3
- DAR\* H101 - Issues in Drug and Alcohol Abuse Credits: 3
- DAR\* H111 - Addiction Counseling I Credits: 3

### **Second Semester**

#### **Scientific Reasoning Credits: 3**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- DAR\* H158 - Biology of Addiction Credits: 3

#### **Social Phenomenon Credits: 3**

- SOC\* H101 - Principles of Sociology Credits: 3

#### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3

#### **Program Requirements**

- PSY\* H245 - Abnormal Psychology **Credits: 3**
- DAR\* H112 - Group Counseling Theory and Techniques **Credits: 3**

### **Third Semester**

#### **Continuing Learning and Information Literacy/Ethics Credits: 3**

- CSA\* H105 - Introduction to Software Applications **Credits: 3**

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

Choose one:

- MAT\* H135 - Topics in Contemporary Mathematics **Credits: 3**  
**or**
- MAT\* H167 - Principles of Statistics **Credits: 3**<sup>1</sup>

#### **Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- BIO\* H115 - Human Biology & Lab **Credits: 4**

#### **Program Requirements**

- DAR\* H251 - Counseling Internship I **Credits: 6** <sup>2</sup> (fall only)
- DAR\* H220 - Co-Occurring Disorders Counseling **Credits: 3**

### **Fourth Semester**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- [Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses.](#)

#### **Historical Knowledge and Understanding Credits: 3**

- [Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any listed preferably HIS\\* H101, HIS\\* H102, HIS\\* H201, HIS\\* H202](#)

#### **Program Requirements**

- DAR\* H252 - Counseling Internship II **Credits: 6** <sup>2</sup> (spring only)
- DAR\* H213 - Addiction Counseling II **Credits: 3**

### **TOTAL CREDITS: 64**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Mathematics selection from MAT\* H135 for career degree students, or MAT\* H167 for students intending to transfer.

<sup>2</sup> DAR\* H251 and DAR\* H252 must be completed in consecutive semesters.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Early Childhood Education (HB93)

The Early Childhood Education Program has earned NAEYC Accreditation of Early Childhood Higher Education Programs, is validated under the Connecticut Early Childhood Education Articulation Plan and will lead to the associate in science degree. A 30-credit Early Childhood Certificate Program option is also available within the program. The curriculum prepares students for immediate employment in the field as well as for transfer to baccalaureate programs. Graduates of the associate degree program are eligible for admission as articulation students to any of the state's participating baccalaureate institutions which offer Early Childhood Education Teacher Certification Programs Pre-K-Grade 3, to the University of Connecticut's Human Development and Family Relations major or to Charter Oak State College's child studies concentration. Graduates are also eligible to apply for the State of Connecticut's Preschool Early Childhood Teacher Credential through the Connecticut Office of Early Childhood, which is free of charge.

Students must receive a grade of C- or better in each of the Early Childhood Education courses. Practical experience is received by observing and assisting in a variety of early childhood settings and students are required to student teach at the Center for Early Childhood Education laboratory school. Such experience provides opportunities to implement knowledge and skills learned in the college classroom as well as to receive valuable feedback in order to reflect on one's own growth and competencies as a teacher working with young children.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below.*

### PROGRAM OUTCOMES

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

1. Compare and contrast various child development theories.
2. Demonstrate a basic knowledge of Early Childhood Education and the skills required to make objective observations of young children in the classroom setting.
3. Use effective classroom management techniques.
4. Plan, implement and reflect upon a wide variety of music, visual and performing arts experiences.
5. Describe and facilitate high quality literacy, math, science and social studies learning environments and effective teacher interactions.
6. Describe various differences or delays in, set developmentally appropriate goals for and effectively support young children in their language development.
7. Construct motivating, inviting and aesthetic learning environments and demonstrate an understanding of the concept of creativity through planning and implementing creative experiences.
8. Discuss and use techniques and skills that are specific to the developing needs of infants and toddlers.
9. Describe how learning theories can be applied to understanding children's behaviors.
10. Use effective communication skills in relation to families, colleagues and children.
11. Identify and describe identifiable special needs of young children and plan and implement general curricula accommodations and guidelines to meet those needs.
12. Create motivating, inviting and aesthetic learning environments and experiences.
13. Discuss and utilize the Connecticut Office of Early Childhood's Child Care Licensing Regulations, N.A.E.Y.C. Accreditation Standards and Procedures and the Connecticut Early Learning Development Standards.
14. Effectively plan, organize, implement and reflect upon classroom experiences.

### CURRICULUM

**Competency or Program Requirement:**

#### **First Semester**

#### **Continuing Learning/Information Literacy and Ethical Dimensions Credits: 3**

- ECE\* H109 - Science and Math for Children Credits: 3

### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

### **Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

Choose one:

- BIO\* H105 - Introduction to Biology Credits: 4  
or
- BIO\* H115 - Human Biology & Lab Credits: 4

### **Scientific Reasoning Credits: 0**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Waived

### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I Credits: 3

### **Program Requirement**

- ECE\* H101 - Introduction to Early Childhood Education Credits: 3

### **Second Semester**

### **Aesthetic Dimensions and Written Communication Credits: 3**

- ECE\* H103 - Creative Experiences for Children Credits: 3

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed, ENG\* H102 - Literature and Composition or ENG\* H200 - Advanced Composition are recommended

### **Program Requirements**

- ECE\* H231 - Early Language and Literacy Development Credits: 3
- ECE\* H106 - Music and Movement for Children Credits: 3
- ECE\* H141 - Infant/Toddler Growth and Development Credits: 3
- PSY\* H203 - Child Development Credits: 3

### **Third Semester**

### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H135 - Topics in Contemporary Mathematics or higher (except MAT\* H136 or MAT\* H137)

### **Program Requirements**

- SOC\* H101 - Principles of Sociology Credits: 3
- ECE\* H176 - Health, Safety and Nutrition Credits: 3
- ECE\* H210 - Observation, Participation and Seminar Credits: 3
- ECE\* H290 - Student Teaching I Credits: 3 (*Fall only*)

### **Fourth Semester**

### **Oral Communication Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Program Requirements**

- ECE\* H215 - The Exceptional Learner **Credits: 3**
- ECE\* H222 - Methods and Techniques in Early Childhood Education **Credits: 3**
- ECE\* H291 - Student Teaching II **Credits: 3**

### Any Liberal Arts and Behavioral/Social Sciences Course

One of the following is recommended:

- ART\* H101 - Art History I **Credits: 3**
- ART\* H102 - Art History II **Credits: 3**
- ART\* H141
- ART\* H161 - Ceramics I **Credits: 3**
- DAN\* H101 - History & Appreciation of World Dance **Credits: 3**
- ENG\* H215 - Studies in Children's Literature **Credits: 3**
- MUS\* H101 - Music History & Appreciation I **Credits: 3**
- MUS\* H103 - American Music **Credits: 3**
- MUS\* H115 - Music Theory I **Credits: 3**
- MUS\* H137
- MUS\* H218 - Electronic Music Composition/Audio Technology I **Credits: 3**
- THR\* H101 - Introduction to Theater **Credits: 3**

### **TOTAL CREDITS: 64**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Electronic Engineering Technology (HB11)

This program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

Today's electronics engineering technician must always be ready to serve our dynamic society. The expanding domain of electronics technology has reached into and overlapped many other disciplines. Electronic technicians of today are different from those of only a few years ago. The Electronic Engineering Technology Program at Naugatuck Valley Community College offers a curriculum that is designed to prepare students for these new career opportunities. The program emphasizes the fundamentals of electric and electronic circuit theory and analysis, but also stresses the role of computers, computer software, CAD systems, microprocessors, robotics, digital systems, programmable logic controllers (PLC's), various laboratory instruments, data acquisition and control systems. Students gain practical "hands-on" experience by using electronic instruments, microprocessors and computers. Also, a thorough knowledge of digital/electronic circuits is acquired, along with experience in electronic fabrication techniques and the design of printed circuit boards. As a result of the training and preparation provided by our program, the Electronic Engineering Technology graduate is an important and much sought after contributor to the engineering team in Connecticut's ever-changing high technology industries. Typical job entry titles include: Engineering Technician, Research Technician, Customer Engineer, Field Service Technician, Test/Service Manager, Repair Technician, Assistant Engineer and Electronics Technician.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below. Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM EDUCATIONAL OBJECTIVES AND STUDENT OUTCOMES

#### Program Educational Objectives (PEOs)

*The electronic engineering technology graduate will be prepared to make achievements in the following areas within a few years after graduation:*

1. Obtain employment in an electronic engineering technology related position.
2. Undertake baccalaureate studies in electronic engineering technology or any related engineering program.
3. Uphold professional expectations by conducting work in a safe and ethical manner.
4. Function effectively individually and serve as a team leader on collaborative projects.
5. Continually improve skills by undertaking professional development opportunities.

#### Student Outcomes (SOs)

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

1. Use mathematical formulas based on scientific laws and theorems as they relate to electricity, to analyze circuit problems, formulate solutions, and predict circuit behavior of both analog and digital circuits.
2. Possess the knowledge and skills to create a digital logic circuit design as a solution to a given problem statement. Build, troubleshoot, and verify designed circuit operation. Provide full documentation on design.
3. Build analog or digital circuits from a schematic drawing. Verify operation using test equipment such as ohmmeters, digital and analog voltmeters, ammeters, oscilloscopes, power supplies, function generators, and logic probes.
4. Use software design tools such as PSPICE, Multisim, etc. to graphically document, simulate and test behavior of both analog and digital circuits.
5. Use appropriate technical literature to research and implement an electronic project. Use an Electronic Design Automation software to design and document the printed circuit board(s), build the project, and follow a test procedure to ensure its proper operation.
6. Use a high-level programming language to program a microcontroller or solve a technical problem.
7. Use a visual programming language such as LabVIEW, to develop a solution to a problem. Design a program to serve as a system including virtual instruments to display / store / evaluate or plot data.
8. Communicate lab experiment findings in the form of written laboratory reports in a professional manner using appropriate tools such as a word processor, spreadsheets, and schematic drawing software.
9. Present experiment results or research orally.

10. Demonstrate an ability to function effectively as a member of a technical team.
11. Realize the responsibility of the individual technician to work in a safe and ethical manner as it relates to the electronic technician profession and demonstrate the ability recognize ethical issues and utilize the IEEE code of ethics as a guide to determine appropriate course of action in response to these issues.

## **CURRICULUM**

### **Competency or Program Requirement:**

### **First Semester**

#### **Continuing Learning/Information Literacy Credits: 1**

- EET\* H104 - Electronic CAD and Fabrication Credits: 1

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Ethical Dimensions Credits: 4**

- EET\* H110 - Electric Circuits I Credits: 4

#### **Quantitative Reasoning Credits: 4**

- MAT\* H186 - Precalculus Credits: 4<sup>1</sup>

#### **Program Requirements**

- EET\* H126 - LabVIEW Credits: 2

### **Second Semester**

#### **Oral Communication Credits: 3**

- [Click here on the requirement name Oral Communications](#) to expand the list of courses then select any course listed

#### **Social Phenomena Credits: 3**

- [Click here on the requirement name Social Phenomena](#) to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 4**

- PHY\* H121 - General Physics I Credits: 4

#### **Program Requirements**

- EET\* H114 - Electric Circuits II Credits: 4
- EET\* H136 - Electronics I Credits: 4

### **Third Semester**

#### **Scientific Reasoning Credits: 4**

- EET\* H252 - Digital Electronics Credits: 4

#### **Program Requirements**

- EET\* H232 - Electronics II Credits: 4

Choose one:

- MAT\* H254 - Calculus I Credits: 4
- or

- EET\* H208 - Applied Circuit Analysis **Credits: 3**
- EET\* H251 - Electronic Instrumentation **Credits: 3**

### **Fourth Semester**

#### **Continuing Learning /Information Literacy Credits: 2**

- EET\* H294 - Projects Credits: 2

#### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3  
**or**
- ENG\* H200 - Advanced Composition Credits: 3  
**or**
- ENG\* H202 - Technical Writing Credits: 3

#### **Program Requirements**

- Directed Technical Elective **Credits: 3**<sup>2</sup> (Choose from list below)
- Directed Technical Elective **Credits: 3**<sup>2</sup> (Choose from list below)
- EET\* H256 - Microprocessors **Credits: 4**

#### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> MAT\* H172 - College Algebra and MAT\* H185 - Trigonometric Functions can be substituted for MAT\* H186.

<sup>2</sup> Directed Technical Elective: Choose from EET\* H253 - Advanced Digital Electronics, EET\* H268 - Control Systems, or EET\* H208 - Applied Circuit Analysis if MAT\* H254 - Calculus I is also taken.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Engineering Science (HB12)

### College of Technology Pathway Program

The Engineering Science associate degree program prepares students for transfer to baccalaureate college and university programs in mechanical engineering, civil engineering, chemical engineering, electrical engineering and biomedical engineering. The program also offers students currently employed in technical positions in high technology industries the opportunity to retrain and upgrade their technical skills.

The Engineering Science program, through the Connecticut College of Technology Pathways program, provides for direct entry into baccalaureate engineering programs at the University of Connecticut, Central Connecticut State University, the University of Hartford, the University of New Haven or Fairfield University. Upon successful completion of the program, students earn junior status in a baccalaureate engineering program. *Note: Individual universities have different grade requirements.* Consultation with a faculty advisor is strongly recommended

*Additional courses may be required. The suggested sequence for full-time students is shown below. Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM OUTCOMES

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

1. Complete an Associate of Science degree in Engineering Science.
2. Transition seamlessly into a Bachelor of Science Degree Program in Engineering with junior level status in the receiving institution as part of the College of Technology Engineering Pathway Program.

### Student Learning Outcomes

1. Apply engineering, mathematical, scientific and technological principles and concepts to identify and formulate solutions to engineering problems.
2. Apply critical thinking and problem-solving skills to solve engineering problems.
3. Demonstrate the ability to function on teams.
4. Recognize the need to engage in life-long learning.

### CURRICULUM

**Competency or Program Requirement:**

#### **First Semester**

#### **Critical Analysis and Logical Thinking/Written Communication Credits:3**

- ENG\* H101 - Composition Credits: 3

#### **Oral Communication Credits: 3**

- COM\* H173 - Public Speaking Credits: 3

#### **Quantitative Reasoning Credits: 4**

- MAT\* H254 - Calculus I Credits: 4

#### **Scientific Knowledge and Understanding Credits: 4**

- CHE\* H121 - General Chemistry I Credits: 4

**Program Requirement**

- EGR\* H111 - Introduction to Engineering **Credits: 3**<sup>1</sup>

**Second Semester****Historical Knowledge and Understanding Credits: 3**

- HIS\* H101 - Western Civilization I Credits: 3
- or
- HIS\* H102 - Western Civilization II Credits: 3
- or
- HIS\* H201 - U.S. History I Credits: 3
- or
- HIS\* H202 - U.S. History II Credits: 3

**Scientific Reasoning Credits: 4**

- PHY\* H221 - Calculus-Based Physics I Credits: 4<sup>2</sup>

**Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3

**Program Requirements**

- MAT\* H256 - Calculus II **Credits: 4**
  - PHL\* H101 - Introduction to Philosophy **Credits: 3**
- or
- PHL\* H111 - Ethics **Credits: 3**
- or
- ENG\*Lit 200 level
- or
- a foreign language excluding ASL and ESL courses

**Third Semester****Program Requirement**

- MAT\* H268 - Calculus III: Multivariable **Credits: 4** (fall only)
- PHY\* H222 - Calculus-Based Physics II **Credits: 4**<sup>2</sup>
- EGR\* H211 - Engineering Statics<sup>1</sup>
- Directed elective **Credits: 3-4**<sup>3</sup>

**Fourth Semester****Aesthetic Dimensions/Written Communication Credits: 3**

- ART\* H101 - Art History I Credits: 3
- or
- ART\* H102 - Art History II Credits: 3
- or
- MUS\* H101 - Music History & Appreciation I Credits: 3
- or
- THR\* H101 - Introduction to Theater Credits: 3

**Continuing Learning/Information Literacy and Ethical Dimensions Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3

**Program Requirements**

- MAT\* H285 - Differential Equations **Credits: 3** (spring only)
- Choose one:

- EGR\* H212 - Engineering Dynamics<sup>1</sup>  
or
- EGR\* 230 - C++ for Engineerings  
Choose one: <sup>4</sup>
- EGR\* H214 - Engineering Thermodynamics <sup>1</sup>  
or
- EGR\* H215 - Engineering Thermodynamics <sup>1</sup>  
or
- CHE\* H122 - General Chemistry II **Credits:** 4 (spring only)  
or
- any EGR\*course<sup>1</sup>

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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### **TOTAL CREDITS: 63-65**

<sup>1</sup> Not currently offered at NVCC; Tunxis, Gateway, Housatonic, Norwalk and CCSU offer the courses.

<sup>2</sup> PHY\* H221 and PHY\* H222 are offered in fall and spring semesters, respectively. PHY\* H221 and PHY\* H222 are also offered in Special Session I and Special Session II during the summer, respectively.

<sup>3</sup> Choose from ANT\* H101, BIO\* H121, CHE\* H121, CHE\* H122, any EGR\* course, ENG\* H202, GEO\* H111, or POL\* H111; or a foreign language (excluding ASL and ESL courses) after consultation with an advisor because different Bachelor degree programs have different requirements.

<sup>4</sup> Choose course after consultation with an advisor because different Bachelor degree programs have different requirements.

## Engineering Technology (HB83)

The Engineering Technology Program leads to an associate in science degree. It was developed to meet the need for educational opportunities that will lead to employment in jobs using electro-mechanical skills, computer knowledge and application skills. The need for Engineering Technology graduates who have a strong math/science background and who are well grounded in the application of technology to workplace problems, has been the focus of much attention by the state's employers.

Connecticut's business and industry needs technical people who have knowledge in several areas of engineering technology. The increasing application of two or more technologies to achieve desired results in such areas as robotics and computer numerical control has focused our attention on the value of an engineering technology generalist.

The engineering technician is versed in several disciplines including electrical, automated manufacturing, mechanical, and chemical, and also has a good working knowledge of computer systems. The Engineering Technology Program prepares students to be engineering technicians who are able to respond to the changing demands of "high tech" industries, who are able to communicate with both the production worker and the engineer, and who can "wear many hats."

The Engineering Technology Program is attractive to those with specific career and educational goals that require diversity and to those who are unsure of their interests and/or abilities. Students may tailor a special program to meet specific educational and/or career goals which may include a unique career, job objectives, or a technology-oriented transfer program. While providing a quality education that prepares graduates for immediate employment, the program also enables graduates to transfer to baccalaureate programs at senior institutions. It is also attractive to those presently employed seeking skills enhancement and/or upward mobility.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below.*

*Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM OUTCOMES

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

1. Apply appropriate mathematical and scientific principles to engineering technologies.
2. Use state-of-the-art software and hardware.
3. Design and prepare CAD drawings.
4. Perform individually or as a member of a team to complete projects in an industrial environment.
5. Conduct experiments, analyze data, and interpret results from controlled laboratory experimentation in industrial applications.
6. Effectively and efficiently plan, organize, implement, and control projects.
7. Act consistently with the ethical standards and conduct of a professional in engineering technology.
8. Communicate effectively with individuals and groups using written, oral, and computer skills.
9. Possess the educational background needed to:
  1. obtain employment as a technician, and
  2. continue studies toward a B.S. degree in Engineering Technology.

### CURRICULUM

**Competency or Program Requirement:**

#### **First Semester**

#### **Continuing Learning/Information Literacy and Ethics Credits:3**

- TCN\* H101 - Introduction to Engineering Technology Credits: 3

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

### **Quantitative Reasoning Credits: 3**

- MAT\* H172 - College Algebra Credits: 3

### **Scientific Reasoning Credits: 4**

- PHY\* H121 - General Physics I Credits: 4

### **Program Requirement**

- CAD\* H150 - CAD 2D (AutoCAD) Credits: 3

### **Second Semester**

### **Scientific Knowledge and Understanding Credits: 4**

- CHE\* H111 - Concepts of Chemistry Credits: 4  
or
- CHE\* H121 - General Chemistry I Credits: 4 <sup>1</sup>

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3  
or
- ENG\* H200 - Advanced Composition Credits: 3  
or
- ENG\* H202 - Technical Writing Credits: 3 (recommended)

### **Program Requirements**

- MFG\* H104 - Manufacturing Processes Credits: 4
- MAT\* H185 - Trigonometric Functions Credits: 3
- Directed Elective (200 level) Credits: 3-4 <sup>2</sup>

### **Third Semester**

### **Oral Communication Credits: 3**

- COM\* H173 - Public Speaking Credits: 3 (recommended)

### **Program Requirements**

- MEC\* H114 - Statics Credits: 3 (fall only)
- MFG\* H106 - Computer-Aided Manufacturing I Credits: 3 (fall only)
- EET\* H102 - Electrical Applications Credits: 3
- Directed Elective (200 level) Credits: 3 <sup>2</sup>

### **Fourth Semester**

### **Social Phenomena Credits: 3**

- [Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed](#)

### **Program Requirement**

- MFG\* H275 - Mechanics of Materials Credits: 3 (spring only)  
or
- MEC\* H251 - Materials Strength Credits: 4 (spring only)
- Directed Elective (200 level) Credits: 3 <sup>2</sup>
- Directed Elective (200 level) Credits: 3 <sup>2</sup>
- Directed Elective (200 level) Credits: 3 <sup>2</sup>

## **TOTAL CREDITS: 63-65**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Choose if planning to transfer to a Bachelor's degree program

<sup>2</sup> Choose any 200-level CAD\*, EET\*, MAT\*, MEC\*, MFG\*, PHY\* course

**Also see:**

Electronic Engineering Technology (HB11)

Mechanical Engineering Technology (HC35)

Engineering Technology, Automated Manufacturing (HB84)

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## Engineering Technology, Automated Manufacturing (HB84)

The ultimate goal of the Automated Manufacturing Engineering Technology Program is to develop a highly skilled, hands-on, manufacturing technologist for the 21st century. Students are engaged in learning a full range of practical industrial skills that occur throughout a product's assembly or production process. Students are exposed to specific subject areas such as Lean Manufacturing, CNC programming, CAD/CAM operations, Additive Manufacturing, and Materials Production. In addition, traditional first year and second year engineering courses such as (Statics & Strength of Materials) are incorporated to provide a foundation for continuing on to four year Bachelor of Science programs in Manufacturing Engineering Technology, Mechanical Engineering Technology, and Technology Management.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below. Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM OUTCOMES

#### Program Educational Objectives (PEOs)

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

1. Graduates will use the knowledge of fundamental technical sciences integrated with applied technical specialties such as manufacturing processes, engineering materials, and manufacturing management and will successfully apply analytical techniques and problem solving skills necessary to adapt to technological changes and for a career in Automated Manufacturing Engineering Technology.
2. Graduates will use the academic experience from projects, laboratory experimentation, classroom lectures, and demonstrations and will apply the indepth technical knowledge attained in areas such as applied mechanics, computer-aided engineering graphics and manufacturing, design, and CNC machining.
3. Graduates will effectively use their communication skills in oral, written, visual, and graphic modes within interpersonal, team, and group environments.
4. Graduates will demonstrate professionalism and ethics, including commitment to utmost performance quality and timeliness, respect for diversity, and awareness of international issues; and will initiate continuing professional development that demonstrates their commitment to the responsibilities of a contemporary engineering technologist throughout their careers.

#### Student Outcomes (SOs)

*Upon successful completion of the program requirements, the graduates will demonstrate the:*

1. Ability to apply basic knowledge of mathematics, science and engineering principles to solve technical problems.
2. Ability to identify, formulate, and solve technical problems.
3. Ability to use modern technical and computer based tools in engineering practice.
4. Ability to conduct experiments and to analyze and interpret data.
5. Ability to develop a system or process to meet desired needs.
6. Ability to function effectively on teams and within a diverse environment.
7. Ability to communicate effectively in oral, written, visual, and graphic modes.
8. Recognition of the need for self-improvement through continuing education and the ability to engage in lifelong learning.
9. Understanding of professionalism and ethics and associated responsibilities.
10. Knowledge of contemporary issues and understanding of the impact of engineering/ technical solutions within a global perspective.

### CURRICULUM

#### Competency or Program Requirement:

## **First Semester**

### **Continuing Learning/Information Literacy and Ethics Credits: 3**

- TCN\* H101 - Introduction to Engineering Technology Credits: 3

### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

### **Quantitative Reasoning Credits: 3**

- MAT\* H172 - College Algebra Credits: 3

### **Scientific Reasoning Credits: 4**

- PHY\* H121 - General Physics I Credits: 4

### **Program Requirement**

- CAD\* H150 - CAD 2D (AutoCAD) Credits: 3

## **Second Semester**

### **Scientific Knowledge and Understanding Credits: 4**

- CHE\* H111 - Concepts of Chemistry Credits: 4  
or
- CHE\* H121 - General Chemistry I Credits: 4<sup>1</sup>

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3  
or
- ENG\* H200 - Advanced Composition Credits: 3  
or
- ENG\* H202 - Technical Writing Credits: 3 (recommended)

### **Program Requirements**

- MFG\* H104 - Manufacturing Processes Credits: 4
- MAT\* H185 - Trigonometric Functions Credits: 3
  
- CAD\* H200 - 3D CAD Modeling Credits: 4  
or
- MAT\* H254 - Calculus I Credits: 4<sup>2</sup>

## **Third Semester**

### **Social Phenomena Credits: 3**

- [Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed](#)

### **Program Requirements**

- MEC\* H114 - Statics Credits: 3 (fall only)
- MFG\* H106 - Computer-Aided Manufacturing I Credits: 3 (fall only)
- MFG\* H171 - Introduction to Lean Manufacturing Credits: 3 (fall only)
- EET\* H102 - Electrical Applications Credits: 3

## **Fourth Semester**

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed, COM\* H173 is recommended

### **Program Requirements**

- MFG\* H275 - Mechanics of Materials **Credits: 3**  
or
- MEC\* H251 - Materials Strength **Credits: 4** (spring only)
  
- MFG\* H239 - Geometric Dimensioning and Tolerancing **Credits: 3**  
or
- MFG\* H230 - Statistical Process Control **Credits: 3**
  
- MFG\* H210 - Materials of Engineering **Credits: 4**
- MFG\* H201 - Computer-Aided Manufacturing II **Credits: 3** (spring only)

### **TOTAL CREDITS: 65-66**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Choose CHE\* H121 if planning to transfer to a Bachelor's degree program.

<sup>2</sup> Choose MAT\* H254 if transferring to a Bachelor's degree program. Take MAT\* H254 in semester 3 and EET\* H102 in semester 2.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Engineering Technology, Computer-Aided Drafting / Design (HB86)

Computer-aided design (CAD) is an advanced, rapidly evolving technology used by designers and engineers to create technical drawings and computer models. It is essential to many industries because drawings and computer models are required before any product can be manufactured. Examples include automobiles, aircraft, marine vessels, machinery, electronics, plastic parts, medical devices, bridges, buildings, and roads, to name a few. Because of its broad application, computer-aided design offers many employment opportunities for people who maintain up-to-date skills.

Computers have made conventional manual drawing and design methods obsolete, thereby fundamentally changing the process of technical documentation. CAD enables a designer to make rapid revisions in a drawing and to evaluate many potential solutions to a design problem, thereby allowing the best one to be selected. In contrast to traditional methods, the designer works with computer models of the complete three-dimensional geometry of an object, rather than the two-dimensional views required when drawing on a sheet of paper. These models allow viewing of the object from any direction and enable a designer to visualize the assembly and fit of complex parts. Although the departmental program emphasizes this new technology, intelligent use of the computer relies upon a thorough knowledge of the principles of engineering graphics and conventional drafting practices. Therefore, topics such as orthographic and isometric projection, section and auxiliary views, descriptive geometry and dimensioning continue to be the starting point for the curriculum. The departmental program combines comprehensive instruction in the use of several current CAD software systems with industrial practice. Employment opportunities include: CAD Draftsperson/Operator, Mechanical Draftsperson, Designer, Engineering Technician, and Technical Illustrator.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below.*

### PROGRAM OUTCOMES

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

1. Have a thorough knowledge and understanding of CAD tools and processes.
2. Demonstrate team-oriented human skills that permit effective participation in multicultural work and social environments.
3. Apply appropriate mathematical and scientific principles to CAD applications, particularly descriptive geometry.
4. Demonstrate a thorough knowledge and understanding of engineering graphics and conventional drafting practices such as orthographic and isometric projection, section, detail, auxiliary views, and geometric dimensioning and tolerancing.
5. Demonstrate the ability to develop an engineering concept through the detail design process and produce professionally finished engineering drawings suitable for use in manufacturing.
6. Be able to work with specialists to resolve technical problems in design, manufacturing engineering, quality assurance, and production.
7. Demonstrate a high level of proficiency in the use of state-of-the-art CAD software and be able to adapt to new CAD systems as they are developed.
8. Demonstrate a thorough understanding of 3-dimensional solid modeling concepts, procedures, and applications.
9. Be aware of new developments in CAD and related areas, and assimilate new technologies as they emerge.
10. Be able to organize activities and perform work in an efficient, accurate manner.
11. Apply knowledge of computer applications including word processing, spreadsheets, and other software related to CAD processes.

#### Also see:

Electronic Engineering Technology  
 Engineering Technology  
 Manufacturing (Automated) Engineering Technology  
 Mechanical Engineering Technology

### CURRICULUM

#### Competency or Program Requirement:

**First Semester****Continuing Learning and Information Literacy/Ethics Credits: 3**

- TCN\* H101 - Introduction to Engineering Technology Credits: 3

**Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

**Quantitative Reasoning Credits: 3**

- MAT\* H172 - College Algebra Credits: 3

**Scientific Reasoning Credits: 4**

- PHY\* H121 - General Physics I Credits: 4

**Program Requirement**

- CAD\* H150 - CAD 2D (AutoCAD) Credits: 3

**Second Semester****Scientific Knowledge and Understanding Credits: 4**

Choose one:

- CHE\* H111 - Concepts of Chemistry Credits: 4  
or
- CHE\* H121 - General Chemistry I Credits: 4<sup>1</sup>

**Written Communication Credits: 3**

Choose one:

- ENG\* H102 - Literature and Composition Credits: 3  
or
- ENG\* H200 - Advanced Composition Credits: 3  
or
- ENG\* H202 - Technical Writing Credits: 3<sup>2</sup>

**Program Requirements**

- MAT\* H185 - Trigonometric Functions Credits: 3
- MFG\* H104 - Manufacturing Processes Credits: 4
- CAD\* H200 - 3D CAD Modeling Credits: 4

**Third Semester****Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed<sup>2</sup>

**Program Requirement**

- MEC\* H114 - Statics Credits: 3 (fall only)
- MFG\* H106 - Computer-Aided Manufacturing I Credits: 3 (fall only)
- CAD\* H220 - Parametric Design Credits: 3<sup>3</sup>
- Directed Elective Credits: 3<sup>4</sup>

**Fourth Semester****Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

## Program Requirement

Choose one:

- MEC\* H251 - Materials Strength **Credits: 4** (spring only)  
or
- MFG\* H275 - Mechanics of Materials **Credits: 3**
  
- CAD\* H294 - Senior Project **Credits: 4**
- Directed Elective **Credits: 3**<sup>4</sup>
- Directed Elective **Credits: 3**<sup>4</sup>

## TOTAL CREDITS: 65-66

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Choose if planning to transfer to a Bachelor's degree program.

<sup>2</sup> ENG\* H202 - Technical Writing and COM\* H173 - Public Speaking recommended for transfer to CCSU.

<sup>3</sup> CAD\* H220 is offered periodically based on demand. Speak to your advisor or the Associate Dean of STEM to plan accordingly.

<sup>4</sup> Directed Electives: (9 credits total) Choose from any 200-level CAD\*; EET\* H102 or any 200-level EET\*; any 200-level MAT\*; any 200-level MEC\*; MFG\* H171 or above.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Environmental Science (HB87)

The environmental field is a broad based area of study. It is truly interdisciplinary in nature. The subjects of biology, chemistry and geology are interwoven to provide a full picture of our environment and man's impact upon this system.

The Environmental Science degree provides students with a foundation in the basic sciences and highlights the field's interdisciplinary nature. The goal of the Environmental Science Program is to prepare students to transfer into a biological environmental science program at a four-year institution.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below.*

### PROGRAM OUTCOMES

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

1. Research and assess the accuracy of information from print, online and media sources and be able to distinguish between scientific fact and media sensationalism.
2. Apply the scientific method to environmental problems using both laboratory and field skills to gather, analyze and interpret scientific data.
3. Scientifically analyze and critically evaluate local/regional/global environmental problems in terms of ecological principles and development of sustainable solutions.
4. Demonstrate knowledge of the interdisciplinary nature of environmental science with the fundamental principles of biology, chemistry, geology, law and public policy.
5. Describe the relationship between biotic organisms and the abiotic factors within an ecosystem.
6. Demonstrate knowledge gained from scientific investigation by appropriate written, oral and mathematical means as these skills are vital to success as an environmental profession.
7. Examine environmental problems and issues as well as establish personal positions on such issues and problems collaboratively.

### CURRICULUM

**Competency or Program Requirement:**

#### **First Semester**

#### **Continuing Learning and Information Literacy/ Ethics Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed, CSA\* H105 or CSC\* H101 are recommended

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Quantitative Reasoning Credits: 3**

- MAT\* H172 - College Algebra Credits: 3 or higher

#### **Scientific Reasoning Credits: 4**

- BIO\* H121 - General Biology I - Cellular Biology Credits: 4

#### **Program Requirement**

- GLG\* H121 - Introduction to Physical Geology **Credits: 4** (fall only)

#### **Second Semester**

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3  
or
- ENG\* H200 - Advanced Composition Credits: 3  
or
- ENG\* H202 - Technical Writing Credits: 3

### **Program Requirement**

- BIO\* H122 - General Biology II - Organismal Biology **Credits: 4** (spring only)
- MAT\* H167 - Principles of Statistics **Credits: 3**
- ENV\* H110 - Environmental Regulations **Credits: 3** (spring only)
- BIO\* H181 - Environmental Science & Lab **Credits: 4** (spring only)

### **Third Semester**

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Scientific Knowledge Credits: 4**

- CHE\* H121 - General Chemistry I Credits: 4

### **Program Requirement**

- BIO\* H171 - Field Biology **Credits: 4** (fall only)

### **Fourth Semester**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed with the exception of HRT\* H202

#### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any listed, GEO\* H102 is recommended

### **Program Requirements**

- CHE\* H122 - General Chemistry II **Credits: 4** (spring only)
- BIO\* H235 - Microbiology **Credits: 4**

### **TOTAL CREDITS: 62**

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BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Fire Technology and Administration (HF05)

The program in Fire Technology and Administration is designed to provide advanced training and education that develops competent leaders in fire protection, prevention, and administration. It also provides training and education for personnel of insurance companies and of industries involved in fire prevention and protection practices.

Working in career and volunteer fire departments, local, state and federal government agencies, industry, architectural and construction firms, insurance organizations, and related groups, the fire technologist knows the need for fire prevention activities, the necessity to educate both children and adults in fire safety, and the importance of enforcing fire prevention codes. Because of the broad spectrum of problems encountered and the need for extensive familiarity with many subjects, the work of the fire technologist is seldom routine or boring. There is always something new to learn. However, the greatest satisfaction may come from knowing that the effective fire technologist continually improves the world in which we live by making it a safer place.

The program of study which leads to the associate in science degree in Fire Technology and Administration is planned to help students meet the professional standards established by the National Fire Protection Association, the Connecticut Commission on Fire Prevention and Control, and the Connecticut Fire Marshal's Training Council.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Demonstrate the ability to communicate verbally and in writing, prepare reports, presentations, investigations that support the administration and management of fire /emergency service agency in emergency or non-emergency situations.
2. Apply social and behavioral sciences, mathematical and scientific principles, and technical knowledge to develop and create solutions to address community problems and issues in the emergency management field they have not encountered previously.
3. Demonstrate knowledge of the organizational structure, both operational and administrative, of various types of emergency service providers, both public and private, career and volunteer, which impact the life safety of a community.
4. Understand human resource policies and procedures in order to assist members of an emergency service agency who are in need of assistance and intervention.
5. Apply basics of supervision and human resource management to set priorities so as to respond to community needs as determined in a community hazard assessment.
6. Develop a pre-incident plan of a specific facility, applying pre-planning policies, procedures and forms, so that all required elements are identified and catalogued.
7. Develop an initial action plan for an emergency operation to make maximum use of resources to control and mitigate the incident.
8. Demonstrate knowledge of safety policies, regulations and procedures as they apply to emergency and non-emergency operations of a community's emergency response agencies.
9. Demonstrate the basic knowledge necessary to conduct an inspection to identify hazards and address code violations in an Assembly, Educational, Health Care, Detention and Correctional, Residential, Mercantile, Business, Industrial, Storage, Unusual Structures, and Mixed Occupancy, so that all hazards, including hazardous materials are identified, appropriate forms are completed and appropriate action is initiated.
10. Demonstrate an in depth knowledge of who issues various protocols, standards and guides on a local, state, and national level that provide guidance to and regulation of life safety organizations.
11. Describe the methods of heat transfer and chemical processes that govern the development and spread of fire and how to apply that to various types of structures and situations in order to control and extinguish the fire by altering and improving the structure.

### CURRICULUM

#### Program Requirements

- FTA\* H112 - Introduction to Fire Technology **Credits: 3**

- FTA\* H116 - Building Construction **Credits: 3**
- FTA\* H118 - Fire Prevention and Inspection **Credits: 3**
- FTA\* H216 - Municipal Fire Administration **Credits: 3**
- FTA\* H218 - Sprinklers & Fixed Extinguishing Systems **Credits: 3**
- FTA\* H219 - Fire Investigation **Credits: 3**
- EMT\* H100 - Emergency Medical Technician- Basic (EMT-B) **Credits: 6** (or FTA electives)
- General Electives **Credits: 2** (FYI - MAT\* H137 and/or IDS H101 are General Electives)

**Choose 2 of the 4 Courses:**

- FTA\* H122 - Fire Behavior and Combustion **Credits: 3**
- FTA\* H126 - Safety and Survival **Credits: 3**
- FTA\* H210 - Water Supply and Hydraulics **Credits: 3**
- FTA\* H272 - Terrorism - First Responders **Credits: 3**

**Competency Requirement**

**Aesthetic Dimensions/Written Communications Credits: 0**

- Waived

**Continuing Learning and Information Literacy/Ethics Credits: 3**

- ECN\* H101 - Principles of Macroeconomics Credits: 3  
**or**
- CSA\* H105 - Introduction to Software Applications Credits: 3  
**or**
- CSC\* H101 - Introduction to Computers Credits: 3

**Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

**Historical Knowledge and Understanding Credits: 3**

- [Click here on the requirement name Historical Knowledge and Understanding](#) to expand the list of courses then select any course listed

**Oral Communications Credits: 3**

- [Click here on the requirement name Oral Communications](#) to expand the list of courses then select any course listed

**Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics Credits: 3  
**or**
- MAT\* H172 - College Algebra Credits: 3 or higher

**Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- CHE\* H111 - Concepts of Chemistry Credits: 4

**Scientific Reasoning Credits: 3**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- BIO\* H105 - Introduction to Biology Credits: 4  
**or**
- BIO\* H115 - Human Biology & Lab Credits: 4  
**or**
- PHY\* H110 - Introductory Physics Credits: 4  
**or**
- PHY\* H121 - General Physics I Credits: 4

**Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

**Written Communication Credits: 3**

- Click here on the requirement name Written Communication expand the list of courses then select any course listed

**TOTAL CREDITS: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

Fire Technology Program Director is available over the summer for advising sessions and assistance. Call (203) 575-8797 for appointment.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## General Studies (HB25)

The General Studies Program encourages students to explore, examine, and analyze a wide range of human knowledge. The program sets the foundation for lifelong learning.

The following are the requirements of the General Studies Program. The student must:

1. COMPLETE coursework totaling not less than sixty (60) credit hours.
2. COMPLETE the following thirty to thirty-two (30-32) credits from the College's General Education Core listing. The student is urged to take these courses before those in section "C" because they are a foundation upon which to build the program.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

## CURRICULUM

### Program Requirement

- General Elective **Credits: 30**<sup>1</sup>

In close consultation with a counselor or faculty advisor, **a student must choose 30 additional credits from at least three of the following academic areas:** Allied Health or Physical Education (ALH), Behavioral Social Science (BSS), Business (BUS), Liberal Arts (LA), or Science Technology, Engineering, Math (STEM)

### Competency Requirement

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

MAT\* H136/MAT\* H137 may be used as a General Elective but will not fulfill a Quantitative Reasoning requirement.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- Click here on the requirement name Social Phenomena to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed with the exception of ENG\* H101

### **TOTAL CREDITS: 60-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Students planning to transfer to a Bachelor program who have not completed three years of a modern language should be advised to use six credits of General Electives to complete language requirements.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Horticulture (HB37)

**This program is accredited by the National Association of Landscape Professionals (NALP).**

The Horticulture Program is designed as a career program leading to the associate in science degree. The goal of the Horticulture Program is to prepare students for employment as landscape contractors, greenhouse managers, related business professionals and for further education. The program includes the completion of two full years of study and an appropriate supervised cooperative work experience with nurseries, landscape businesses and greenhouses.

NVCC is a member of the CT Nursery and Landscape Association, CT Greenhouse Growers Association, CT Horticulture Society, and CT Florist Association.

The Horticulture Program is recognized by the Guaranteed Admissions Program with the UCONN College of Agriculture, Health, and Natural Resources. Students interested in the UCONN guaranteed admissions program must speak with the Horticulture Program Coordinator before registering. Visit <http://admissions.uconn.edu/apply/transfer/gap> for additional details.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below.*

*Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM OUTCOMES

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

1. Demonstrate proficiency in the construction of hardscape landscape components, including pavers, concrete and wood structures.
2. Identify common ornamental trees and shrubs, ground covers by botanical and common names, and describe characteristics of each.
3. Review and discuss the characteristics of soil, structure, soil erosion, and soil restoration.
4. Identify common herbaceous perennials and annuals by botanical and common names, and describe characteristics of each.
5. Analyze and design landscapes for both residential and commercial properties utilizing a variety of sustainable horticulture techniques and procedures and meet the needs of a diverse clientele.
6. Select the proper procedures, define the physiological basis, and describe practical applications of the reproduction of plants by asexual and sexual methods.
7. Describe proper design and operation of greenhouse environmental systems, and evaluate their advantages and disadvantages in commercial production.
8. Summarize and assess plant growth requirements for commercial production of greenhouse crops, and economically produce a crop from seed or cutting to harvest and sales.
9. Relate basic knowledge of botany to plant growth and culture.
10. Demonstrate a responsible attitude in relationships with employers, fellow employees, and toward the world of work in the horticulture field.
11. Solve problems related to the use of soil amendments, fertilizers, and plant growth control chemicals, and apply effective cost estimating, pricing, and record keeping techniques.
12. Create, manage, and gain profit from running a landscape maintenance business.
13. Identify, analyze, and troubleshoot common landscape and greenhouse pests and diseases within the landscape utilizing integrated pest management practices.
14. Practice specialized techniques within the horticulture field such as advanced design, food production, arboriculture, or turf management.

### CURRICULUM

**Competency or Program Requirement:**

**First Semester****Critical Analysis and Logical Thinking/ Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

**Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H121 - Applications for Business and Other Careers **Credits: 3**  
**or**
- MAT\* H135 - Topics in Contemporary Mathematics **Credits: 3**  
**or**
- higher than MAT\* H137 - Intermediate Algebra

**Scientific Knowledge and Understanding Credits: 3**

- HRT\* H102 - Woody Plants **Credits: 3**

**Program Requirements**

- HRT\* H101 - Landscape Construction **Credits: 4**

Choose one:

- HRT\* H104 - Soil Systems **Credits: 3**  
**or**
- CHE\* H111 - Concepts of Chemistry **Credits: 4**

**Second Semester****Aesthetic Dimensions Credits: 3**

- HRT\* H202 - Landscape Design I **Credits: 3**

**Scientific Reasoning Credits: 4**

- HRT\* H222 - Greenhouse Operations & Management **Credits: 4**

**Program Requirements**

- HRT\* H103 - Herbaceous Plants **Credits: 3**
- BIO\* H155 - General Botany **Credits: 4**

**Summer Semester****Program Requirement**

- HRT\* H290 - CWE/Horticulture Co-Op **Credits: 3**<sup>1</sup>

**Third Semester****Oral Communications Credits: 3**

- [Click here on the requirement name Oral Communications to expand the list of courses then select any course listed](#)

**Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition **Credits: 3**

**Program Requirements**

- HRT\* H215 - Integrated Pest Management **Credits: 3**
- Directed Elective **Credits: 3**<sup>2</sup>
- HRT\* H207 - Landscape Maintenance **Credits: 3**

## **Fourth Semester**

### **Continuing Learning/Information Literacy and Ethical Dimensions Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

### **Historical Knowledge and Understanding Credits: 0**

- Exempt

### **Program Requirements**

- HRT\* H208 - Landscape Contract Administration **Credits: 3**
- Directed Elective **Credits: 3**<sup>2</sup>
- Directed Elective **Credits: 3**<sup>2</sup>

### **TOTAL CREDITS: 60**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> HRT\* H290 Placement is required for this course. Students need to contact the program coordinator early in the semester prior to taking the course.

<sup>2</sup> Directed electives: HRT\* H105, HRT\* H106, HRT\* H107, HRT\* H115, HRT\* H124 <sup>3</sup>, HRT\*H125 <sup>3</sup>, HRT\* H203, HRT\* H204, HRT\*H206, HRT\* H219, HRT\* H224, HRT\* H240, HRT\* H250, ART\* H111

<sup>3</sup> HRT\* H124 - Floral Design I and HRT\*125 Floral Design II have not been offered recently.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Hospitality Management, Foodservice Management (HB16)

Foodservice is the second largest retail industry in the nation, employing more people in more businesses than any other retail industry. The demand for qualified personnel is much greater than the supply. Career opportunities abound in restaurants, hotels, resorts, clubs, conference centers, air and cruise lines, schools and colleges, and health care. The general objective of the Foodservice Management program is to prepare students for employment or self-employment in entry to mid-level supervisory and management careers in any of several types of foodservice operations and related positions in production, planning, sales and marketing. In addition, successful completion of the program provides graduates with the opportunity to transfer to Bachelor of Science degree programs in Hospitality Management/Administration in top universities. The program received the **V.I.P. Award from Connecticut's Department of Education and the Governor's Connecticut Tourism Award.**

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. The suggested sequence for full-time students is shown below.*

*Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM OUTCOMES

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

1. Identify, organize, plan and allocate resources in foodservice operations.
2. Demonstrate a working knowledge of food preparation theories and techniques.
3. Effectively work with others as a member of a team, serving clients and customers, and teaching others new skills. Exercise leadership behaviors, negotiate, and work with others from diverse backgrounds.
4. Obtain nationally recognized professional certification in food sanitation (as required by State Statute.) Demonstrate appropriate personal hygiene.
5. Organize and evaluate information and communicate the results to others using oral, written, graphic or multimedia methods.
6. Apply concepts of procurement and inventory to purchase, receive, store, issue, and distribute food and related items in a foodservice operation.
7. Identify current trends in the foodservice industry.
8. Demonstrate behavior and self-management reflective of personal and professional ethical conduct.
9. Perform basic mathematical computations accurately and appropriately, especially with regard to food and beverage production, purchasing and cost controls.
10. Identify and apply basic concepts of human nutrition and health in the preparation and service of food.
11. Describe and apply basic marketing, sales and merchandising methods in hospitality operations.
12. Demonstrate work readiness through resume preparation, appropriate business dress and behavior, and assertive communication skills.

### CURRICULUM

#### Program Requirements

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- HSP\* H100 - Introduction to the Hospitality Industry **Credits: 3**
- HSP\* H101 - Principles of Food Preparation **Credits: 3**
- HSP\* H135 - Service Management **Credits: 3**
- HSP\* H202 - Catering and Event Management **Credits: 3**
- HSP\* H108 - Sanitation and Safety **Credits: 3**
- HSP\* H102 - Food Production and Purchasing **Credits: 3**
- HSP\* H237 - Hospitality Marketing **Credits: 3**
- BMG\* H202 - Principles of Management **Credits: 3**
- HSP\* H211 - Food and Beverage Cost Control **Credits: 3**

- Any Business or Hospitality Elective **Credits: 3**

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- CSA\* H105 - Introduction to Software Applications **Credits: 3**  
**or**
- CSC\* H101 - Introduction to Computers **Credits: 3**<sup>1</sup>

#### **Critical Analysis and Logical Thinking/ Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I **Credits: 3**

#### **Oral Communication Credits: 3**

- COM\* H100 - Introduction to Communication **Credits: 3**
- COM\* H173 - Public Speaking **Credits: 3**
- ESL\* H157 - Oral Communications V **Credits: 3**

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any listed<sup>2</sup>

#### **Scientific Knowledge and Understanding Credits: 3**

- BIO\* H111 - Introduction to Nutrition **Credits: 3**<sup>3</sup>

#### **Scientific Reasoning Credits: 0**

- Waived

#### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

#### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any course listed

### **TOTAL CREDITS: 60**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> CSC\* H101 recommended for students intending to transfer.

<sup>2</sup> MAT\* H167 has prerequisite of MAT\* H137, and is recommended for students intending to transfer.

<sup>3</sup> Transfer students may want to consider taking a four-credit science course with lab.

*Note: Course substitutions may be granted with written approval of HSP Program Coordinator or Business Division Director. See Course Descriptions (HSP) for baking courses.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Hospitality Management, Hotel Management (HB94)

The nation's dynamic lodging industry generates over \$100 billion in yearly sales, employs over 2 million people and creates 100,000 new jobs each year. A wide variety of career opportunities exist in convention, resort, luxury and motor hotels as well as in new lodging concepts such as all-suite hotels, bedandbreakfast inns and geriatric care facilities. Graduates pursue management careers in rooms division, front office, food and beverage, conference services, banquets, marketing and sales, financial control, recreation, security, housekeeping and concierge among others. The program was honored with the **Governor's Connecticut Tourism Award in Hospitality Education Training**.

The general objective of the Hotel Management program is to prepare students for employment or self-employment in entry to mid-level supervisory and management careers, in any of several types of lodging operations and related positions in operations, planning, tourism, sales and marketing. In addition, successful completion of the program provides graduates with the opportunity to transfer to Bachelor of Science degree programs in Hospitality Management/ Administration in top universities.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### CURRICULUM

#### Program Requirements

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- HSP\* H100 - Introduction to the Hospitality Industry **Credits: 3**
- HSP\* H101 - Principles of Food Preparation **Credits: 3**
- HSP\* H135 - Service Management **Credits: 3**
- HSP\* H242 - Hotel Management **Credits: 3**
- HSP\* H108 - Sanitation and Safety **Credits: 3**
- HSP\* H241 - Principles of Travel and Tourism **Credits: 3**
- HSP\* H237 - Hospitality Marketing **Credits: 3**
- BMG\* H202 - Principles of Management **Credits: 3**
- HSP\* H211 - Food and Beverage Cost Control **Credits: 3**
- Hospitality or Business Elective **Credits: 3**

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- CSA\* H105 - Introduction to Software Applications **Credits: 3**  
or
- CSC\* H101 - Introduction to Computers **Credits: 3**<sup>1</sup>

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

##### **Historical Knowledge Credits: 3**

- BBG\* H231 - Business Law I **Credits: 3**

##### **Oral Communication Credits: 3**

- COM\* H100 - Introduction to Communication **Credits: 3**  
or

- COM\* H173 - Public Speaking **Credits: 3**  
**or**
- ESL\* H157 - Oral Communications V **Credits: 3**

### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any listed <sup>2</sup>

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component

- BIO\* H111 - Introduction to Nutrition **Credits: 3**
- or any listed lab science <sup>3</sup>

### **Scientific Reasoning Credits: 0**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component

- Waived

### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

### **Written Communication Credits: 3**

- Click here on the requirement name Written Communication to expand the list of courses then select any listed

## **PROGRAM OUTCOMES**

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

1. Identify, organize, plan and allocate resources in hotel operations.
2. Describe functional relationships among hotel divisions and departments.
3. Perform night audit procedures.
4. Demonstrate a working knowledge of food preparation theories and techniques, and utilize food production knowledge (quantity and quality standards) to meet production requirements of a foodservice operation.
5. List and describe the steps in planning destination development, and discuss the social, cultural and economic impact of this development upon the local environment.
6. Identify major geographical areas in terms of tourism generators.
7. Work with others as a member of a team, serving clients and customers, and teaching others new skills. Exercise leadership behaviors, negotiate, and work with others from diverse backgrounds.
8. Obtain nationally recognized professional certification in foodservice sanitation.
9. Identify current trends in the lodging industry such as delivery systems and functions, and operate effectively within them.
10. Demonstrate behavior and self-management reflective of personal and professional ethical conduct.
11. Perform basic mathematical computations accurately and appropriately, especially with regard to hotel and guest accounting, night audit, and cost controls.
12. Describe and apply basic marketing, sales and merchandising methods in hospitality operations.
13. Demonstrate work readiness through resume preparation, appropriate business dress and behavior, and assertive communication skills.

## **TOTAL CREDITS: 60-61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> CSC\* H101 recommended for students intending to transfer.

<sup>2</sup> MAT\* H167 has prerequisite of MAT\* H137, and is recommended for students intending to transfer.

<sup>3</sup> Transfer students may want to consider taking a four-credit science course with lab.

*Note: Course substitutions may be granted with written approval of HSP Program Coordinator or Business Division Director. See Course Descriptions (HSP) for baking courses.*

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## Human Services now (HA09) formerly Human Services/Pre-Social Work (HA06)

The field of Human Services is a dynamic and growing profession. Human Services provide assistance for people in all walks of life and in all stages of human development. Services focus on the individual as a whole and stress care in relation to the individual's circumstances and social environment.

The Program at NVCC offers an Associate Degree that allows students the opportunity, through directed electives, to focus on the areas of child and family services, disability & mental health, or gerontology. In addition, Certificate Programs are offered in these three areas of focus. The degree program curriculum prepares students for entry level, generalist Human Services practice. Examples of employment opportunities for graduates include case aide, case worker, youth worker, home visitor, shelter worker, parent advocate, residential counselor, and community educator. The program is also designed to provide ease of transfer for students continuing their education at a four-year institution in human services.

### Admission to The Program and Special Information

A student may enter the Human Services major by either declaring it upon admission to the College or transferring from another program within the College. As a professional preparation / pre-social work program, successful progress in the major necessitates that the student achieve a minimum grade of "C" in the two core Human Services courses before proceeding to the next one (HSE\* H101, HSE\* H202). Among the special characteristics of the Program is the coordination of supervised field work experience with academic studies. In the field work experience, students, under professional supervision, engage in hands-on training in the area of their interest at community agencies.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. Students are encouraged to meet with a Human Services academic advisor to select the appropriate elective courses based on their career and transfer goals.*

### PROGRAM OUTCOMES

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

1. Apply the acquired knowledge and skills of entry-level human services professionals.
2. Demonstrate professional responsibilities incorporating the values and ethical standards of the human services profession.
3. Explain the history of human services and social work and the National Organization of Human Service's ethical standards.
4. Present a well-organized, comprehensive oral report using technology.
5. Write a research report utilizing APA format.

## CURRICULUM

### Program Requirements

- HSE\* H101 - Introduction to Human Services **Credits: 3**
- HSE\* H202 - Introduction to Counseling and Interviewing **Credits: 3**
- Human Services Elective (HSE\* H115, HSE\* H133, HSE\* H170, or HSE\* H171)
- HSE\* H281 - Human Services Field Work I **Credits: 3**<sup>1</sup>
- SOC\* H101 - Principles of Sociology **Credits: 3**
- SOC\* H210 - Sociology of the Family **Credits: 3**
  
- SOC\* H201 - Contemporary Social Issues **Credits: 3**  
**or**
- SOC\* H221 - Social Inequality **Credits: 3**
  
- PSY\* H258 - Behavior Modification **Credits: 3**

- Gen Ed Elective **Credits: 3**
- Any Psychology, Sociology, History or Anthropology **Credits: 3**

### **Competency Requirement**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

#### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- Click here on the requirement name Continuing Learning and Information Literacy/ Ethical Dimensions to expand the list of courses then select any listed

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Historical Knowledge and Understanding Credits: 3**

- POL\* H111 - American Government **Credits: 3**

#### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

#### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H135 - Topics in Contemporary Mathematics **Credits: 3**  
**or**
- MAT\* H167 - Principles of Statistics **Credits: 3<sup>2</sup>**

#### **Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- BIO\* H105 - Introduction to Biology **Credits: 4**  
**or**
- BIO\* H115 - Human Biology & Lab **Credits: 4**

#### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

#### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I **Credits: 3**

#### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition **Credits: 3**  
**or**
- ENG\* H200 - Advanced Composition **Credits: 3**

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Placement is required. Students need to contact the program coordinator or the LABSS division office early, prior to the semester they plan to take the course.

<sup>2</sup> MAT\* H167 has prerequisite of MAT\* H137.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Legal Assistant/Paralegal (HB56)

The Legal Assistant/Paralegal Program is a member of the American Association for Paralegal Education whose focus is to train paralegals for private and public placement. It is not a pre-law program intended for those students who plan to enroll in law school after they have completed a baccalaureate program. Students who are planning to eventually enter law school should obtain a four-year degree as soon as possible.

The Legal Assistant/Paralegal curriculum prepares qualified people to handle, in a professional manner, many of the complex tasks involved in rendering skilled assistance to lawyers. Legal Assistants are prepared to do specialized work for banks, insurance companies, real estate firms, corporate offices, and public and semi-public agencies. The Legal Assistant/Paralegal Program offers a new career opportunity in a rapidly expanding field for people who have had no previous experience with legal work. For people already employed in legal work, the program will upgrade their skills. The topic of ethics and the paralegal's role in the legal profession are emphasized throughout the courses in the program.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. Students are encouraged to meet with a Legal Assistant/Paralegal academic advisor each semester to select the appropriate courses.*

### PROGRAM OUTCOMES

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

1. Interview client(s) and condense fact patterns into a concise legal analysis.
2. Explain the structure of the State and Federal Court system, including Trial Court function(s) and Appellate Court functions.
3. Identify historical, sociological and political trends that have changed, and continue to change, the American legal system.
4. Explain the role of forensic science in evidentiary matters pertaining to civil and criminal litigation.
5. Research a particular fact pattern to identify all legal issues, and describe the competing arguments that can be advanced by parties to a controversy.
6. Explain the role of the judiciary in providing a balance to the legislative and executive functions of government.
7. Differentiate between liability issues and damage issues in legal controversies.
8. Identify inherent restrictions in the civil and criminal legal process that inhibit the ability of the legal system to function as a tool of social justice.
9. Identify and present a logical plan for a client, taking into account the strengths and weaknesses of adopting various legal positions.
10. Maintain organized financial data concerning a client's case file.
11. Foster good relations between the law firm, department, or public entity, and the clients served.
12. Demonstrate organization in handling multiple client case files, and maintain strict docket control for timely case file review.
13. Understand conflict resolution as viewed from the theoretical perspective and the pragmatic perspective.
14. Apply common law principles and statutory principles where appropriate.
15. Recognize fundamental tort and contract principles that are found in different areas of the law.

### CURRICULUM

#### Program Requirements

- BBG\* H232 - Business Law II **Credits: 3**
- LGL\* H101 - Introduction to Paralegalism **Credits: 3**
- LGL\* H104 - Real Estate Practice **Credits: 3**
- LGL\* H102 - Legal Research and Writing **Credits: 3**
- LGL\* H208 - Litigation **Credits: 3**
- LGL\* H209 - Probate Practice and Estate Administration **Credits: 3**
- Legal Electives **Credits: 9**<sup>1</sup>
- Business Elective **Credits: 3**<sup>2</sup>

## **Competency Requirement**

### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- CSA\* H105 - Introduction to Software Applications **Credits: 3**

### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I **Credits: 3**

### **Oral Communications Credits: 3**

- COM\* H100 - Introduction to Communication **Credits: 3**

### **Quantitative Reasoning Credits: 3**

MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

- MAT\* H135 - Topics in Contemporary Mathematics **Credits: 3**
- or higher than MAT\* H137

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition **Credits: 3**

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Choose 3 of the following:

- LGL\* H210 - Family Law
- LGL\* H204 - Criminal Procedure
- LGL\* H230 - Advanced Legal Issues Seminar
- LGL\* H206 - Bankruptcy Law

<sup>2</sup> Choose 1 course from the following disciplines: Management, Finance, Accounting, Computer Science, Marketing, Economics

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Marketing (HB61)

The Marketing Program is designed to provide the most appropriate education and skills for those who are currently working or who plan to work, after receipt of their degree. At the same time, it provides flexibility to fit into a bachelor's degree in Marketing for students who plan to immediately transfer to a four-year college.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required.*

### PROGRAM OUTCOMES

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

1. Identify and develop solutions to marketing issues required to meet customers' needs.
2. Develop a marketing plan containing effective marketing vehicles.
3. Apply the concepts of "Total Quality Management."
4. Apply the concept of "Total Customer Service" and function as a customer service representative.
5. Apply market research methodologies to the business marketing issues.
6. Apply the Sales and Customer Service Process to the business' needs.
7. Prepare marketing material to include: sales literature, customer proposals, point-of-sale literature, and promotion plans for the consumer, trade and sales force.
8. Possess the following computer skills: database management, wordprocessing, internet marketing, desktop publishing, and sales and customer service information systems configuration.
9. Communicate clearly both verbally and in writing.

### CURRICULUM

#### Program Requirements

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**
- BMK\* H201 - Principles of Marketing **Credits: 3**
- ECN\* H102 - Principles of Microeconomics **Credits: 3**
- BBG\* H232 - Business Law II **Credits: 3**
- BBG\* H210 - Business Communication **Credits: 3**
- BMK\* H207 - Consumer Behavior **Credits: 3**
- CSA\* H207 - Computer Applications in Management & Marketing **Credits: 3**
- Program Elective **Credits: 3**<sup>1</sup>
- Business Program Elective **Credits: 3**<sup>2</sup>

#### Competency Requirement

##### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

##### **Continuing Learning and Information Literacy/ Ethical Credits: 3**

- CSA\* H105 - Introduction to Software Applications **Credits: 3**  
or
- CSC\* H101 - Introduction to Computers **Credits: 3**

##### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

### **Historical Knowledge and Understanding Credits: 3**

- BBG\* H231 - Business Law I **Credits: 3**

### **Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed

### **Quantitative Reasoning Credits: 3**

- MAT\* H167 - Principles of Statistics **Credits: 3**

### **Scientific Knowledge and Understanding Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Knowledge and Understanding to expand the list of courses then select any course listed

### **Scientific Reasoning Credits: 3-4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- Click here on the requirement name Scientific Reasoning to expand the list of courses then select any course listed

### **Social Phenomena Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition **Credits: 3**  
**or**
- ENG\* H200 - Advanced Composition **Credits: 3**

### **TOTAL CREDITS: 61-62**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> Prefer BMG\* H202 - Principles of Management

<sup>2</sup> Selection in Consultation with Business Division Faculty Advisor

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Mechanical Engineering Technology (HC35)

This program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

Mechanical engineering deals with POWER, and with the machinery used to convert power to useful work. The mechanical engineering technician is a practically-oriented member of the engineering team which applies existing technology to the solution of engineering problems. The mechanical engineering technician designs machines and processes used to generate and apply power to useful purposes. For example, a mechanical engineering technician may assist in the design of a power plant, testing of a space shuttle, manufacturing of a nuclear submarine, or building of an aircraft carrier.

Naugatuck Valley Community College's Mechanical Engineering Technology Program combines theory with laboratory experience. Subjects such as mathematics, physics, engineering mechanics, fluid mechanics, materials of engineering, thermodynamics, and mechanical design are included within the curriculum. After the theory is taught, it is applied to practical situations in the laboratories, which are supervised by professional engineers. Students learn how to set up and conduct an experiment, to extract and analyze engineering data, and to solve problems which require the application of engineering principles.

As a result of the training and preparation provided by our program, the Mechanical Engineering Technology student is ready to be employed by industry upon graduation. The blend of 'hands-on' experience with theoretical background, the applications to current technology, and the individual initiative that the student develops, make our graduates very marketable in the workforce. Graduates of the Mechanical Engineering Technology Program are successfully employed in many different industries in such positions as: laboratory technicians, field service technicians, design engineering technicians, application engineering technicians, and plant engineering technicians.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. **Note: The Mechanical Engineering Technology (MET) program is highly sequenced. To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester***

### PROGRAM EDUCATIONAL OBJECTIVES AND STUDENT OUTCOMES

#### Program Educational Objectives (PEOs)

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

1. Possess the educational background to do one or both of the following:
  1. Obtain employment in Mechanical Engineering Technology or other related field.
  2. Continue studies toward a Bachelor's Degree in Mechanical Engineering Technology or other related field.
2. Perform effectively individually or as a member of a team working on Mechanical Engineering projects in industry or academia.
3. Act with the high professional, moral and ethical standards expected of a Mechanical Engineering Technician.

#### Student Outcomes (SOs)

*After successful completion of the program, students will have demonstrated the ability to:*

1. Apply principles of mathematics, science and technology to solve well-defined engineering problems.
2. Formulate design solutions to well-defined technical problems.
3. Apply written, oral and graphical communication techniques.
4. Conduct experiments, test theories, and analyze and interpret results.
5. Function effectively in teams.

Also see: Engineering Technology, Computer-Aided Drafting / Design (HB86), Engineering Technology, Electronic Engineering Technology (HB11), Engineering Technology, Engineering Technology, Automated Manufacturing (HB84)

### CURRICULUM

**Competency or Program Requirement:**

**First Semester**

**Continuing Learning/Information Literacy and Ethics Credits: 3**

- TCN\* H101 - Introduction to Engineering Technology Credits: 3

**Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

**Quantitative Reasoning Credits: 4**

- MAT\* H186 - Precalculus Credits: 4<sup>1</sup>

**Scientific Reasoning Credits: 4**

- PHY\* H121 - General Physics I Credits: 4  
or
- PHY\* H221 - Calculus-Based Physics I Credits: 4<sup>2</sup>

**Program Requirement**

- CAD\* H150 - CAD 2D (AutoCAD) Credits: 3

**Second Semester**

**Scientific Knowledge and Understanding Credits: 4**

- CHE\* H121 - General Chemistry I Credits: 4

**Program Requirements**

- MAT\* H254 - Calculus I Credits: 4
- CAD\* H200 - 3D CAD Modeling Credits: 4
- MFG\* H104 - Manufacturing Processes Credits: 4

**Third Semester**

**Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3  
or
- ENG\* H200 - Advanced Composition Credits: 3  
or
- ENG\* H202 - Technical Writing Credits: 3<sup>5</sup>

**Program Requirements**

- MEC\* H114 - Statics Credits: 3 (fall only)
- EET\* H102 - Electrical Applications Credits: 3
  
- MEC\* H271 - Fluid Mechanics Credits: 4 (fall only)  
or
- MEC\* H240 - Fundamentals of Heat and Thermodynamics Credits: 4 (fall only)<sup>4</sup>
  
- Directed Elective Credits: 3<sup>3</sup>

**Fourth Semester**

**Oral Communications Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed<sup>3</sup>

### **Social Phenomena Credits: 3**

- [Click here on the requirement name Social Phenomena](#) to expand the list of courses then select any course listed

### **Program Requirements**

- MEC\* H251 - Materials Strength **Credits: 4** (spring only)
- MEC\* H238 - Dynamics **Credits: 4** (spring only)
- Directed Elective **Credits: 3**<sup>3</sup>

### **TOTAL CREDITS: 66**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> MAT\* H172 - College Algebra and MAT\* H185 - Trigonometric Functions can be used together as a substitute.

<sup>2</sup> Course only offered in Summer. Offered during the Fall or Spring at Tunxis, Gateway, Housatonic, Norwalk, CCSU, SCSU, and WCSU.

<sup>3</sup> Choose from any 200-level course with the following prefixes: CAD\*, EET\*, MAT\*, MEC\*, MFG\*, EGR\*, or PHY\* H222

<sup>4</sup> MEC\* H240 and MEC\* H271 are offered alternating fall semesters. Enroll in whichever is offered.

<sup>5</sup> ENG\* H202 - Technical Writing and COM\* H173 - Public Speaking recommended for transfer to CCSU.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## **Nursing (HF30)**

### **Connecticut Community College Nursing Program**

The Naugatuck Valley Community College nursing program is one of six community college nursing programs in Connecticut that have formed a collaborative called the Connecticut Community College Nursing Program (CT-CCNP) (<http://www.ct.edu/academics/nursing>). This collaborative shares a common nursing curriculum which offers an Associate of Science Degree in Nursing and prepares graduates for entry into practice as a Registered Nurse. Courses in social and biological sciences, liberal arts and nursing provide the foundation for the practice of nursing. Graduates are prepared to work as entry-level practitioners in health care settings that provide acute care, extended care, rehabilitative care, outpatient care and more. The CT-CCNP is approved collaboratively by the Connecticut State Board of Examiners for Nursing with the consent of the Commissioner of the Connecticut Department of Public Health. The associate degree nursing program at Naugatuck Valley Community College is located in Waterbury, Connecticut and is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326, (404) 975-5000.

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate degree nursing program is continuing accreditation.

View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.us/accreditedprograms/programSearch.htm>

### **Nursing Program Mission, Vision, and Philosophy**

Additional information regarding the "Nursing Program Mission, Vision, and Philosophy" for this program can be found by clicking [here](#).

### **The CT-CCNP Philosophy:**

Additional information regarding the "About the CT Community College Nursing Program" for this program can be found by clicking [here](#).

### **Admissions Process and Requirements**

Additional information regarding the "Admissions Process and Requirements" for this program can be found by clicking [here](#).

### **Advanced Placement**

Additional information regarding the "Applicants with an LPN license" for this program can be found by clicking [here](#).

### **Clinical Sites**

Clinical learning experiences are planned as an integral part of nursing courses and held at a variety of healthcare settings, such as: hospitals, extended care facilities, and selected community health centers. Students are responsible for arranging their own transportation to and from assigned clinical sites. Clinical experiences may be assigned during daytime, evening, or weekend hours. Assignment of clinical sites is at the discretion of the nursing faculty.

### **Waiver of Licensure Guarantee**

The curriculum for the Connecticut Community College Nursing Program (CT-CCNP) at Naugatuck Valley Community College meets the state education requirements for a Registered Nurse license in Connecticut. Graduates of the program are eligible to apply for the National Council of State Boards of Nursing registered nurse exam (NCLEX-RN) in Connecticut. Graduation from the CT-CCNP does not guarantee a license to practice nursing. Licensure requirements and permission to take the NCLEX-RN examination are established by the State Board for Nursing.

The CT-CCNP has not determined if the associate degree registered nurse program meets the state education requirements in any other state, any U.S. Territory, or the District of Columbia. Applicants should investigate licensure requirements prior to accepting an offer of admission to any CT CCNP program. The licensure boards in each state are responsible for establishing the requirements for licensure/certification for their state. Students who intend to seek licensure in any state other than Connecticut need to consult with the state professional licensing board. The state professional licensing boards make the decision on whether an individual is eligible for licensure based on the rules and regulations in place at the time the individual submits their application for licensure. Websites for each State Regulatory Agency for Nursing can be found at this link: [www.ncsbn.org/14730.htm](http://www.ncsbn.org/14730.htm)

## PROGRAM OUTCOMES

*While providing nursing care to individuals, families, groups, communities, and populations within the health care system, the nursing graduate:*

1. Demonstrates communication strategies that promote accurate exchange of information, prevent and manage conflict, and establish and maintain therapeutic relationships.
2. Integrates evidence-based practice into clinical decision-making for the provision of patient-centered care.
3. Uses data and patient care technology to communicate, differentiate, and manage patient information to support clinical decision-making for optimal patient outcomes.
4. Integrates leadership and priority-setting skills into the management and coordination of safe, quality, patient-centered care.
5. Uses the nursing process to provide patient-centered care that is responsive to the patient's physiological, pharmacological, psychological, cultural, and sociological preferences, values, and needs.
6. Integrates integrity and accountability that upholds established regulatory, legal, and ethical principles into cost effective, standard-based nursing care.
7. Uses quality improvement to promote the delivery of patient-centered care and to optimize patient outcomes.
8. Promotes a safe culture that minimizes the risk of harm to patients, self, and others at the work unit and health care system levels.
9. Analyzes the impact of the health care system on the provision of safe, quality patient-centered care at the level of the work unit.
10. Collaborates with the interprofessional health care team to manage and coordinate the provision of safe, quality, patient-centered care.

## CURRICULUM

**Competency or Program Requirements:**

### **Admission Requirements**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component. Admission and program requirements subject to change for subsequent academic years.

- BIO\* H211 - Anatomy and Physiology I **Credits: 4**<sup>1</sup>

#### **Scientific Reasoning Credits:4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component. Admission and program requirements subject to change for subsequent academic years.

- BIO\* H212 - Anatomy and Physiology II **Credits: 4**<sup>1</sup>

### **First Semester (Fall)**

#### **Program Requirements**

- NUR\* H120 - Nursing in Health Care I **Credits: 9**

- BIO\* H235 - Microbiology **Credits: 4** <sup>1</sup>
- PSY\* H111 - General Psychology I **Credits: 3** <sup>1</sup>

### **Second Semester (Spring)**

#### **Social Phenomena Credits: 3**

- SOC\* H101 - Principles of Sociology **Credits: 3** <sup>1</sup>

#### **Program Requirements**

- NUR\* H125 - Nursing in Health & Illness II **Credits: 8**
- PSY\* H201 - Lifespan Development **Credits: 3** <sup>1</sup>

### **Third Semester (Fall)**

#### **Aesthetic Dimensions/Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition (Required at NVCC) **Credits: 3**

#### **Program Requirement**

- NUR\* H220 - Nursing in Health & Illness III **Credits: 9**

### **Fourth Semester (Spring)**

#### **Directed Elective Credits:3**

- [Click here on the requirement name Oral Communications](#) to expand the list of courses then select any listed

#### **Program Requirements**

- NUR\* H225 - Nursing in Health & Illness IV **Credits: 8**
- NUR\* H226 - Transition to Professional Nursing Practice **Credits: 1**

### **TOTAL CREDITS: 65**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> There may be a **prerequisite course** that must be successfully completed prior to taking the course.

Nursing Credits:

Classroom - one contact hour = 1 credit

Clinical - three contact hours = 1 credit

Non-Nursing courses may be taken in the semester indicated above or they may be taken earlier. All non-nursing courses listed above require a minimum grade of C with the exception of BIO\* H211 and BIO\* H212 for which a C+ is required.

Nursing courses must be taken in the stated sequence.

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## Physical Therapist Assistant (HB71)

The Physical Therapist Assistant program at Naugatuck Valley Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), American Physical Therapy Association, 3030 Potomac Ave., Suite 100, Alexandria, VA 22305-3085; telephone: 703-706-3245; email: [accreditation@apta.org](mailto:accreditation@apta.org); website: <http://www.capteonline.org>. If needing to contact the program/institution directly, please call 203-596-2168 or email [jgangaway@nv.edu](mailto:jgangaway@nv.edu).

The PTA works under the direction and supervision of a physical therapist and is a valued member of the healthcare team. Career opportunities are in hospitals, school systems, private offices, home health agencies, industry, rehabilitation hospitals and nursing homes. This is a two year, full-time curriculum for an Associate in Science degree. More than 90 physical therapy clinics from around the state collaborate with this program to provide clinical education experiences / internships. The course of study begins in January and includes a minimum of 63 credits.

In reading this section candidates must note the special requirements of this program. Additional information may be found on the PTA webpage, [www.nv.edu/pta](http://www.nv.edu/pta).

### Selective Admission Requirements

1. Submit a PTA program application, in addition to the college application for admission, and an official final high school transcript indicating date of graduation, General Education Development (GED) Diploma, or State High School Equivalency Diploma. Submit all application materials, including college transcripts from all previous colleges attended, by the posted deadline for consideration for the upcoming spring semester.
2. Courses which must be completed by the application deadline to meet these requirements are:
  - BIO\* H211 - Anatomy and Physiology I (minimum grade of C+)
  - ENG\* H101 - Composition
  - MAT\*Elective (Any Quantitative Reasoning course higher than MAT\* H136/MAT\* H137 and minimum grade of C+)
  - PSY\* H111 - General Psychology I
3. All Math elective and BIO\* H211 and BIO\* H212 courses must be completed within five (5) years prior to entering the PTA Program.
4. Earn a minimum PTA GPA of 2.7 for coursework required for the degree. A minimum of "C+" for Math elective and BIO\* H211 and BIO\* H212 and minimum grade of "C" is required for all other courses for the degree.
5. Documented volunteer/observational experience totaling a minimum of 10 hours in each of an out-patient and an in-patient physical therapy setting (minimum 20 hours total) completed prior to application deadline.
6. Complete the ATI TEAS with a score equivalent to AITS of 60% or higher. Test scores will be valid for the three (3) years prior to the application deadline. For testing schedules, registration information, and study manual information go to [www.atitesting.com](http://www.atitesting.com). Applicants that have not taken the exam at a CT Community College must arrange to have their scores sent to NVCC.
7. All applicants should attend a PTA Program Information Session. Students are highly recommended to observe a laboratory class. Please refer to the website for additional information.
8. Students must be able to perform common physical therapy functions as defined in the program's Technical Standards. Please go to [www.nv.edu/pta](http://www.nv.edu/pta) under "Application Requirements" for a copy of this document.
9. In addition to tuition and fees, students in the PTA Program must pay for books, APTA membership, appropriate attire for clinical experiences, licensure review courses, and transportation. Students must complete and verify all required immunizations and provide certification by the American Heart Association or American Red Cross in Basic Life Support (BLS) for the Health Care Provider and First Aid before the start of clinical activities.
10. Clinical Education Experiences: The NVCC PTA Program offers clinical education experiences throughout Connecticut. Students may be required to travel more than 75 minutes to their assigned clinical site. Students are required to provide their own transportation, living expenses (as necessary), health insurance, and any other expenses while on clinical education experiences.
11. Students will be required by the program to undergo a background check with fingerprinting for felony convictions and to undergo a drug/substance screening. Students who do not pass the background check may be excluded from the clinical site and may not be able to meet the competencies required for graduation from the program, may not be eligible to take the licensure exam and/or may not be eligible for PTA licensure. Students who have a positive toxicology screen are not eligible to enroll in the program and will forfeit their admission seat.

Learning is planned as a progression of increasing complexity. The general education courses are supportive of the PTA courses. Therefore, all courses must be taken in sequence and/or no later than scheduled in the PTA curriculum. General education core classes and electives may be taken prior to entering the PTA program or completed earlier. Applicants are encouraged to complete the general education core classes and electives prior to entering the PTA Program. A minimum grade of "C" is required for all degree requirements, a minimum grade "C+" in BIO\* H211, BIO\* H212 and mathematics elective (higher than MAT\* H136/MAT\* H137), and an evaluation of "Pass" indicating satisfactory completion must be attained in clinical internship courses in order to progress. The faculty reserves the right to withdraw a student whose clinical performance is unsatisfactory. Attendance for class, lab, and clinical experiences is required. Sixty-three (63) semester hours are required for graduation from the PTA Program.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. The suggested sequence for full-time students is shown below. Refer to page General Education Core for a listing of courses that will satisfy elective requirements.*

## **PROGRAM OUTCOMES**

### **Program Mission**

*The Physical Therapist Assistant (PTA) Program is committed to high standards as it educates students with the knowledge, clinical skills, professional behaviors, and core values essential to evidence based and culturally competent care.*

### **Program Vision**

*The program emphasis on technology and communication facilitates learning in the classroom as the program endeavors to educate students who:*

- strive for excellence as physical therapist assistants
- commit to high ethical standards
- appreciate and value racial, social, economic, and cultural diversity
- utilize critical reflection
- invest in community improvement
- engage in lifelong learning

### **Program Outcomes**

*The design of the PTA curriculum, along with the mission of the PTA program, and the activities undertaken by the faculty and staff of the NVCC PTA Program should achieve the following program outcomes:*

1. Produce safe and competent graduates with the entry-level skills of a Physical Therapist Assistant.
2. The two-year overall passing rate of the graduates who choose to take the Physical Therapist Assistant national licensure examination will be at least 85%.
3. 80% of the graduates who seek employment as a Physical Therapist Assistant will attain a position within one year of graduation.
4. 75% or more of admitted students will complete the program within 1 ½ times the length of the program (3 years) as reported using CAPTE standards.
5. Students demonstrate entry-level clinical performance prior to graduation.

## **CURRICULUM**

### **Competency or Program Requirement:**

## **Admission Requirements**

### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I Credits: 3<sup>1</sup>

### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3<sup>1</sup>

### **Quantitative Reasoning Credits: 3**

- Click here on the requirement name Quantitative Reasoning to expand the list of courses then select any course listed higher than MAT\* H136/MAT\* H137<sup>1,2</sup>

### **Scientific Knowledge and Understanding Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- BIO\* H211 - Anatomy and Physiology I Credits: 3<sup>1</sup>

## **First Semester (Spring)**

### **Continuing Learning and Information Literacy/Ethics - Program Requirement Credits: 3-4**

- PTA\* H120 - Introduction to Physical Therapy Credits: 3
- PTA\* H125 - PT for Function Credits: 4

### **Scientific Reasoning Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- BIO\* H212 - Anatomy and Physiology II Credits: 3<sup>1</sup>

## **Program Requirement**

- PTA\* H130 - Clinical Anatomy and Kinesiology Credits: 3

## **Second Semester (Fall)**

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3<sup>1</sup>  
or
- ENG\* H200 - Advanced Composition Credits: 3<sup>1</sup>

## **Program Requirements**

- PTA\* H145 - Physical Agents in PT Credits: 3
- PTA\* H150 - PT Interventions I Credits: 4
- PTA\* H155 - Pathology for the PTA I Credits: 3

## **Third Semester (Spring)**

### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed<sup>1</sup>

## **Program Requirements**

- PTA\* H251 - PT Interventions II Credits: 3
- PTA\* H255 - Pathology for the PTA II Credits: 3
- PTA\* H258 - PTA in the Healthcare Arena Credits: 2

## **Fourth Semester (Fall)**

## **Program Requirements**

- PTA\* H260 - Physical Therapy Seminar **Credits: 2**
- PTA\* H262 - PTA Internship II **Credits: 5**
- PTA\* H265 - PTA Internship III **Credits: 5**

## **TOTAL CREDITS: 63 (GENERAL EDUCATION CREDITS: 23/PTA CREDITS: 40)**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one. Oral Communication and Historical Knowledge competency courses are waived.*

<sup>1</sup> There may be a prerequisite course that must be successfully completed prior to taking the course.

<sup>2</sup> MAT\* H137 and courses numbered lower than MAT\* H137 will not transfer to Connecticut State Universities as Quantitative Reasoning courses.

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Radiologic Technology (HB73)

The radiologic technologist is the technical assistant to the radiologist, (a physician who specializes in the use of x-rays and radioactive isotopes). Since x-rays are an important tool for the diagnosis of disease, radiologic technologists are valued members of the health team.

### Admission Requirements

The applicant must meet the following requirements in addition to the general admission policies:

High school diploma or equivalency and submission of all application materials including high school transcripts, immunization records, and college transcripts, if applicable, no later than the application deadline.

1. PREREQUISITES: Proof of having met the following:
  1. ENGLISH: Eligibility to take (or completion of with a C or better) ENG 101 Composition as determined by prior course work or sufficient score on Accuplacer placement test, SAT's or ACT's.
  2. MATH: Minimum of having completed at least one of the following within five (5) years of starting the program in the Fall semester:
    - MAT H136 or MAT H137 Intermediate Algebra or higher Algebra with a grade of C or better (excludes MAT H137L and/or Statistics without completing MAT H137 or equivalent as a prerequisite)
    - SAT Score: 570 or higher
    - ACT Score: 22 or higher
    - Accuplacer Placement test score placing into MAT H172 College Algebra
    - passing score on credit by exam for MAT H137
    - passing score on CLEP for MAT H172 College Algebra
  3. BIOLOGY: Grade of C or better in BIO 115 or BIO 121 (or equivalent or higher) taken within five (5) years of starting the program in the Fall semester. BIO 105 is acceptable, as an admission requirement, but will not meet a prerequisite for BIO 211 if taken prior to the Fall of 2021. High School Biology is acceptable to meet this admission requirement provided the course included a lab. A high school transcript must be submitted along with a course description.
  4. SCIENCE: Completion of an additional high school or college level physical science with a grade of C or better and taken within five (5) years of starting the program in the Fall semester (does not require a lab).
  5. TRANSCRIPTS (if applicable): Submit official college transcripts from all previous colleges regardless of age, grades received, or applicability to the program curriculum. This includes courses taken in high school that also earned college credits. Transcripts that include "in-progress" grades will need to be re-submitted showing final grades once coursework is completed and by January 15 of the application year\*.
  6. GPA: Minimum 2.5 Radiologic Technology GPA. Selection of candidates for admission is based upon academic history of the applicant. Math GPA, Science GPA, and overall GPA for all successfully completed general education courses in the radiology curriculum are used to rank candidates.
  7. PROGRAM INFORMATION SESSION: All qualified applicants will be required to attend a mandatory program information session. Applicants will be contacted in late February/early March with information. The deadline to register for, and attendance at an information session is strictly enforced.
2. If accepted into the program, students will also be required to:
  1. Undergo a medical examination and provide a report by a physician that describes the applicants physical and emotional health (must be done within three months of starting the program).
  2. Demonstrate ability to perform the skills needed to be a radiographer as outlined in the program's Technical Standards. Technical Standards are listed on page 90 of the Radiologic Technology Program Handbook which can be found on the Radiologic Technology program webpage.
  3. Undergo a criminal background check prior to the start of the first-year fall semester. The student is responsible for the associated costs. Students who do not pass a criminal background check may be excluded from the clinical site and may not be able to meet the competencies required for the program. If you feel that this may apply to you, please consider your acceptance into the NVCC Radiologic Technology Program carefully. If you have any questions, please contact the program director at 203-575-8266. *(The American Registry of Radiologic Technologists (ARRT) requirements concerning individuals with a previous criminal conviction may eliminate a student from sitting for the certification examination. A previous criminal record includes but may not be restricted to misdemeanor drug possession charges, DUI, felony convictions, military court martial, and proceedings where a plea of nolo contendere was entered. Individuals may contact the ARRT at (615) 687-0048 privately*

*for clarification of their eligibility status. ARRT certification is required to obtain a radiographer's license in Connecticut and many other states. Additional information may be found at [www.arrt.org](http://www.arrt.org).)*

4. Undergo a drug screening as a requirement of clinical site partners.
5. Provide proof of a Health Care Provider course in Basic Life Support (BLS) from the American Heart Association prior to beginning class. The Division of Continuing Education offers BLS courses throughout the summer.

## **Readmission and Transfer**

Candidates seeking readmission to the program must apply to the Program Director. Readmission requests are based on a total faculty review and vote. Students withdrawn for poor academic or clinical performance are not eligible to be readmitted. Consideration for readmission or transfer into the program can only be granted if there are available openings. Transfer students are required to submit official transcripts. Transfer admission is based on a minimum GPA of 2.50. Seat availability and completed course work and sequencing of the previously completed coursework with the NVCC Radiologic Technology Program's curriculum.

## **Professional Licensure**

Naugatuck Valley Community College meets the state education requirements for a Radiologic Technology license in the state of Connecticut. The NVCC Radiologic Technology Program, has not determined if the associate degree in Radiologic Technology Program meets the state education requirements in any other state, U.S. Territory, or the District of Columbia. Applicants should investigate licensure requirements prior to accepting an offer of admission to any Connecticut Radiologic Technology program. The licensure boards in each state, are responsible for establishing the requirements for licensure/certification for their state. Students who intend to seek licensure in any state other than Connecticut need to consult with the state professional licensing board. The state's professional licensing board will make the decision on whether an individual is eligible for licensure based on the rules and regulations in place at the time the individual submits their application for licensure.

For more information on State Licensure for Radiologic Technologist, visit this link: <https://www.arrt.org/pages/about-the-profession/state-licensing>

## **The Curriculum**

The Radiologic Technology Program is approved by the Board of Governors for Higher Education and the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL. 60606. (312) 704-5300. [www.jrcert.org](http://www.jrcert.org).

The curriculum is designed as a progression of increasing complexity. Therefore, all prescribed courses must be taken in sequence. Electives and core courses can be taken prior to the semester scheduled with the exception of the radiology courses. Clinical practicum is conducted in hospitals, offices, and imaging centers. It is necessary for the student to have adequate transportation. Students are required to purchase uniforms.

Academic classes are scheduled during the day. Clinical experience is scheduled during the day and evening. This is based upon instructor availability and funding.

Due to the extensive time requirements for classes, clinical, and studying, program faculty strongly recommend that radiology students work no more than 20 hours a week. Faculty strongly advise applicants to consider the time requirements for studying, attending class, attending clinical, as well as their personal obligations before accepting admission.

In order to meet the educational objectives of the program as well as ensure the safety of the patient and student, attendance policies are strictly enforced.

All General Education (Non-Radiologic Technology) courses can be taken before a student has been accepted into or is enrolled in the program in any sequence and provided the prerequisites have been met. Otherwise, all courses must be taken in the prescribed sequence and can only be taken once an applicant has been accepted into the program.

A minimum grade of "C" is required in all courses related to radiology and science courses. The faculty in the Radiologic Technology Program reserves the right to require withdrawal of a student from the Radiologic Technology Program whose clinical performance is unsatisfactory. Upon successful completion of all program requirements, students are eligible to take the American Registry of Radiologic Technologist Registry Examination. A minimum of sixty-five (65) credit hours is required for graduation.

*General Education Core course listings and definitions appear on General Education Core. Additional courses may be required. The suggested sequence for full-time students is shown below.*

## **PROGRAM OUTCOMES**

### **Program Mission**

*The Radiologic Technology Program prepares students to enter the imaging sciences as an educated and skilled radiographer. The program, founded on close alliances with the professional community and the use of educational technology, creates a learning environment that prepares radiographers who:*

- Combine efficiency and compassion when imaging patients.
- Practice in accordance with theoretical knowledge and essential skills.
- Maintain high ethical standards.
- Strive for continued development as a professional.
- Commit to clinical excellence.

### **Program Outcomes**

*The following goals further support the mission statement of the Radiologic Technology Program:*

1. Students will demonstrate effective communication skills.
2. Students will demonstrate clinical competence when performing entry level imaging procedures.
3. Students will exhibit professional growth and development.
4. Students will combine critical thinking & problem solving skills during the performance of imaging procedures.
5. The program will graduate students with entry level skills.

### **Student Learning Outcomes:**

- Students will demonstrate appropriate oral communication skills.
- Students will demonstrate written communication skills.
- Students will demonstrate appropriate personal and patient radiation protection.
- Students will accurately position patients.
- Students will demonstrate professional and ethical behavior.
- Students will value the importance of continued professional development
- Students will select technical factors when performing non-routine radiographic procedures.
- Students will choose appropriate positioning when performing non-routine radiographic procedures.

Clinical Affiliates:

Bristol Hospital  
Charlotte Hungerford Hospital -A Hartford Healthcare Partner  
Danbury Hospital -Western Connecticut Health Network  
Diagnostic Imaging of Southbury,  
Greater Waterbury Imaging Center

Naugatuck Valley Radiological Associates:

West Main Street and Prospect locations  
Orthopedics of New England  
Trinity Health of New England -St. Mary's Hospital  
Waterbury Hospital

## **CURRICULUM**

**Competency or Program Requirement:**

### **First Semester (Fall/1st yr.)**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Scientific Knowledge and Understanding Credits: 4**

*At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.*

- BIO\* H211 - Anatomy and Physiology I **Credits: 4**

#### **Program Requirements**

- RAD\* H112 - Orientation to Radiology **Credits: 3**
- RAD\* H197 - Clinical Practice I **Credits: 2**

### **Second Semester (Spring/1st yr.)**

#### **Scientific Reasoning Credits: 4**

*At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.*

- PHY\* H110 - Introductory Physics **Credits: 4**

#### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I **Credits: 3**

#### **Program Requirements**

- RAD\* H113 - Rad. Physics / Radiographic Quality I **Credits: 3**
- RAD\* H198 - Clinical Practice II **Credits: 2**
- BIO\* H212 - Anatomy and Physiology II **Credits: 4**
  
- RAD\* H198L - Procedures Lab I **Credits: 1**

### **Third Semester (Summer/1st yr.)**

#### **Program Requirements**

- RAD\* H114 - Contrast Media Procedures & Radiographic Quality II **Credits: 3**
- RAD\* H199 - Clinical Practice III **Credits: 2**

### **Fourth Semester (Fall/2nd yr.)**

#### **Oral Communication Credits: 3**

- COM\* H100 - Introduction to Communication **Credits: 3**

#### **Program Requirements**

- RAD\* H200 - Radiologic Physics & Diagnostic Imaging Modalities **Credits: 3**
- RAD\* H222 - Radiobiology & Protection **Credits: 3**
- RAD\* H297 - Clinical Practice IV **Credits: 3**
- PSY\* H201 - Lifespan Development **Credits: 3**
- RAD\* H297L - Procedures Lab II **Credits: 1**

### **Fifth Semester (Spring/2nd yr.)**

#### **Continuing Learning and Information Literacy/Ethics Credits: 3**

- CSA\* H105 - Introduction to Software Applications **Credits: 3**

*[CSC\* H101 is a comparable substitute]*

### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition **Credits: 3**

### **Program Requirements**

- RAD\* H215 - Radiographic Pathology **Credits: 3**
- RAD\* H298 - Clinical Practice V **Credits: 3**

### **TOTAL CREDITS: 65**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## Respiratory Care (HB74)

The Respiratory Care Program prepares students to enter a dynamic and progressive health care profession. Respiratory Therapists work with advanced technology making it possible to help patients with respiratory and cardiac disorders in ways that were impossible years ago. The Respiratory Care program provides hands-on education in diverse clinical settings such as adult and neonatal critical care, emergency care, longterm care, pulmonary rehabilitation and diagnostic services. Respiratory Therapists are vital members of the health care team who work closely with physicians providing education and support to patients with acute and chronic lung conditions. To learn more about the Respiratory Care profession, [click here](#).

The Naugatuck Valley Community College Respiratory Care Associate Degree Program is located on the Waterbury Campus. It is accredited by the Commission on Accreditation for Respiratory Care. For more information regarding accreditation, visit [www.coarc.com](http://www.coarc.com) or contact them at 817-283-2835. **Program reference number: 200460**

### How to Apply:

Application Information, Admission Requirements, Curriculum and additional information for the Respiratory Care program **beginning Fall 2023** can be found [here](#).

**CLINICAL JOB SHADOW:** A clinical job shadow is strongly recommended. Contact the [program director](#) for more information on how to schedule a shadow.

**NOTE:** Applicants who are enrolled in and plan to complete prerequisites during the winter may apply. Applicants who are enrolled in an successfully complete prerequisites during the spring semester may also apply but will only be considered after all other eligible candidates have accepted or declined their position.

### Special Admission Requirements for Certified Respiratory Therapist (CRT s)

Graduates of a one year certificate program who seek admission to the program and have successfully completed the Certification Exam for Respiratory Therapists by the National Board for Respiratory Care (NBRC) will be admitted into the program as a second year student. All CRT s seeking admission into the program must provide proof of certification in order to receive credit for the following technician level courses:

- RSP\* H112 - Fundamentals of Respiratory Care
- RSP\* H131 - Applied Pharmacology
- RSP\* H121 - Cardiopulmonary Anatomy and Physiology
- RSP\* H141 - Principles of Respiratory Care
- RSP\* H151 - Cardiopulmonary Pathophysiology and Diagnostics
- RSP\* H180 - Clinical Practicum
- RSP\* H181 - Clinical Practicum II
- RSP\* H281 - Advanced Clinical Practicum (transfer credit requires approval from the Director of Clinical Education).

Students entering the program as a CRT must complete all of the general education courses prior to graduation. All applicants will be required to take a self-assessment exam by the NBRC prior to admission to the program. This test is not used for admission into the program, but for internal purposes only.

### Transfer Requirements:

1. Students seeking transfer into the program must apply to the Program Director by the program application deadline (January 15).
2. Official transcripts must be provided with the application.
3. Consideration for transfer into the Respiratory Care Program depends on whether there are available openings at the time of the request.
4. Transfer admission is based on GPA and previous completed course work.
5. A minimum GPA of 2.5.

6. Students who were previously or are currently enrolled in another Respiratory Care program must have successfully completed their Respiratory Care and science requirements with a grade of "C" or better.
7. The Program Director and the Director of Clinical Education will evaluate previous respiratory care course work for equivalency with NVCC respiratory care courses.

*Please contact the program director for details or questions.*

### **Additional Program Information:**

Learning is planned as a progression of increasing complexity. For a student to progress to the next semester, a minimum grade of "C" is required in all respiratory courses.

Chemistry taken prior to admission must have been completed no earlier than 8 years prior to expected entry into the program. It must be equivalent to CHE\* H111.

Anatomy and Physiology I and II taken prior to admission must have been completed no earlier than 5 years prior to expected entry into the program. They must be equivalent to BIO\* H211 and BIO\* H212 and must be completed with a grade of "C" or better before a student can progress to the second year of the program.

Students must achieve a "C" or better in all required courses.

Electives and other core courses may be taken prior to the recommended semester.

Due to the extensive time requirements for classes, clinical and studying, the program faculty strongly recommend that students not work for more than 20 hours per week.

Students admitted to the program undergo criminal background checks and drug screens. Students who do not pass these may be excluded from clinical practice and may not meet the competencies of the program.

*General Education Core course listings and definitions appear on General Education Core. Placement testing will determine the sequencing of courses. Additional courses may be required. The suggested sequence for full-time students is shown below.*

## **PROGRAM GOAL AND OUTCOMES**

### **Program Mission**

*The Respiratory Care Program at Naugatuck Valley Community College is designed to prepare students to enter the field of Respiratory Care with the skills necessary to practice as proficient and competent Respiratory Therapists. Our program is designed to meet the evolving health care needs of our diverse community and our faculty are committed to a student-centered approach to teaching and learning that focuses on the development of evidence-based, ethical, and collaborative practice among our students and graduates.*

### **Program Outcomes**

The goal of the Respiratory Care program is to prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs). Upon successful completion of the program, the graduate will:

1. Assist physicians/licensed independent practitioners in the diagnosis, management, and treatment of patients affected by cardiopulmonary disorders.
2. Collect and evaluate clinical information relevant to their role as a respiratory therapist.
3. Participate in the inter-disciplinary plan of care.
4. Provide patient education concerning health management and prevention of respiratory disease.
5. Demonstrate proficiency in all skills and competencies required of a respiratory therapist as described by the Commission on Accreditation for Respiratory Care (CoARC).
6. Promote evidence-based practice by using established clinical practice guidelines and evaluating published research for its relevance to patient care.
7. Collaborate and communicate effectively with all members of the health care team to enhance patient care.

8. Adhere to AARC statement of ethics and professional conduct.
9. Apply principles and practices of patient safety and process improvement in all aspects of respiratory care.

## **CURRICULUM**

### **Competency or Program Requirement:**

#### **First Semester (Fall)**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition Credits: 3

#### **Historical Knowledge and Understanding Credits: 3**

- Click here on the requirement name Historical Knowledge and Understanding to expand the list of courses then select any course listed

#### **Scientific Knowledge and Understanding Credits: 3**

- BIO\* H211 - Anatomy and Physiology I Credits: 3 <sup>1</sup>

#### **Program Requirements**

- RSP\* H112 - Fundamentals of Respiratory Care Credits: 4
- RSP\* H121 - Cardiopulmonary Anatomy and Physiology Credits: 3

#### **Second Semester (Spring)**

#### **Oral Communication Credits: 3**

- Click here on the requirement name Oral Communications to expand the list of courses then select any course listed, including ESL\* H157.

#### **Program Requirements**

- RSP\* H131 - Applied Pharmacology Credits: 3
- RSP\* H141 - Principles of Respiratory Care Credits: 4
- RSP\* H180 - Clinical Practicum Credits: 1
- BIO\* H212 - Anatomy and Physiology II Credits: 4

#### **Third Semester (Summer)**

#### **Written Communication Credits: 3**

- ENG\* H102 - Literature and Composition Credits: 3 <sup>1</sup>
- or
- ENG\* H200 - Advanced Composition Credits: 3 <sup>1</sup>

#### **Program Requirements**

- RSP\* H151 - Cardiopulmonary Pathophysiology and Diagnostics Credits: 3
- RSP\* H181 - Clinical Practicum II Credits: 2

#### **Fourth Semester (Fall)**

#### **Continuing Learning and Information Literacy/Ethics Credits: 2**

- RSP\* H281 - Advanced Clinical Practicum Credits: 2

#### **Scientific Reasoning Credits: 4**

At least one Scientific Knowledge and Understanding OR Scientific Reasoning course must have a lab component.

- CHE\* H111 - Concepts of Chemistry **Credits: 4**

### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I **Credits: 3**

### **Program Requirements**

- RSP\* H270 - Hemodynamic and Critical Care Monitoring **Credits: 3**
- RSP\* H262 - Advanced Principles of Respiratory Care **Credits: 4**

### **Fifth Semester (Spring)**

### **Aesthetic Dimensions/Written Communication Credits: 3**

- Click here on the requirement name Aesthetic Dimensions/Written Communication to expand the list of courses then select any listed

### **Continuing Learning and Information Literacy/ Ethical Credits: 2**

- RSP\* H282 - Advanced Clinical Practicum II **Credits: 2**

### **Program Requirements**

- RSP\* H271 - Pulmonary and Cardiovascular Diagnostics **Credits: 2**
- RSP\* H291 - Perinatal and Pediatric Respiratory Care **Credits: 2**
- RSP\* H201 - Future Trends **Credits: 2**

### **TOTAL CREDITS: 67**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

<sup>1</sup> ENG\* H200 is recommended for those students who plan on pursuing a Bachelor of Science Degree

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## Technology Studies (HF11)

### *College of Technology Pathway Program*

The Connecticut College of Technology Pathways program allows students to complete an associate in science degree program in Technology Studies and continue on to complete a bachelor of science degree in Industrial Technology with a focus in Technology Management at Central Connecticut State University's School of Engineering Science and Technology. The curriculum offers a broad range of studies and topics in: mathematics, physics, chemistry, engineering drawing and computer-aided design (CAD), computer-aided manufacturing (CAM), electronic engineering technologies, mechanical engineering technologies, machine technologies, and other courses in special areas of technology. The program also includes a solid core of courses in general education. Successful completion of the program allows students to enter their junior year at Central Connecticut State University. Consultation with a faculty advisor is strongly recommended.

*Additional courses may be required. Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM OUTCOMES

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

1. Complete an Associate of Science degree in Technology Studies.
2. Transition seamlessly into a Bachelor of Science Degree Program with junior level status in the receiving institution as part of the College of Technology Pathway Program.

### Student Learning Outcomes

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

1. Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
2. Apply critical thinking and problem-solving skills to solve technical problems.
3. Demonstrate the ability to function on teams.
4. Recognize the need to engage in life-long learning.

### CURRICULUM

**Competency or Program Requirement:**

#### **First Semester**

#### **Continuing Learning/Information Literacy and Ethical Dimensions Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Quantitative Reasoning Credits: 3-4**

- MAT\* H185 - Trigonometric Functions<sup>1</sup> OR higher level MAT\*course

#### **Program Requirements**

- Choose any CAD\* course **Credits: 3**
- Directed elective **Credits: 3**<sup>2</sup>

## **Second Semester**

### **Scientific Reasoning Credits: 4**

- PHY\* H110 - Introductory Physics **Credits: 4**  
**or**
- PHY\* H121 - General Physics I **Credits: 4**

### **Written Communication Credits: 3**

- ENG\* H202 - Technical Writing **Credits: 3**

### **Program Requirements**

- Directed elective **Credits: 3**<sup>2</sup>
- Directed elective **Credits: 3**<sup>2</sup>
- Directed elective **Credits: 3**<sup>2</sup>

## **Third Semester**

### **Historical Knowledge and Understanding Credits: 3**

- HIS\* H101 - Western Civilization I **Credits: 3**  
**or**
- HIS\* H102 - Western Civilization II **Credits: 3**  
**or**
- HIS\* H201 - U.S. History I **Credits: 3**  
**or**
- HIS\* H202 - U.S. History II **Credits: 3**

### **Oral Communication Credits: 3**

- COM\* H173 - Public Speaking **Credits: 3**

### **Scientific Knowledge and Understanding Credits: 4**

- CHE\* H111 - Concepts of Chemistry **Credits: 4**  
**or**
- CHE\* H121 - General Chemistry I **Credits: 4**

### **Program Requirements**

- Directed elective **Credits: 3**<sup>2</sup>
- Directed elective **Credits: 3**<sup>2</sup>

## **Fourth Semester**

### **Aesthetic Dimensions/Written Communication Credits: 3**

- Fine arts course **Credits: 3**<sup>3</sup>

### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I **Credits: 3**  
**or**
- SOC\* H101 - Principles of Sociology **Credits: 3**

### **Program Requirements**

- Directed elective **Credits: 3**<sup>2</sup>
- Directed elective **Credits: 3**<sup>2</sup>
- Directed elective **Credits: 3**<sup>2</sup>
- MAT\* H167 - Principles of Statistics **Credits: 3**

## **TOTAL CREDITS: 65-66**

<sup>1</sup> If a student is not MAT\* H185 or MAT\* H186 ready, the student should take MAT\* prerequisite courses, e.g. MAT\* H137 or MAT\* H172

<sup>2</sup> 27 credits total: Choose from BIO\* H121, BIO\* H122 or BIO\* H235; BMG\* H202; BMK\* H201; any CAD\*; any CHE\*, ECN\* H102; any EET\*; any EGR\*: MAT\* H172 or higher, any MEC\*; any MFG\*; PHL\* H101 or PHL\* H111 ( only one PHL\* course can be taken for the program); any PHY\*; any TCN\*

<sup>3</sup> Choose from ART\* H101 or ART\* H102; DAN\* H101; MUS\* H101; THR\* H101

### **BECOMING CONNECTICUT STATE COMMUNITY COLLEGE**

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Technology Studies, Engineering Technology (HF12)

### *College of Technology Pathway Program*

The Connecticut College of Technology Pathways program allows students to complete an associate in science degree program in Technology Studies and continue on to complete a bachelor of science degree in Mechanical Engineering Technology or Manufacturing Engineering Technology at Central Connecticut State University's School of Engineering Science and Technology. The curriculum offers a broad range of studies and topics in: mathematics, physics, chemistry, engineering drawing and computer-aided design (CAD), mechanical engineering technologies, and manufacturing engineering technologies. The program also includes a solid core of courses in general education. Successful completion of the program allows students to enter their junior year at Central Connecticut State University. Consultation with a faculty advisor is strongly recommended.

*Additional courses may be required. Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### Program Outcomes - (HF12)

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

1. Complete an Associate of Science degree in Technology Studies.
2. Transition seamlessly into a Bachelor of Science Degree Program with junior level status in the receiving institution as part of the College of Technology Pathway Program.

### Student Learning Outcomes

1. Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
2. Apply critical thinking and problem-solving skills to solve technical problems.
3. Demonstrate the ability to function on teams.
4. Recognize the need to engage in life-long learning.
5. Demonstrate the ability to conduct standard tests and measurements, and to conduct, analyze and interpret experiments.
6. Demonstrate an understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity.

## CURRICULUM

### Competency or Program Requirement:

#### First Semester

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Scientific Reasoning Credits: 4**

- PHY\* H121 - General Physics I **Credits: 4**  
or
- PHY\* H221 - Calculus-Based Physics I **Credits: 4**<sup>1</sup>

#### **Quantitative Reasoning Credits: 3-4**

- MAT\* H185 - Trigonometric Functions **Credits: 3**  
or
- MAT\* H186 - Precalculus **Credits: 4**

**Program Requirements**

- TCN\* H101 - Introduction to Engineering Technology **Credits: 3**
- Any CAD\* course **Credits: 4**

**Second Semester****Written Communication Credits: 3**

- ENG\* H202 - Technical Writing **Credits: 3**

**Program Requirements**

- MAT\* H254 - Calculus I **Credits: 4**
- PHY\* H122 - General Physics II **Credits: 4**  
**or**
- PHY\* H222 - Calculus-Based Physics II **Credits: 4**<sup>1</sup>
- PHL\* course **Credits: 3**
- Directed Elective **Credits: 3**<sup>2</sup>

**Third Semester****Historical Knowledge and Understanding Credits: 3**

- HIS\* H101 - Western Civilization I **Credits: 3**  
**or**
- HIS\* H102 - Western Civilization II **Credits: 3**  
**or**
- HIS\* H201 - U.S. History I **Credits: 3**  
**or**
- HIS\* H202 - U.S. History II **Credits: 3**

**Scientific Knowledge and Understanding Credits:4**

- CHE\* H121 - General Chemistry I **Credits: 4**

**Oral Communication Credits:3**

- COM\* H173 - Public Speaking **Credits: 3**

**Program Requirements**

- MEC\* H114 - Statics **Credits: 3** (fall only)
- MAT\* H256 - Calculus II **Credits: 4**

**Fourth Semester****Aesthetic Dimensions/Written Communication Credits: 3**

- Fine arts course **Credits: 3**<sup>3</sup>

**Continuous Learning/Information Literacy and Ethical Dimensions Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

**Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I **Credits: 3**  
**or**
- SOC\* H101 - Principles of Sociology **Credits: 3**

**Program Requirements**

- MEC\* H238 - Dynamics **Credits: 4** (spring only)

- MAT\* H167 - Principles of Statistics **Credits: 3**

**TOTAL CREDITS: 67-68**

<sup>1</sup> PHY\* H221 and PHY\* H222 are offered in fall and spring semesters, respectively. PHY\* H221 and PHY\* H222 are also offered in Special Session I and Special Session II during the summer, respectively.

<sup>2</sup> Choose from any CAD\*; any EGR\*; any MEC\*; any MFG\*; any 200-level English Literature course.

<sup>3</sup> Choose from: ART\* H101 OR ART\* H102, DAN\* H101, MUS\* H101, THR\* H101

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

**STUDENTS: The Community Colleges are undergoing a merger with a plan to become Connecticut State Community College in fall 2023; please work closely with your advisor/program coordinator to select your courses accordingly.**

## Technology Studies, Lean Manufacturing and Supply Chain Management (HF20)

### *College of Technology Pathway Program*

The Connecticut College of Technology Pathways program allows students to complete an associate in science degree program in Technology Studies and continue on to complete a bachelor of science degree in Industrial Technology with a focus in Technology Management at Central Connecticut State University's School of Engineering Science and Technology. The curriculum offers a broad range of studies and topics in: mathematics, physics, chemistry, engineering drawing and computer-aided design (CAD), computer-aided manufacturing (CAM), electronic engineering technologies, mechanical engineering technologies, machine technologies, and other courses in special areas of technology. The program also includes a solid core of courses in general education. Successful completion of the program allows students to enter their junior year at Central Connecticut State University.

The Lean Manufacturing and Supply Chain Management Option, Technology Studies associate degree program prepares students to work in the 21st century world of Lean Manufacturing and supply chain management. Companies are now employing these techniques to reduce waste, cut costs and compete globally.

Consultation with a faculty advisor is strongly recommended.

*Placement testing will determine the sequencing of courses. Additional courses may be required. Note: To complete the degree in two years, students are advised to complete the courses in the sequence listed beginning in the fall semester.*

### PROGRAM OUTCOMES

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

1. Complete an Associate of Science degree in Technology Studies.
2. Transition seamlessly into a Bachelor of Science Degree Program with junior level status in the receiving institution as part of the College of Technology Pathway Program.

### Student Learning Outcomes

1. Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
2. Apply critical thinking and problem-solving skills to solve technical problems.
3. Demonstrate the ability to function on teams.
4. Recognize the need to engage in life-long learning.
5. Apply principles in lean manufacturing and supply chain management to eliminate waste in processes and protocols.

### CURRICULUM

**Competency or Program Requirement:**

#### First Semester

#### **Continuing Learning/Information Literacy and Ethical Dimensions Credits: 3**

- ECN\* H101 - Principles of Macroeconomics **Credits: 3**

#### **Critical Analysis and Logical Thinking/Written Communication Credits: 3**

- ENG\* H101 - Composition **Credits: 3**

#### **Quantitative Reasoning Credits: 3-4**

- MAT\* H185 - Trigonometric Functions **Credits: 3**<sup>2</sup>
- OR higher level math course **Credits: 3-4**<sup>2</sup>

**Program Requirements**

- CAD\* course **Credits: 3**
- MFG\* H171 - Introduction to Lean Manufacturing **Credits: 3**<sup>1</sup>  
or
- MFG\* H172 - Introduction to Lean Supply Chain Management **Credits: 3**<sup>1</sup>

**Second Semester****Scientific Reasoning Credits: 4**

- PHY\* H110 - Introductory Physics **Credits: 4**  
or
- PHY\* H121 - General Physics I **Credits: 4**

**Written Communication Credits: 3**

- ENG\* H202 - Technical Writing **Credits: 3**

**Program Requirements**

- Directed Elective **Credits: 3**<sup>3</sup>
- Directed Elective **Credits: 3**<sup>3</sup>
- MFG\* H271 - Advanced Lean Manufacturing **Credits: 3**<sup>1</sup>  
or
- MFG\* H272 - Implementing Lean Supply Chain Management **Credits: 3**<sup>1</sup>

**Third Semester****Oral Communication Credits: 3**

- COM\* H173 - Public Speaking **Credits: 3**

**Historical Knowledge and Understanding Credits: 3**

- HIS\* H101 - Western Civilization I **Credits: 3**  
or
- HIS\* H102 - Western Civilization II **Credits: 3**  
or
- HIS\* H201 - U.S. History I **Credits: 3**  
or
- HIS\* H202 - U.S. History II **Credits: 3**

**Scientific Knowledge and Understanding Credits: 4**

- CHE\* H111 - Concepts of Chemistry **Credits: 3**  
or
- CHE\* H121 - General Chemistry I **Credits: 3**

**Program Requirements**

- MFG\* H171 - Introduction to Lean Manufacturing **Credits: 3**<sup>1</sup>  
or
- MFG\* H172 - Introduction to Lean Supply Chain Management **Credits: 3**<sup>1</sup>
- Directed Elective **Credits: 3**<sup>3</sup>

**Fourth Semester****Aesthetic Dimensions/Written Communication Credits: 3**

- Fine arts course **Credits: 3**<sup>4</sup>

### **Social Phenomena Credits: 3**

- PSY\* H111 - General Psychology I **Credits: 3**  
**or**
- SOC\* H101 - Principles of Sociology **Credits: 3**

### **Program Requirements**

- MAT\* H167 - Principles of Statistics **Credits: 3**
- MFG\* H271 - Advanced Lean Manufacturing **Credits: 3** <sup>1</sup>  
**or**
- MFG\* H272 - Implementing Lean Supply Chain Management **Credits: 3** <sup>1</sup>
- Directed Elective **Credits: 3** <sup>3</sup>
- Directed Elective **Credits: 3** <sup>3</sup>

### **TOTAL CREDITS: 65-66**

<sup>1</sup> MFG\* H171-MFG\* H271 and MFG\* H172-MFG\* H272 are offered in alternating years. Enroll in whichever sequence is offered.

<sup>2</sup> If a student is not MAT\* H185 or MAT\* H186 ready, the student should take MAT\*prerequisite courses, e.g. MAT\* H137 or MAT\* H172.

<sup>3</sup> 15 credits total: Choose from BIO\* H121, BIO\* H122 or BIO\* H235; BMG\* H202; BMK\* H201; any CAD\*; any CHE\*, ECN\* H102; any EET\*; any EGR\*; MAT\* H172 or higher; any MEC\*; any MFG\*; PHL\* H101 or PHL\* H111 (only one PHL\* course can be taken for the program); any PHY\*; any TCN\*

<sup>4</sup> Choose from ART\* H101 or ART\* H102; DAN\* H101; MUS\* H101; THR\* H101

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## CERTIFICATE

## Accounting (HJ05)

### PROGRAM OUTCOMES

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

1. Demonstrate the use of the concepts and techniques of generally accepted accounting principles in the recording and reporting of financial information.
2. Describe accounting system procedures and techniques.
3. Analyze and use financial reports for decision making.
4. Explain the use of financial information in controlling and evaluating performance.
5. Use the vocabulary of financial and managerial accounting and economics for communicating.
6. Explain how budgeting, activity based costing and strategic cost management foster the effective use of resources and help an organization accomplish its goals.
7. Use computerized spreadsheets and accounting software.

### CURRICULUM

#### Core Area

(Required)

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**
- ACC\* H123 - Accounting Software Applications **Credits: 3**
- ACC\* H271 - Intermediate Accounting I **Credits: 3**
- ACC\* H272 - Intermediate Accounting II **Credits: 3**

#### Elect Three of the Following:

(9 credit hours)

- ACC\* H241 - Federal Taxes I **Credits: 3**
- BBG\* H101 - Introduction to Business **Credits: 3**
- BBG\* H231 - Business Law I **Credits: 3**
- BMG\* H220 - Human Resources Management **Credits: 3**
- BBG\* H210 - Business Communication **Credits: 3**

**TOTAL CREDIT HOURS: 24**

## Administrative Support (HJ81)

The Administrative Support Certificate offers students a broad range of computer skills, competent management skills and a keen understanding of the business environment. By choosing an area of focus in Accounting, Legal, Technology or General Business studies, students are prepared for career-oriented positions such as entry-level accounting and bookkeeping, information technology specialists, human resources generalists, legal assistants, legal secretaries, and administrative assistants. Concentrations offer an easy transition into the Business Management Associate Degree program. It also may transition to Associate Degree programs in Business Administration, Business Finance, Legal Assistant/Paralegal, and Marketing. Students are encouraged to complete this Certificate Program as a first step towards earning the Associate Degree. The program may be pursued on a full or part-time basis. Students requiring basic skills development courses in reading, English or math as determined by placement testing area are advised to begin their program with these basic skills courses to ensure success in the required business courses. For further information, please contact the Business Division Director.

### PROGRAM OUTCOMES

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

1. Demonstrate basic knowledge of the components of the business environment and environmental factors affecting business today.
2. Demonstrate understanding of the functions of management: planning, leading, organization and controlling.
3. Demonstrate the skills needed to organize thoughts and ideas and the skills needed to communicate them, verbally and in writing, in a manner that can be easily understood in the business environment.

### CURRICULUM

#### Core Area

(Required, 9 credits)

Choose one:

- CSA\* H105 - Introduction to Software Applications **Credits: 3**
- or**
- CSC\* H101 - Introduction to Computers **Credits: 3**
  
- BMG\* H202 - Principles of Management **Credits: 3**
- CSA\* H205 - Advanced Applications **Credits: 3**

#### Focus Areas

Select one of the focus areas below to complete the 6 credit hour requirement.

#### ACCOUNTING

- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**

#### Legal

- BBG\* H231 - Business Law I **Credits: 3**
- BBG\* H232 - Business Law II **Credits: 3**

#### Technology

- CSC\* H231 - Database Design I **Credits: 3**
- CSA\* H135 - Spreadsheet Applications **Credits: 3**

## General Business

- BMG\* H220 - Human Resources Management **Credits: 3**
- BMG\* H105 - Supervision and Organizational Behavior **Credits: 3**

**TOTAL CREDIT HOURS: 15**

## Advanced CADD Modeling (HJ03)

The need to attract more students into engineering is a national concern. The Advanced CADD Modeling Certificate is the third of the CADD certificates and continues to prepare a student, upgrading their skills, for employment and career advancement opportunities. NVCC's Engineering Technologies programs prepare graduates to be engineering technicians who are able to respond to the changing demands of Connecticut's "high tech" industries.

### PROGRAM OUTCOMES

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

1. Demonstrate a thorough understanding of engineering graphics and conventional drafting practices such as geometric constructions, orthographic, projection, isometric, section, detail, auxiliary views, and geometric dimensioning and tolerancing.
2. Develop an engineering concept through the detail design process and produce professionally finished engineering drawings.
3. Demonstrate a high level of proficiency in the use of state-of-the-art CAD software and be able to adapt to new CAD systems as they are developed.
4. Do basic and advanced manual CNC programming.
5. Write computer generated CNC programming.
6. Be aware of new developments in CAD and related areas.
7. Organize activities and perform work in an efficient, accurate manner.
8. Utilize advanced design methods, such as parametric feature based modeling, animation, simulation, and web-based design.

### CURRICULUM

- MFG\* H201 - Computer-Aided Manufacturing II **Credits: 3**
- CAD\* H220 - Parametric Design **Credits: 3**
- CAD\* H275 - CAD Animation (3D Studio Max) **Credits: 4**
- CAD\* H294 - Senior Project **Credits: 4**
- Elective - Directed Elective **Credits: 3**

#### Directed Electives

- CAD\* H285 - Computer Integrated Manufacturing (CIM) I **Credits: 3**
- CAD\* H286 - Advanced Modeling Techniques **Credits: 3**
- MAT\* H232 - Applied Calculus **Credits: 3**
- MAT\* H254 - Calculus I **Credits: 4**
- MEC\* H251 - Materials Strength **Credits: 4**
- MFG\* H210 - Materials of Engineering **Credits: 4**
- MFG\* H275 - Mechanics of Materials **Credits: 3**

**TOTAL CREDIT HOURS: 17**

## Advanced Engine Performance (HJ12)

The Advanced Engine Performance program enables a practicing automotive technician to develop the technical knowledge and skills associated with the advanced computer/electronic diagnostic systems and emission systems of today's automobile.

Purpose:

- To provide an understanding of automobile engine operation and repair.
- To provide an understanding of advanced electronic diagnosis and automotive emissions.
- To provide an understanding of the relationship between scientific principles and their application in the automobile.

Target Population:

- Individuals seeking employment opportunities in the automotive service field.
- Individuals seeking to upgrade their technical skills.
- Individuals preparing for career advancement opportunities in the automotive service field.

### PROGRAM OUTCOMES

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

1. Perform mathematics related to the occupation, including but not limited to: algebraic expressions, arithmetic, decimals and graphs.
2. Use scientific methods and critical thinking to solve problems in science related to the occupation, including but not limited to: electricity, chemical reactions, heat, motion, and hydraulics.
3. Demonstrate workplace skills related to the occupation including but not limited to: preparing a resume, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics and teamwork.
4. Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
5. Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
6. Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
7. Apply knowledge of general engine diagnosis and repair: including but not limited to the engine's: cylinder heads, valve train, block, lubrication, and cooling system.
8. Apply knowledge of general electrical/electronic systems, including but not limited to: starting, charging, lighting, wiring, accessories, diagnosis and repair.
9. Apply knowledge of general engine performance, including but not limited to: computer controls, ignition, fuel, exhaust, and emission systems, and their maintenance, diagnosis, adjustments, and repair.

### CURRICULUM

- ATP\* H100 - Integrated Automotive Systems **Credits: 3**
- ATP\* H120 - Engine Repair **Credits: 3**
- ATP\* H110 - Automotive Electrical Systems **Credits: 3**
- ATP\* H210 - Engine Performance **Credits: 3**
- ATP\* H220 - Automotive Emissions **Credits: 3**
- ATP\* H291 - Cooperative Work Experience II **Credits: 3**

### TOTAL CREDIT HOURS: 18

To ensure appropriate placement, placement test results and course prerequisites should be reviewed with the Program Coordinator and/or advisor.

## Advanced English Proficiency (HJ80)

The English as a Second Language Certificate of Advanced English Proficiency provides non-native speakers of English with personal and professional development opportunities, encourages lifelong learning, and provides employers with measurable proof of proficiency in English. Each of the courses in the program addresses English language skills and abilities necessary for success in academic studies or in careers. Both full and parttime students whose native language is not English are eligible for this program. (Students need to take a minimum of 9 credits of ESL courses to be eligible for this certificate.)

### PROGRAM OUTCOMES

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

1. Demonstrate competence in handling a variety of writing assignments.
2. Comprehend diverse texts which are conceptually abstract and linguistically complex.
3. Understand extended discourse on contextualized and abstract topics such as in lectures, speeches, and reports.
4. Show fluency and comfort in the use of English to express their own ideas.
5. Write with precision and detail.
6. Use spoken English with sufficient accuracy to participate effectively in formal and informal conversations on practical, social and professional topics.

### CURRICULUM

- ESL\* H152 - Reading and Writing V **Credits: 6**
- ESL\* H169 - Writing VI **Credits: 3**<sup>1</sup>  
**or**
- ESL\* H162 - Reading and Writing VI **Credits: 6**<sup>1</sup>
- Elective - Directed Elective (Communication) **Credits: 3**
- ENG\* H101 - Composition **Credits: 3**
- Elective - Directed Elective (Reading/ Writing) **Credits: 3**
- COM\* H100 - Introduction to Communication **Credits: 3**

#### **Directed Electives (Communication)**

Choose one from list.

- ESL\* H139 - Pronunciation III **Credits: 3**
- ESL\* H157 - Oral Communications V **Credits: 3**
- COM\* H172 - Interpersonal Communication **Credits: 3**
- COM\* H173 - Public Speaking **Credits: 3**
- BBG\* H210 - Business Communication **Credits: 3**

#### **Directed Electives (Reading/Writing)**

Choose one from list.

- ENG\* H102 - Literature and Composition **Credits: 3**
- ENG\* H200 - Advanced Composition **Credits: 3**
- ENG\* H202 - Technical Writing **Credits: 3**
- COM\* H157 - American Film **Credits: 3**
- COM\* H226 - Journalism I **Credits: 3**

or

- COM\*H227 - Journalism II
  
  - HIS\* H201 - U.S. History I **Credits: 3**
- or
- HIS\* H202 - U.S. History II **Credits: 3**

**TOTAL CREDIT HOURS: 21**

<sup>1</sup> *Note: Students who take ESL\* H169 instead of ESL\* H162 course will need to take three credits in the Directed Electives for Reading/Writing. Students who take the ESL\* H162 course will NOT need to take three credits in the Directed Electives for Reading / Writing.*

## Advanced Manufacturing Machine Technology (HK60)

The objective of the certificate program is to provide essential skills and knowledge to individuals seeking a position in Advanced Manufacturing. A prerequisite for entry into this certificate program is placement into or above MAT\* H095 and ENG\* H096 or consent of the program director.

### PROGRAM OUTCOMES

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

1. Explain and use machine and shop safety protocols.
2. Select and use precision measuring devices to reliably and accurately measure parts.
3. Read, interpret and produce blueprints and technical drawings, including the use of geometric dimensioning and tolerancing.
4. Apply machine shop math to set up manufacturing and inspection machines.
5. Create the process plan and tool list required to machine and create parts for assembly using hand-tools, manual machines and/or CNC machines.
6. Independently select materials, and set up and operate drill presses, saws, surface grinders, lathes, millers, CNC millers and/or CNC lathes to manufacture parts.
7. Use G and M code language, along with conversational machine programming, to check, modify and/or develop programs for CNC machinery.

### CURRICULUM

#### First Semester

- MFG\* H115 - Safety in the Workplace **Credits: 1**
- MFG\* H120 - Metrology **Credits: 3**
- MFG\* H124 - Blueprint Reading I **Credits: 2**
- MFG\* H153 - Manufacturing Machining: Bench Work **Credits: 2**
- MFG\* H177 - Machine Technology Fundamentals **Credits: 4**
- MFG\* H178 - CNC Fundamentals **Credits: 3**
- MFT H5235 - Manufacturing Math I (non-credit course)
- MFT H5236 - Career Awareness/Development (non-credit course)

#### Second Semester

- MFG\* H105 - Manufacturing Math II **Credits: 3**
- MFG\* H125 - Blueprint Reading II **Credits: 3**
- MFG\* H256 - Manufacturing Machinery - CNC II **Credits: 3**
- MFG\* H277 - Advanced Machine Technology **Credits: 4**
- Directed Elective - A course in CAD\*, MFG\* or QUA\* approved by the instructor **Credits: 3**

**TOTAL CREDIT HOURS: 31**

## **Animation and Motion Graphics (HJ26)**

This certificate provides students with exposure to industry standard software, common workflow, and adaptability in differing environments and workforce cultures. Successful completion of the courses and ultimately the certificate will result in a portfolio of work that will be used by the graduate while seeking employment.

Students are required to achieve a grade of C or better in all coursework.

### **PROGRAM OUTCOMES**

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

1. Demonstrate efficient time management and organizational practices.
2. Practice effective communication both independently and as part of a team.
3. Recognize and use standard animation production workflow to facilitate project completion.
4. Apply industry-standard techniques and tools to complete professional level animation components.
5. Create state-of-the-art special effect techniques used in film and video.
6. Complete significant projects resulting in a robust portfolio or demo reel.

### **CURRICULUM**

- ART\* H111 - Drawing I **Credits: 3**
- ART\* H121 - Two-Dimensional Design **Credits: 3**
- DAT\* H110 - Digital Video Production I **Credits: 3**
- DAT\* H205 - Multimedia Authoring II **Credits: 3**
- DAT\* H212 - 3D Graphics & Animation I **Credits: 3**
- DAT\* H226 - Motion Graphics for Film & Video **Credits: 3**
- DAT\* H234 - 3D Graphics & Animation II **Credits: 3**

### **TOTAL CREDIT HOURS: 21**

BECOMING CONNECTICUT STATE COMMUNITY COLLEGE

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## **Audio/Video Production (HK01)**

The Audio/Video Production Certificate program focuses on the detailed study of audio production, sound design, audio engineering, acoustics, visual composition, lighting design, non-linear video editing, and motion graphics design. A primary function of this program is to serve individuals who have already completed an academic degree or designers currently employed in broadcast media professions interested in skill-enhancement opportunities. Students entering this certificate program should already have a basic foundation in video production and sound design attained through career performance or degree acquisition. Certificate credits may also be applied toward the Digital Arts and Visual & Performing Arts degree programs.

Students must complete the following courses with a grade of "C" or better:

### **PROGRAM OUTCOMES**

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

1. Analyze and evaluate the properties of sound, human hearing, psychoacoustics, electro-acoustic and digital sound reproduction systems.
2. Design and edit analog and digital audio files.
3. Synthesize and apply processes for transforming a concept into a complete video production.
4. Script, produce, edit, and complete original video projects.
5. Design state-of-the-art special effect techniques used in film and video.
6. Complete original projects terminating in deliverable media products with technical documentation.

### **CURRICULUM**

- DAT\* H110 - Digital Video Production I **Credits: 3**
- DAT\* H220 - Acoustics and Sound Design **Credits: 3**  
**or**
- DAT\* H237 - Principles of Sound Recording **Credits: 3**
- DAT\* H224 - Digital Video Production II **Credits: 3**
- DAT\* H226 - Motion Graphics for Film & Video **Credits: 3**
- DAT\* H102 - Introduction to Photography **Credits: 3**
- COM\* H154 - Film Study and Appreciation **Credits: 3**

**TOTAL CREDIT HOURS: 18**

## Automotive Fundamentals (HJ24)

The Automotive Fundamentals program seeks to meet the needs of individuals interested in a basic exposure to and/or an exploratory opportunity in the automotive technology field.

Purpose:

- To provide an understanding of the basic operating principles of an automobile.
- To provide in-depth theory of brake, steering and suspension systems.

Target Population:

- Individuals interested in a basic exposure to automotive systems.
- Individuals interested in an exploratory opportunity in automotive technology.

### PROGRAM OUTCOMES

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

1. Perform mathematics related to the occupation, including but not limited to: algebraic expressions, arithmetic, decimals and graphs.
2. Relate knowledge of theory and safety to accomplish certain tasks related to the occupation.
3. Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
4. Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
5. Relate knowledge of general engine diagnosis and repair, including but not limited to the engine's: cylinder heads, valve train, block, lubrication, and cooling system.
6. Relate knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment and repair.
7. Relate knowledge of general disc and/or drum brake system, hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment, diagnosis, and repair.

### CURRICULUM

- ATP\* H100 - Integrated Automotive Systems **Credits: 3**
- ATP\* H130 - Brakes **Credits: 3**
- ATP\* H150 - Suspension and Steering **Credits: 3**
- Elective - Automotive
- Elective - Mathematics

### TOTAL CREDIT HOURS: 14-15

To ensure appropriate placement, placement test results and course prerequisites should be reviewed with the Program Coordinator and/or advisor.

## **Business Management (HJ38)**

The Management Certificate Program is intended to provide students with a broad background in the field of management. Students completing this certificate program will be qualified to accept entry-level positions in a variety of profit and non-profit fields.

### **PROGRAM OUTCOMES**

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

1. Demonstrate basic knowledge of management, human resources, and organizational development in an entry level management position.
2. Identify the skills needed to organize thoughts and ideas, and demonstrate the ability to communicate, verbally and in writing, in a manner that can be easily understood in the business environment.
3. Solve math problems related to various aspects of management including accounting, finance and operations.
4. Understand and practice the various functions of management as well as the nature and responsibilities of a manager.
5. Develop an understanding of the decision-making process and demonstrate effective decision-making.
6. Demonstrate an ability to define management problems, examine alternatives and decide on the best course of action, and submit these in writing to higher management.
7. Develop a personal philosophy of management, enabling him/her to perform as a manager, staff specialist or as a subordinate.
8. Develop an understanding of the nature of change and how to adapt to the accelerating, global environment.
9. Demonstrate a knowledge and use of technological innovations as they apply to management.
10. Develop an ability to interpret management information from various sources such as financial statements, annual reports, and publications.
11. Demonstrate an understanding of the competitive pressures brought by effectiveness, efficiency and innovation issues on organizations.
12. Demonstrate a responsible attitude in relationships with employers, fellow employees, working groups, and the macro environment.

### **CURRICULUM**

#### **Core Area**

(Required)

- BBG\* H101 - Introduction to Business **Credits: 3**
- BMG\* H202 - Principles of Management **Credits: 3**
- BMG\* H105 - Supervision and Organizational Behavior **Credits: 3**
- ACC\* H113 - Principles of Financial Accounting **Credits: 3**

#### **Elect Three of the Following**

Totaling 9 credits:

- BMG\* H220 - Human Resources Management **Credits: 3**
- BBG\* H210 - Business Communication **Credits: 3**
- BBG\* H231 - Business Law I **Credits: 3**
- BMK\* H201 - Principles of Marketing **Credits: 3**
- BMG\* H105 - Supervision and Organizational Behavior **Credits: 3**
- ACC\* H117 - Principles of Managerial Accounting **Credits: 3**

**TOTAL CREDIT HOURS: 21**

## CADD Modeling 3D (HJ02)

The need to attract more students into engineering is a national concern. The 3D Computer-Aided Drafting Design Certificate continues to prepare a student to use and/or pursue a career using CAD and meets the need of individuals:

- seeking entry-level employment opportunities.
- seeking to upgrade their technical skills.
- preparing for career advancement opportunities.

NVCC's Engineering Technologies programs prepare graduates to be engineering technicians who are able to respond to the changing demands of Connecticut's "high tech" industries.

### PROGRAM OUTCOMES

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

1. Demonstrate a thorough understanding of engineering graphics and conventional drafting practices such as geometric constructions, orthographic, projection, isometric, section, detail, auxiliary views, and geometric dimensioning and tolerancing.
2. Starting with an engineering design concept, create 3D geometric models, develop tolerance requirements, perform basic analysis functions under the supervision of a degreed engineer, and produce professionally finished engineering drawings, suitable for use in manufacturing.
3. Demonstrate a thorough understanding of 3-dimensional wire frame, surface, and solid modeling concepts, procedures, and applications.
4. Perform basic CNC programming.

### CURRICULUM

- MFG\* H106 - Computer-Aided Manufacturing I **Credits: 3**
- CAD\* H200 - 3D CAD Modeling **Credits: 4**
- CAD\* H220 - Parametric Design **Credits: 3**
- Elective - Directed Elective **Credits: 3**

#### Directed Electives

- CAD\* H275 - CAD Animation (3D Studio Max) **Credits: 4**
- CAD\* H285 - Computer Integrated Manufacturing (CIM) I **Credits: 3**
- CAD\* H286 - Advanced Modeling Techniques **Credits: 3**
- CAD\* H294 - Senior Project **Credits: 4**
- MAT\* H185 - Trigonometric Functions **Credits: 3** (or higher level Mathematics course)
- MFG\* H104 - Manufacturing Processes **Credits: 4**
- MFG\* H201 - Computer-Aided Manufacturing II **Credits: 3**

**TOTAL CREDIT HOURS: 13**

## Child & Family Services (HJ14)

The increase in the number of families in crisis and the rising number of maltreated children in our communities make it necessary to have trained Human Services professionals who are skilled and knowledgeable about the unique needs of these populations. The Child & Family Services Certificate curriculum focuses on such areas as juvenile justice, single-parent families, divorce, sexuality, abuse, neglect, poverty, adoption, child protection, disability services, mental health, and cultural diversity.

### PROGRAM OUTCOMES

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

1. Demonstrate a beginning understanding of a range of issues that people in need of human services experience.
2. Utilize critical thinking skills necessary to read and analyze current and future trends as presented in literature in the field of human services and child and family services.
3. Identify socio-cultural dynamics that underlay issues in American society and politics.
4. Demonstrate an ability to utilize the skills, and tasks required for engagement, assessment, case planning, intervention and termination with a diverse population.
5. Present a well organized, comprehensive oral report before a group.
6. Compare and contrast the ecological, functional, and conflict perspectives to understand and analyze social issues such as alienation, poverty, crime and health.
7. Describe how the events and influences of the political, social, and economic climate have shaped the American response to human needs and the historical development of social welfare.
8. Develop an understanding of the expectations of a personal and professional code of ethical standards.
9. Demonstrate an ability to provide referrals to services, concrete information, and emotional support to clients with a goal of promoting empowerment skills.
10. Identify causes, consequences and solutions to inequality due to race, age, gender, religion and economics.

### CURRICULUM

- HSE\* H101 - Introduction to Human Services **Credits: 3**
- HSE\* H202 - Introduction to Counseling and Interviewing **Credits: 3**
- HSE\* H281 - Human Services Field Work I **Credits: 3**
- SOC\* H101 - Principles of Sociology **Credits: 3**
- SOC\* H210 - Sociology of the Family **Credits: 3**

Choose one:

- SOC\* H201 - Contemporary Social Issues **Credits: 3**
- or**
- SOC\* H221 - Social Inequality **Credits: 3**
- HSE\* H115 - Child Advocacy in Human Services **Credits: 3**
- PSY\* H111 - General Psychology I **Credits: 3**
- Elective - Psychology Elective
- PSY\* H258 - Behavior Modification **Credits: 3**

### Directed Electives:

Psychology Electives:

- PSY\* H203 - Child Development **Credits: 3**
- PSY\* H204 - Child & Adolescent Development **Credits: 3**

**TOTAL CREDIT HOURS: 30**

## CNC Machining (HJ04)

Entry-level programmers as well as machinists/tool makers are needed in the college's service region. The CNC Machining Certificate primarily supports two career ladders;

- An individual with no prior experience in machining or manufacturing, who after the completion of the CNC Machining Certificate, should be able to be employed as an entry level programmer.
- An individual with prior experience using manual machines wishing to upgrade skills.

NVCC's Engineering Technologies programs prepare graduates to be engineering technicians who are able to respond to the changing demands of Connecticut's "high tech" industries.

### PROGRAM OUTCOMES

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

1. Demonstrate basic knowledge and understanding of engineering graphics and conventional 2-dimensional drafting practices such as orthographic and isometric projection, section, detail, auxiliary views, and geometric dimensioning and tolerancing.
2. Demonstrate proficiency in the use of CAD software for 2-dimensional applications.
3. Explain concepts and skills required for manufacturing processes.
4. Demonstrate proper setup and procedures for various manufacturing processes.
5. Write basic and advanced MDI NC programs.
6. Produce NC programs using Mastercam®, being able to;
  1. import or generate CAD files
  2. utilize tool and material libraries.
  3. generate tool pass.
  4. verify tool pass.
  5. post process using appropriate controller.

### CURRICULUM

- MFG\* H104 - Manufacturing Processes **Credits: 4**
- CAD\* H150 - CAD 2D (AutoCAD) **Credits: 3**
- MFG\* H106 - Computer-Aided Manufacturing I **Credits: 3**
- MFG\* H201 - Computer-Aided Manufacturing II **Credits: 3**
- Elective - Directed Elective **Credits: 3**
- Elective - Directed Elective **Credits: 3**

#### **Directed Electives:**

Choose two from

- CAD\* H200 - 3D CAD Modeling **Credits: 4**
- CAD\* H220 - Parametric Design **Credits: 3**
- EET\* H102 - Electrical Applications **Credits: 3**
- MAT\* H172 - College Algebra **Credits: 3** (or higher level Mathematics course)
- MEC\* H114 - Statics **Credits: 3**
- MEC\* H251 - Materials Strength **Credits: 4**
- Any MFG\* course
- PHY\* H121 - General Physics I **Credits: 4**
- PHY\* H122 - General Physics II **Credits: 4**
- TCN\* H101 - Introduction to Engineering Technology **Credits: 3**

**TOTAL CREDIT HOURS: 19**

## Computer Networking (HJ42)

This certificate is designed for those individuals who desire an understanding of personal computer networks and their use in the workplace. The course of study will provide the student with a thorough knowledge of local area network design, network management, installation, servicing and support. Students will possess an understanding of PC network technology and programming, set-up, communications, utilities, and system management.

### PROGRAM OUTCOMES

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

1. Provide the student with the personal computer skills necessary to effectively function in today's workplace.
2. Offer a "hands-on" learning experience in the personal computer networking software most commonly used in business and industry.
3. Provide the opportunity for a more advanced technical understanding of personal computer local area networks, their design, installation and management.
4. Provide entry-level opportunities to individuals seeking positions requiring computer networking skills.
5. Upgrade the personal computer knowledge and skills of individuals currently employed.

### CURRICULUM

Choose one:

- CSC\* H205 - VISUAL BASIC I **Credits: 3**
- or
- CSC\* H113 - Programming I **Credits: 3**
  
- CST\* H120 - Introduction to Operating Systems **Credits: 3**
- CST\* H130 - Networking Essentials I **Credits: 3**

### Three Elective Courses

(9 credits) from this list

- CST\* H235 - Network Systems **Credits: 3**
- CST\* H236 - Advanced Network Systems **Credits: 3**
- CST\* H239 - Servicing & Support of Local Area Networks **Credits: 3**<sup>1</sup>
- CST\* H274 - Network Security Technology **Credits: 3**
- CST\* H248 - Practices in Security Management **Credits: 3**
- CSC\* H101 - Introduction to Computers **Credits: 3**

### **TOTAL CREDIT HOURS: 18**

<sup>1</sup> Please see advisor for alternative classes.

## Computer-Aided Drafting 2D (HJ01)

The need to attract more students into engineering is a national concern. The 2D Computer-Aided Drafting Certificate meets the need of individuals interested in a basic exposure to, and/or exploration of, using and applying 2D CAD. This opportunity prepares a student to use and/or pursue a career using CAD in numerous fields. NVCC's Engineering Technologies programs prepare graduates to be engineering technicians who are able to respond to the changing demands of Connecticut's "high tech" industries.

### PROGRAM OUTCOMES

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

1. Demonstrate basic knowledge and understanding of engineering graphics and conventional 2-dimensional drafting practices such as geometric constructions, orthographic, projection, isometric, section, detail, and auxiliary views.
2. Demonstrate proficiency in the use of CAD software for 2-dimensional applications.
3. Explain concepts and requirements for drawings used in the manufacturing process.
4. Create 2D professionally finished drawings from working drawings under the supervision of a senior draftsman.
5. Demonstrate the proper setup and procedures for various manufacturing processes.
6. Apply language arts skills related to the occupation, including but not limited to: critical thinking, reading, and writing.
7. Apply mathematics required for basic drafting and manufacturing applications.

### CURRICULUM

- CAD\* H150 - CAD 2D (AutoCAD) **Credits: 3**
- MFG\* H104 - Manufacturing Processes **Credits: 4**
- ENG\* H101 - Composition **Credits: 3**
- MAT\* H137 - Intermediate Algebra **Credits: 3**
- Elective - Directed Elective **Credits: 3** (Choose one from list below)

#### **Directed Electives:**

- CAD\* H200 - 3D CAD Modeling **Credits: 4**
- CAD\* H220 - Parametric Design **Credits: 3**
- MAT\* H172 - College Algebra **Credits: 3** (or higher level Mathematics course)
- MFG\* H106 - Computer-Aided Manufacturing I **Credits: 3**
- TCN\* H101 - Introduction to Engineering Technology **Credits: 3**

**TOTAL CREDIT HOURS: 16**

## Criminal Justice (HJ75)

This certificate program focuses on skills development for those people who are already in the law enforcement and security services and for those who seek entry-level employment in those services. The program may be pursued on a full or part-time basis. For further information, consult the Division Director or the Program Coordinator.

### PROGRAM OUTCOMES

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

1. Demonstrate the ability to explain the basic structures and functions inherent in the American Criminal Justice system.
2. Demonstrate the ability to identify a variety of official and non-official data sources, and explain and assess the ways in which the data is collected.
3. Identify a variety of current problems faced by law enforcement, courts, and corrections and develop specific proposals to address those problems, supported by reliable data.
4. Identify the protections guaranteed in the first, fourth, fifth, sixth, eighth, and fourteenth amendments and demonstrate an understanding of the U.S. Supreme Court's rulings that outline the specifics of those protections.
5. Identify and explain the impact of practices and events in U.S. history that have influenced the development of the American Criminal Justice system.
6. Demonstrate the ability to explain the various forms of law, the legal elements of crime, and successfully apply legal criteria to complex cases.
7. Demonstrate the ability to identify a range of ethical dilemmas faced by professionals within criminal justice careers, and develop possible actions/solutions to those problems that achieve the various goals inherent within a variety of ethical frameworks.

### CURRICULUM

- CJS\* H101 - Introduction to Criminal Justice **Credits: 3**
- CJS\* H102 - Introduction to Corrections **Credits: 3**
- CJS\* H105 - Introduction to Law Enforcement **Credits: 3**
  
- CJS\* H210 - Constitutional Law **Credits: 3**  
or
- CJS\* H217 - American Legal Systems **Credits: 3**
  
- CJS\* H211 - Criminal Law I **Credits: 3**
- CJS\* H255 - Ethical Issues In Criminal Justice **Credits: 3**
- SOC\* H240 - Criminology **Credits: 3**

### ELECTIVE COURSE IN THE FIELD

Choose any *additional* 3-credit CJS Course from the list of offerings: Course Descriptions

**TOTAL CREDIT HOURS: 24**

## Culinary Arts (HJ77)

The Culinary Arts certificate program consists of 25 or 27 credits of specific skill courses which will prepare people for careers in food services. Students may pursue the program on a full or part-time basis. Students who wish to pursue the Associate in Applied Science degree may apply the certificate credits to the Foodservices Management or Hotel Management degree. As with other certificate programs, the student must first apply to the Admissions Office. Students requiring basic skills development courses in reading, English, or math as determined by placement testing are advised to begin their program with these basic skills courses to ensure success in the required hospitality courses.

Because of the nature of the program, special tuition and fees for foods, etc., may be required. Please refer to the section on course descriptions for prerequisites.

### PROGRAM OUTCOMES

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

1. Identify, organize, plan and allocate resources in foodservice operations such as time, materials and facilities, money, and human resources.
2. Demonstrate a working knowledge of food preparation theories and techniques, and utilize food production knowledge (quantity and quality standards) to meet production requirements of a foodservice operation within a projected budget.
3. Effectively work with others as a member of a team, serving clients and customers, teaching others new skills, exercise leadership behaviors, negotiate, and work with others from diverse backgrounds.
4. Obtain nationally recognized professional certification in food sanitation (as required by State Statute) and food, beverage, & labor cost controls. Demonstrate appropriate personal hygiene.
5. Organize and evaluate information from a variety of sources including food preparation and service techniques and costs, food and related purchasing specifications, catered events planning, research data, and computer applications and Internet output. Communicate the results to others using oral, written, graphic or multimedia methods.
6. Apply concepts of procurement and inventory to purchase, receive, store, issue and distribute food and related items in a foodservice operation.
7. Demonstrate behavior and self-management reflective of personal and professional ethical conduct.
8. Perform basic mathematical computations accurately and appropriately, especially with regard to food and beverage production, purchasing and cost controls.
9. Identify and apply basic concepts of human nutrition and health in the preparation and service of food.
10. Demonstrate work readiness through resume preparation, appropriate business dress and behavior, and assertive communication skills.

### CURRICULUM

- HSP\* H100 - Introduction to the Hospitality Industry **Credits: 3**
- HSP\* H101 - Principles of Food Preparation **Credits: 3**
- HSP\* H102 - Food Production and Purchasing **Credits: 3**

Choose one:

- HSP\* H109 - Food Safety Certification (8 weeks) **Credits: 1**
- or**
- HSP\* H108 - Sanitation and Safety **Credits: 3**<sup>1</sup>
- HSP\* H135 - Service Management **Credits: 3**
- HSP\* H202 - Catering and Event Management **Credits: 3**
- BIO\* H111 - Introduction to Nutrition **Credits: 3**
- Elective - Hospitality Management

### Choose One Baking Elective Below:

- HSP\* H103 - Principles of Baking I **Credits: 3**
- HSP\* H215 - Principles of Baking II **Credits: 3**
- HSP\* H216 - Artisan Bread **Credits: 3**

**TOTAL CREDIT HOURS: 25 OR 27**

<sup>1</sup> Students interested in the degree program should take HSP\* H108

## Dance (HK28)

This certificate in dance is designed for individuals who are looking to enhance their technique, broaden their repertoire, and build their choreographic options and production skills. This program is tailored for those who wish to work or presently work with either children or adults in studio, theatre, early childhood or community service environments. Individuals wishing to broaden their dance foundation for working in the art or entertainment industries also may be served.

Many individuals who teach dance have a limited access to higher education in dance. There is a need for technical as well as artistic training. This program will address these needs by providing a firm foundation in the major aspects of dance so that the student may feel confident in his/her involvement in the dance world.

A Formal Pathways to Dance Certification K-12 has been designed for the public school teacher wishing to obtain the State of Connecticut's pending certification.

Students entering this program should have a basic foundation in dance. If the individual does not possess either a degree or experience, he/she may consider enrolling in the Visual and Performing Arts/Dance Degree option. Credits may be applied toward the degree program. Students may substitute, with permission, other dance offerings to fit their needs.

Students must successfully complete the following credit courses with a "B" average:

### PROGRAM OUTCOMES

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

1. Demonstrate mastery skills and techniques necessary for studio and/or theatre dance.
2. Execute a comprehensive historical repertoire of various dance genres using appropriate movement vocabulary.
3. Demonstrate dance as a means of communication and as a reflection of one's society.
4. Make an accurate assessment of personal & students' (if teaching) technical and artistic strengths and weaknesses.
5. Execute effectively production skills from the choreographic process to the performance.

### CURRICULUM

- DAN\* H101 - History & Appreciation of World Dance **Credits: 3**
- DAN\* H102 - Ballet I: Renaissance to Romantic **Credits: 3**
- Choose one:
- DAN\* H111 - Jazz I: Afro-Caribbean/American **Credits: 3**  
**or**
- DAN\* H112 - Jazz II: Broadway and Film **Credits: 3**
- DAN\* H113 - Modern I: Pioneers of America **Credits: 3**
- DAN\* H202 - Ballet II: Classical to Contemporary **Credits: 3**
- DAN\* H213 - Modern Dance II: Second Generation America **Credits: 3**
- DAN\* H221 - Repertory/Ensemble I **Credits: 3**
- DAN\* H222 - Choreographic Principles/Ensemble I **Credits: 3**

**TOTAL CREDIT HOURS: 24**

## Dietary Supervision (HJ65)

The certificate is designed primarily for health care food service personnel seeking professional development. In order to satisfy industry standards, students must successfully complete the following credit courses with a grade of "C" or better, and pass the ServSafe Food Protection Manager Certification offered through the Educational Foundation of the National Restaurant Association. Credits may be applied toward the degree program in Foodservice Management.

### PROGRAM OUTCOMES

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

1. Identify agents and vectors of food-borne illness.
2. Employ proper sanitary procedures in the purchasing, receiving, storing, issuing, preparing, and serving of food products.
3. Design basic sanitation training for foodservice employees.
4. Discuss federal, state and local regulations and standards of foodservice sanitation.
5. Inspect, from a sanitation viewpoint, equipment and facility design.
6. Qualify for certification in applied foodservice sanitation from the Educational Foundation of the National Restaurant Association.
7. Define, discuss, and employ basic food preparation theories and techniques.
8. Recognize and use a variety of kitchen tools, equipment, and raw food products.
9. Plan, organize, prepare, and evaluate finished food items from the raw state.
10. Interpret, and evaluate written recipes; mathematically expand and reduce these recipes; be able to pre-cost the recipes; understand computer applications regarding these calculations.
11. Define, discuss, and explain the importance of nutrition to health status.
12. Apply acquired nutrition knowledge to daily food preparation.

### CURRICULUM

Choose one:

- HSP\* H101 - Principles of Food Preparation **Credits: 3**<sup>1</sup>  
**or**
- HSP\* H102 - Food Production and Purchasing **Credits: 3**<sup>2</sup>
  
- HSP\* H109 - Food Safety Certification (8 weeks) **Credits: 1**<sup>3</sup>
- BIO\* H111 - Introduction to Nutrition **Credits: 3**

### TOTAL CREDIT HOURS: 7

<sup>1</sup> Course substitution may be allowed with written approval of the Hospitality Management Program Coordinator.

<sup>2</sup> Course substitution may be allowed with written approval of the Hospitality Management Program Coordinator. Prerequisite of HSP\* H101 may be waived with approval of the Hospitality Management Program Coordinator.

<sup>3</sup> HSP\* H108 - Sanitation and Safety (3 credits) may be substituted for HSP\* H109.

## Digital Graphics for Print & Screen (HJ19)

As a result of completing the certificate, students will be able to design two-dimensional digital graphics, three-dimensional object modeling, digital animation sequences, and interactive media applications. Graduates will be qualified to seek positions in the fields of graphic art production, character animation, electronic publishing, broadcasting, and Web design.

Students must complete the following courses with a grade of "C" or better:

### PROGRAM OUTCOMES

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

1. Design, edit and manipulate digital graphics and image files.
2. Utilize advanced techniques for character modeling and the design of virtual space.
3. Design, model, and animate complete 3-dimensional landscapes.
4. Develop state-of-the-art 3D special effects for film and video productions.
5. Complete significant projects terminating in deliverable software/ media products with technical documentation.

### CURRICULUM

- GRA\* H150 - Introduction to Graphic Design **Credits: 3**
- DAT\* H106 - Digital Design **Credits: 3**
- DAT\* H108 - Digital Imaging I **Credits: 3**
- DAT\* H212 - 3D Graphics & Animation I **Credits: 3**
- DAT\* H116 - Interactive Media Design **Credits: 3**
- DAT\* H230 - Digital Imaging II **Credits: 3**
- DAT\* H234 - 3D Graphics & Animation II **Credits: 3**

**TOTAL CREDIT HOURS: 21**

## Disabilities/Mental Health (HJ11)

This program is designed for students who will work in a variety of mental health settings (many of which have been created through deinstitutionalization) in both the mental health and developmental disabilities fields. Students are prepared for positions in a wide variety of agencies such as crisis centers, community residencies, sheltered workshops, halfway houses, or social rehabilitation clubs, which specifically serve this population.

### PROGRAM OUTCOMES

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

1. Demonstrate a beginning understanding of a wide range of diagnoses that relate to people in need of social work service, and be knowledgeable about the necessity of a collaborative relationship with area support.
2. Identify the diverse challenges facing people with mental illness, and use effective advocacy strategies to address such challenges.
3. Describe confidentiality guidelines, and Human Services ethical standards of practice, and recognize his or her own personal limitations and professional behavior as a helper.
4. State the psychological theories that may help the Human Services Provider.
5. Explain what effects the social conditions in the United States have on the developmental disabilities and how to deal with them.
6. Understand sociocultural dynamics that underlay social issues in America today.
7. Be knowledgeable about formal and informal assessment practices that reflect both the needs and strengths of disadvantaged people.
8. Provide disadvantaged people the support and information necessary to build self-esteem and empowerment skills.
9. Apply knowledge and skills needed to work with people with mental illness in a variety of agency settings.
10. Demonstrate the ability to utilize the skills and tasks required for engagement, assessment, case planning, intervention and termination.

### CURRICULUM

- HSE\* H101 - Introduction to Human Services **Credits: 3**
- HSE\* H133 - Disabilities and Mental Health **Credits: 3**
- PSY\* H111 - General Psychology I **Credits: 3**
- SOC\* H101 - Principles of Sociology **Credits: 3**

Choose one:

- SOC\* H201 - Contemporary Social Issues **Credits: 3**
- or
- SOC\* H221 - Social Inequality **Credits: 3**
- Elective - Psychology **Credits: 3**
- HSE\* H202 - Introduction to Counseling and Interviewing **Credits: 3**
- PSY\* H258 - Behavior Modification **Credits: 3**
- PSY\* H245 - Abnormal Psychology **Credits: 3**
- HSE\* H281 - Human Services Field Work I **Credits: 3**

**TOTAL CREDIT HOURS: 30**

## Drug and Alcohol Recovery Counselor (HJ10)

The Drug and Alcohol Recovery Counselor (DARC) program provides education and training for persons who want to become a Certified Addiction Counselor (CAC). The DARC curriculum (30 credits) meets the Connecticut Certification Board (CCB) requirements (300 hours of education, 300 hours of supervised practicum) to become a CAC.

### Employment

Students with a DARC Certificate are highly sought after for entry level opportunities as substance abuse counselors in public and private agencies such as community and residential health facilities, local hospitals, prevention organizations, youth service agencies, and criminal justice system. According to the Occupational Outlook Handbook (2016-17 Ed.), employment of addiction counselors is expected to grow by 22 percent from 2014-2024, much faster than average as addiction counseling services are increasingly covered by insurance. Connecticut is considered one of the states with the highest concentration of jobs in this field with a mean average wage of \$46, 920.

### Curriculum

The DARC Certificate can be completed in 1 ½ or 2 years by completing the core DARC courses (DAR\* H101, DAR\* H111, DAR\* H112, DAR\* H158) in spring and completing the internship and remaining classes in the next academic year. The following DARC courses (DAR\* H101, DAR\* H111, DAR\* H112, DAR\* H158, DAR\* H213, and DAR\* H220) are open to any student at the college, provided they pass the prerequisite of ENG\* H096 with a C or better or test into ENG\* H101. The internship runs fall/spring of each academic year.

### DARC Internship Admission Process

Acceptance into the DARC Internship (DAR\* H251, DAR\* H252) is selective and not guaranteed. All students participate in a screening and interview process (spring semester) which is intended to evaluate whether the applicant possesses specific skills, behaviors and attitudes that are necessary to work with persons with addiction and co-occurring disorders. Interested applicants must have completed or be enrolled in DAR\* H101, DAR\* H111, DAR\* H112, DAR\* H158 and ENG\* H101, and pass with a C or better prior to their internship. Students must complete and submit a formal DARC Application prior to the interview. Applications are distributed during the spring semester (Feb/March) each year. After the interviews, students are formally notified regarding acceptance to internship and ability to register for DAR\* H251 - Counseling Internship I.

### PROGRAM OUTCOMES

Upon successful completion of the DARC Certificate the successful graduate should be able to:

1. Describe the physical, emotional and psychological basis of addiction
2. Define the causes and characteristics of substance dependence and addiction relevant to various populations and cultures
3. Define and apply counseling theories to addiction counseling including Adlerian, Existential, Person-Centered, Harm Reduction, Motivational Interviewing, Gestalt, Reality, Behavior, Cognitive Behavioral, Solution Focused, and Feminist perspectives
4. Define, demonstrate and apply ethical principles and practices according to NAADAC, the CCB, and professional behavior for working directly in the counseling field
5. Demonstrate knowledge and skills related to relapse prevention education and strategies
6. Describe the categories of drugs and effects on psychological functioning
7. Describe characteristics of individuals with co-occurring disorders and specific treatment strategies for working with this population
8. Demonstrate the ability to develop, write and implement treatment plans for individuals with addiction and co-occurring disorders
9. Co-facilitate group counseling sessions under supervision
10. Describe the use of case management in the treatment of persons with addiction and co-occurring disorders
11. Demonstrate ability to develop discharge plans for persons with addiction and co-occurring disorders
12. Demonstrate understanding of the screening, intake and evaluation process in addiction and co-occurring disorders treatment

13. Demonstrate ability to keep accurate records of group/individual process, treatment and discharge planning
14. Describe and demonstrate skills involved in crisis intervention
15. Describe the purpose and availability of self-help groups for persons with addiction/co-occurring disorders
16. Describe the effects of substance abuse on the family, educational needs and stages of recovery for families
17. Describe the stages of change model and its application to treatment of addiction and co-occurring disorders
18. Describe the use of multicultural counseling skills to assessment, treatment and aftercare issues of persons of different gender, ethnicity, disability, adolescents, the elderly, GBLT and homeless
19. Describe the transdisciplinary foundations and competencies required of addiction counselor (TAP 21)
20. Describe the use of medication in the treatment of addiction and co-occurring disorders
21. Demonstrate engagement in community service activities to educate others about the process, dangers and treatment of addiction
22. Discuss the purpose of clinical supervision and participate in the supervision process
23. Write a comprehensive case study based on a biopsychosocial assessment, including diagnosis, treatment plan goals and interventions acceptable for submission to the Connecticut Certification Board (CCB).

## **CURRICULUM**

- DAR\* H101 - Issues in Drug and Alcohol Abuse **Credits: 3**
- DAR\* H111 - Addiction Counseling I **Credits: 3**
- DAR\* H112 - Group Counseling Theory and Techniques **Credits: 3**
- DAR\* H158 - Biology of Addiction **Credits: 3**
- DAR\* H213 - Addiction Counseling II **Credits: 3**
- DAR\* H251 - Counseling Internship I **Credits: 6**
- DAR\* H220 - Co-Occurring Disorders Counseling **Credits: 3**
- DAR\* H252 - Counseling Internship II **Credits: 6**

**TOTAL CREDIT HOURS: 30**

## Early Childhood Education (HJ89)

The certificate program consists of thirty (30) credits in Early Childhood Education. These courses are designed to develop the basic skills and knowledge necessary in Early Childhood Education. The curriculum is a form of a connector, or intensified refresher program, for those who have either been away from academic studies for a while and/or have been engaged in group child care without formal training in the area. For further information, contact the Program Coordinator.

### PROGRAM OUTCOMES

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

1. Utilize the writing skills for developing lessons and composing reports.
2. Compare and contrast various theories as they apply to young children.
3. Apply theories to the physical, social emotion and cognitive development of children.
4. Discuss how theories can be applied to understanding children's behavior.
5. Demonstrate a basic knowledge of Early Childhood Education & the skills required to make objective observations of young children in the classroom setting.
6. Systematically observe and record children's behavior.
7. Define expressive and receptive language and identify the states of language development.
8. Identify various speech and language impairments or delays and set realistic goals for young children in the area of language development.
9. Make an initial assessment of a child's language development.
10. Describe how a child's sensorimotor development influences a child's ability to learn.
11. Recognize possible signs of special needs and changes in health.
12. State interrelationships between child development and the areas of health, safety and nutrition.
13. Discuss control and the prevention of communicable diseases, in the classroom.
14. Provide general accommodations and guidelines to help children meet their special needs.
15. Create a supportive and motivating learning environment.
16. Develop a curriculum using a multisensory approach to teaching.
17. Plan, organize, implement and reflect upon classroom activities on a weekly basis.

### CURRICULUM

- ENG\* H101 - Composition **Credits: 3**
- PSY\* H111 - General Psychology I **Credits: 3**
- PSY\* H203 - Child Development **Credits: 3**
- ECE\* H101 - Introduction to Early Childhood Education **Credits: 3**
- ECE\* H103 - Creative Experiences for Children **Credits: 3**
- ECE\* H109 - Science and Math for Children **Credits: 3**
- ECE\* H141 - Infant/Toddler Growth and Development **Credits: 3**
- ECE\* H176 - Health, Safety and Nutrition **Credits: 3**
- ECE\* H210 - Observation, Participation and Seminar **Credits: 3**
- ECE\* H231 - Early Language and Literacy Development **Credits: 3**

**TOTAL CREDIT HOURS: 30**

## Electronic Music and Audio Production (HJ06)

The certificate in Electronic Music and Audio Production is designed for individuals who wish to learn, or enhance, their skills in the areas of electronic music composition and audio production. The certificate program will serve the specialized needs of students of Digital Arts and Fine Arts as well as individuals interested in electronic music composition and audio production. Students will be exposed to important historical aspects that have influenced compositional styles as well as the impact of technology on music and art.

Students must complete the following courses with a grade of "C" or better:

### PROGRAM OUTCOMES

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

1. Analyze and evaluate the properties of sound, human hearing, and sound reproduction systems.
2. Use principles of acoustics and psychoacoustics to design state-of-the-art sonic environments.
3. Apply industry-standard techniques and tools to complete two-track and multi-track recording projects.
4. Use digital signal processing tools to manipulate and shape sound.
5. Compose original electronic music compositions.

### CURRICULUM

- MUS\* H101 - Music History & Appreciation I **Credits: 3**
- MUS\* H111 - Fundamentals of Music I **Credits: 3**  
or
- MUS\* H115 - Music Theory I **Credits: 3**  
with
- MUS\* H163 - Ear Training I **Credits: 1**
- DAT\* H218 - Electronic Music Composition/ Audio Technology I **Credits: 3**
- DAT\* H219 - Electronic Music Composition/ Audio Technology II **Credits: 3**  
or
- THR\* H226 - Musical Theater Production **Credits: 3**
- DAT\* H220 - Acoustics and Sound Design **Credits: 3**
- DAT\* H237 - Principles of Sound Recording **Credits: 3**

**TOTAL CREDIT HOURS: 18-19**

## **Emerging Media (HJ18)**

The certificate is designed for individuals who have already earned advanced degrees, are currently employed in interactive multimedia/Web design professions, and are looking for skill-enhancement opportunities. Students entering this certificate program should already have a foundation in the core components of multimedia design and development attained through career performance or degree acquisition. If the individual does not possess either a degree or experience, he/she should consider enrolling in the Digital Arts/Multimedia Authoring degree option. Certificate credits may also be applied toward related degree programs.

### **PROGRAM OUTCOMES**

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

1. Utilize current development methods to design advanced multimedia systems.
2. Utilize the phases of the project development life-cycle to assist in the design and completion of multimedia project applications.
3. Conduct a user-needs assessment for the development of multimedia systems.
4. Design and implement accessibility-compliant user interfaces.
5. Design interactive application technologies for the World Wide Web.
6. Complete significant projects terminating in deliverable software products with technical documentation.

### **CURRICULUM**

- DAT\* H104 - Multimedia Authoring I **Credits: 3**
- DAT\* H106 - Digital Design **Credits: 3**
- DAT\* H116 - Interactive Media Design **Credits: 3**
- DAT\* H205 - Multimedia Authoring II **Credits: 3**
- DAT\* H215 - Multimedia Web Authoring **Credits: 3**
- DAT\* H240 - Multimedia Authoring III **Credits: 3**

**TOTAL CREDIT HOURS: 18**

## Engineering Technologies Exploratory (HJ73)

The Engineering Exploratory Certificate is designed to prepare students for Engineering Technology programs and enable them to evaluate career choices in Engineering Technologies.

### PROGRAM OUTCOMES

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

1. Evaluate career choices in Engineering technologies.
2. Discuss the history of technology.
3. Meet with faculty in various Engineering Technologies.
4. Demonstrate proper setup and procedures for various manufacturing processes.
5. Use OrCAD Capture and Layout software.
6. Populate a double sided PC board.
7. Use drafting instruments.
8. Prepare a set of working drawings for a small machine assembly.
9. Differentiate between the various technologies used to complete a major engineering project.

### CURRICULUM

- TCN\* H101 - Introduction to Engineering Technology **Credits: 3**
- MFG\* H104 - Manufacturing Processes **Credits: 4**

Choose one:

- CAD\* H150 - CAD 2D (AutoCAD) **Credits: 3**
- or**
- ARC\* H133 - Technical Drafting

Choose one:

- EET\* H104 - Electronic CAD and Fabrication **Credits: 1**
- or**
- EET\* H102 - Electrical Applications **Credits: 3**<sup>1</sup>

### TOTAL CREDIT HOURS: 11-13

<sup>1</sup> EET\* H102 can be taken instead of EET\* H104, but may require additional math courses.

## Finance (HJ70)

The Finance Certificate is designed for individuals who are seeking professional development and advancement in the financial services area. Students entering this program are assumed to have a business foundation either by career or degree. Credits may be applied toward the degree program in Business Finance. Students must successfully complete the following credit courses with a grade of "C" or better.

### PROGRAM OUTCOMES

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

1. Demonstrate knowledge of business finance including financial planning, long and short-term financing, fixed assets management, and management of long-term debt.
2. Identify strategies and practices in government and consumer financing.
3. Demonstrate knowledge of monetary, fiscal and debt management policies of government.
4. Demonstrate knowledge of basic analytical techniques, problem-solving and decision-making.
5. Identify the basic concepts of Asset Management and be able to provide an overview of Liability-and Deposit-Management as relates to the financial services industry.
6. Identify techniques for managing working capital and demonstrate knowledge of the capital budgeting process.
7. Provide an understanding of how the United States economic system is organized, how it functions and how it impacts the global economy.
8. Identify the major goals and functions of financial management.
9. Understand the principle components of financial analysis in all levels of the business organization.
10. Demonstrate an understanding of the interrelationships between Finance and all other areas within a business, including working with other departments to achieve overall strategic goals.

### CORE AREA

(Required)

- BFN\* H201 - Principles of Finance **Credits: 3**
- ECN\* H250 - Money and Banking **Credits: 3**
- BFN\* H220 - Financial Management **Credits: 3**
- BFN\* H203 - Investment Principles **Credits: 3**

### One Elective to be Chosen From:

- BRE\* H205 - Real Estate Law **Credits: 3**
- BFN\* H208 - Financial Analysis

### **TOTAL CREDIT HOURS: 15**

Further information can be obtained by contacting the Chair of the Management Department.

## Forensic Studies - (HJ39)

This program prepares students with the educational background needed for entry level positions into the field. Current police officers can also use this Certificate as additional training needed for career advancement.

### PROGRAM OUTCOMES

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

1. Demonstrate the ability to explain the basic structures and functions inherent in the American Criminal Justice system, and the broad range of roles and responsibilities of those professionals working within the field of forensic sciences, including criminal investigators
2. Demonstrate the ability to identify a range of ethical dilemmas faced by professionals within criminal justice careers, and develop possible actions/solutions to those problems that achieve the various goals inherent within a variety of ethical frameworks.
3. Demonstrate a basic understanding of the principles and practices inherent within the fields of science that contribute to the endeavors of forensic science.
4. Demonstrate basic understanding of the complexities involved in serving the needs of crime victims, the unique challenges inherent in victim relationships, and the importance and relevance of cultural competency.
5. Demonstrate competency in computer concepts, topics, and trends. Thus, they will possess basic skills within one of the largest fields of forensic science.

### CURRICULUM

- CJS\* H101 - Introduction to Criminal Justice **Credits: 3**
- CJS\* H220 - Criminal Investigation **Credits: 3**
- CJS\* H225 - Forensic Science **Credits: 3**
- CJS\* H255 - Ethical Issues In Criminal Justice **Credits: 3**
- CJS\* H280 - Victimology **Credits: 3**
- CSC\* H101 - Introduction to Computers **Credits: 3**

**Choose one of the following courses:**

- BIO\* H105 - Introduction to Biology **Credits: 4**  
or
- BIO\* H115 - Human Biology & Lab **Credits: 4**  
or
- BIO\* H121 - General Biology I - Cellular Biology **Credits: 4**

### ELECTIVE COURSES IN THE FIELD (4 CREDITS)

Any 4-credit course from: Scientific Reasoning

**TOTAL CREDITS HOURS: 26**

## **Fundamentals of Machine Technology (HJ20)**

The objective of the certificate program is to provide entry level skills and knowledge to individuals seeking a background in the machine technology profession. A prerequisite for entry into this certificate program is placement into or above both MAT\* H095 and ENG\* H096 or consent of the program director. This certificate provides entry level skills to those seeking positions in machine technology environments.

### **PROGRAM OUTCOMES**

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

1. Explain and use machine and shop safety protocols.
2. Use precision measuring devices to reliably and accurately measure parts.
3. Read and produce blueprints and technical drawings.
4. Apply machine shop math to set up manufacturing and inspection machines.
5. Use a process plan and tool list to machine and create parts for assembly using hand-tools, manual machines and/or CNC machines.
6. Set up and operate drill presses, saws, surface grinders, lathes, millers, CNC millers and/or CNC lathes to manufacture parts.
7. Use G and M code language, along with conversational machine programming, to check programs for CNC machinery.

### **CURRICULUM**

- MFG\* H115 - Safety in the Workplace **Credits: 1**
- MFG\* H120 - Metrology **Credits: 3**
- MFG\* H124 - Blueprint Reading I **Credits: 2**
- MFG\* H153 - Manufacturing Machining: Bench Work **Credits: 2**
- MFG\* H177 - Machine Technology Fundamentals **Credits: 4**
- MFG\* H178 - CNC Fundamentals **Credits: 3**
- MFT H5235 - Manufacturing Math I (non-credit course)
- MFT H5236 - Career Awareness/Development (non-credit course)

**TOTAL CREDIT HOURS: 15**

## General Automotive Services (HK10)

The General Automotive Service program is designed to accommodate individuals desiring an understanding of engine operation and repair, along with knowledge of automotive electrical, brake, steering and suspension systems.

Purpose:

- To provide an understanding of automobile engine operation and repair.
- To provide an understanding of automotive electrical theory and its application.
- To provide in-depth theory of brake, steering and suspension systems.
- To provide an understanding of the relationship between scientific principles and their application in the automobile.

Target Population:

- Individuals seeking entry-level employment opportunities in the automotive service field.
- Individuals seeking to upgrade their technical skills.
- Individuals preparing for career advancement opportunities in the automotive service field.

### PROGRAM OUTCOMES

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

1. Perform mathematics related to the occupation, including but not limited to: algebraic expressions, arithmetic, decimals and graphs.
2. Use scientific methods and critical thinking to solve problems in science related to the occupation, including but not limited to: electricity, chemical reactions, heat, motion, and hydraulics.
3. Demonstrate workplace skills related to the occupation, including but not limited to: preparing a resume, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics and teamwork.
4. Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
5. Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
6. Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
7. Apply knowledge of general engine diagnosis and repair, including but not limited to the engine's: cylinder heads, valve train, block, lubrication, and cooling system.
8. Apply knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment and repair.
9. Apply knowledge of general disc and/or drum brake system, hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment, diagnosis, and repair.
10. Apply knowledge of general electrical/electronic systems, including but not limited to, starting, charging, lighting, wiring, accessories, diagnosis and repair.

### CURRICULUM

- ATP\* H100 - Integrated Automotive Systems **Credits: 3**
- ATP\* H110 - Automotive Electrical Systems **Credits: 3**
- ATP\* H120 - Engine Repair **Credits: 3**
- ATP\* H130 - Brakes **Credits: 3**
- ATP\* H150 - Suspension and Steering **Credits: 3**
- ATP\* H290 - Cooperative Work Experience I **Credits: 3**

**TOTAL CREDIT HOURS: 18**

To ensure appropriate placement, placement test results and course prerequisites should be reviewed with the Program Coordinator and/or advisor.

## Gerontology (HK11)

Social services for the elderly are provided by many different kinds of agencies with different purposes, client groups, funding sources, and philosophies. The curriculum which leads to the certificate in Human Services, Gerontology Option is designed to provide an understanding of the behavior and needs of older persons.

### PROGRAM OUTCOMES

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

1. Be knowledgeable about the issues surrounding the universal prospect of death and about the mourning process.
2. Have a beginning understanding of a wide range of diagnoses that relate to people in need of social work service and be knowledgeable about the necessity of a collaborative relationship with area support systems.
3. Identify social and psychological aspects and processes of aging.
4. Locate local, state, and federal programs and services available for the solution of the problems of the elderly.
5. Explain what effects the social conditions in the United States have on the aging.
6. Understand sociocultural dynamics that underlay social issues in America today.
7. Provide elders the support and information necessary to build self-esteem and empowerment skills.
8. Demonstrate the ability to utilize the skills and tasks required for engagement, assessment, case planning, intervention and termination.

### CURRICULUM

- HSE\* H171 - Death and Dying **Credits: 3**
- HSE\* H101 - Introduction to Human Services **Credits: 3**
- HSE\* H170 - Introduction to Gerontology **Credits: 3**
- SOC\* H101 - Principles of Sociology **Credits: 3**
- PSY\* H111 - General Psychology I **Credits: 3**

Choose one:

- SOC\* H201 - Contemporary Social Issues **Credits: 3**  
**or**
- SOC\* H221 - Social Inequality **Credits: 3**
  
- HSE\* H202 - Introduction to Counseling and Interviewing **Credits: 3**
- Elective - Psychology Elective **Credits: 3**
- PSY\* H258 - Behavior Modification **Credits: 3**
- HSE\* H281 - Human Services Field Work I **Credits: 3**

**TOTAL CREDIT HOURS: 30**

## Horticulture (HK18)

The Horticulture Certificate program is designed to develop the skills and understanding needed for students to take responsible positions in grounds maintenance, tree and shrub nurseries, wholesale plant growing, landscaping, garden centers and retail greenhouses, golf courses, lawn care, and parks/recreation departments. The certificate will be awarded on completion of all courses and a cooperative work experience.

### PROGRAM OUTCOMES

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

1. Identify common trees and shrubs, ground covers, various annuals, biennials, and perennials by botanical and common names, and describe the outstanding characteristics of each; summarize landscape, garden center and greenhouse uses; and know the cultural requirements of these plants.
2. Identify foliage plants commonly used indoors by botanical and common names, state distinguishing characteristics of each, and describe their use and culture in various indoor landscape areas.
3. Control the common weeds, insects, pests and diseases of ornamentals and turf.
4. Select the proper procedures, define the physiological basis, and describe practical applications of the reproduction of plants by asexual and sexual methods.
5. Describe proper design and operation of greenhouse environmental systems, and evaluate their advantages and disadvantages in commercial production.
6. Demonstrate a responsible attitude in relationships with employers, fellow employees, and toward the world of work.
7. Select appropriate techniques for the establishment and management of lawns and utility turf areas.
8. Manage the procedures used in landscape constructions and in the maintenance of small engines.
9. Design flower beds, and mixed borders; place trees and shrubs for a variety of gardens for both residential and commercial properties.
10. Access available resources to incorporate technological innovations.
11. Demonstrate those skills, abilities and values which allow a person to function as a free and responsible citizen.
12. Apply mathematics to calculating area, volume and application rates of fertilizers and pesticides.
13. Evaluate site conditions to design attractive, functional landscapes.

### CURRICULUM

- HRT\* H101 - Landscape Construction **Credits: 4**
- HRT\* H102 - Woody Plants **Credits: 3**
- HRT\* H103 - Herbaceous Plants **Credits: 3**
- HRT\* H104 - Soil Systems **Credits: 3**
- HRT\* H202 - Landscape Design I **Credits: 3**<sup>1</sup>
- HRT\* H207 - Landscape Maintenance **Credits: 3**
- HRT\* H222 - Greenhouse Operations & Management **Credits: 4**
- HRT\* H290 - CWE/Horticulture Co-Op **Credits: 3**
- Elective - Horticulture **Credits: 3** (Choose one from list below)

### Horticulture Electives

- HRT\* H105 - Fruit and Vegetable Production **Credits: 3**
- HRT\* H106 - Fruit Production **Credits: 3**
- HRT\* H107 - Vegetable and Herb Production **Credits: 3**
- HRT\* H115 - Turf Management **Credits: 3**
- HRT\* H124 - Floral Design I **Credits: 3**
- HRT\* H203 - Landscape Design II **Credits: 3**
- HRT\* H204 - Computers in Landscape Design **Credits: 3**

- HRT\* H206 - Landscaping Small Properties **Credits: 3**
- HRT\* H208 - Landscape Contract Administration **Credits: 3**
- HRT\* H215 - Integrated Pest Management **Credits: 3**
- HRT\* H219 - Arboriculture **Credits: 3**
- HRT\* H224 - Plant Propagation & Hybridization **Credits: 4**
- HRT\* H240 - Nursery Management **Credits: 3**
- HRT\* H250 - Hydroponic Production **Credits: 3**

**TOTAL CREDIT HOURS: 29**

<sup>1</sup> Prerequisite HRT\* H102 - Woody Plants or waiver by coordinator.

## Landscape Design (HK30)

The Horticulture Landscape Design Certificate is designed to prepare students for certification as Professional Landscape Designers. The certificate is designed to develop those skills in plant identification and culture, landscape construction skills, the maintenance of landscapes, as well as hand drawing, sketching, technical drafting, computer aided design, and portfolio assessments. This program is affiliated with the Association of Professional Landscape Designers (APLD).

### PROGRAM OUTCOMES

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

1. Identify the current repertoire of trees, shrubs, ground covers, vines, annuals, biennials, and perennials by botanical and common names, describe the outstanding characteristics of each; summarize landscape uses, know their cultural requirements; design herbaceous and mixed borders.
2. Evaluate landscape areas and needs; select and place plants in a design; design and place hardscape features in a landscape; draw plans using traditional equipment and computeraided tools; outline techniques for low maintenance needs in both residential and commercial properties.
3. Transfer portions of aerial designs into perceptual designs, using sketching techniques; develop a plan for pricing out landscape projects and bids; demonstrate oral skills to clients on design ideas; design landscape garden plans using computer design programs; manipulate computer designs to illustrate to landscape design development over time.
4. Demonstrate how to bring color to the landscape through the four seasons with herbaceous and woody plants; how to establish and manage mass planting through the year.
5. Demonstrate and explain how to prune deciduous and evergreen trees and shrubs for a variety of purposes.
6. Interpret fertilizer needs for particular plants from the general recommendations of a soil analysis; recognize signs of nutrient deficiency.
7. Demonstrate techniques for designing small properties; plan and select plants for different kinds of gardens (examples: for woods, meadows, marshes, water, rock gardens).
8. Relate the historical development of the garden through the ages and be able to recognize the contributions and influences of great designers on gardens today.
9. Relate and demonstrate how to use all the subtleties of color and design in the garden in two dimensional and three dimensional formats.
10. Initiate, develop and present a significant design as an independent study project.
11. Demonstrate a responsible attitude in relationships with employers, fellow employees, and toward the world of work.
12. Access available resources to incorporate technological innovations.
13. Be prepared for certification as a Professional Landscape Designer.
14. Initiate landscape design through computer-aided programs.

### CURRICULUM

- HRT\* H101 - Landscape Construction **Credits: 4**
- HRT\* H102 - Woody Plants **Credits: 3**
- HRT\* H103 - Herbaceous Plants **Credits: 3**
- HRT\* H104 - Soil Systems **Credits: 3**
- HRT\* H202 - Landscape Design I **Credits: 3**
- HRT\* H204 - Computers in Landscape Design **Credits: 3**
- HRT\* H206 - Landscaping Small Properties **Credits: 3**
- HRT\* H207 - Landscape Maintenance **Credits: 3**
- HRT\* H208 - Landscape Contract Administration **Credits: 3**

Choose one:

- ART\* H111 - Drawing I **Credits: 3**
- or

- HRT\* H203 - Landscape Design II Credits: 3

**TOTAL CREDIT HOURS: 28**

## Law Enforcement (HJ17)

The objective of this Certificate program is to provide training to students interested in pursuing a career in law enforcement as a police officer. This program may also be used as additional training for police officers who are trying to advance their careers and work towards promotion.

### PROGRAM OUTCOMES

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

1. Demonstrate the ability to explain the basic structures and functions inherent in the American Criminal Justice system, and the broad range of roles and responsibilities of American law enforcement.
2. Identify the protections guaranteed in the first, fourth, fifth, sixth, eighth, and fourteenth amendments and demonstrate an understanding of the U.S. Supreme Court's rulings that outline the specifics of those protections.
3. Demonstrate the ability to explain the various forms of law, the legal elements of crime, and successfully apply legal criteria to complex cases.
4. Demonstrate the ability to identify a range of ethical dilemmas faced by professionals within criminal justice careers, and develop possible actions/solutions to those problems that achieve the various goals inherent within a variety of ethical frameworks.
5. Demonstrate basic understanding of the principles and practices inherent in sound criminal investigation practices.
6. Demonstrate a basic understanding of the principles and practices inherent within the fields of science that contribute to the endeavors of forensic science.
7. Demonstrate basic understanding of the complexities involved in serving the needs of crime victims, the unique challenges inherent in victim relationships, and the importance and relevance of cultural competency.

### CURRICULUM

- CJS\* H101 - Introduction to Criminal Justice **Credits: 3**
- CJS\* H105 - Introduction to Law Enforcement **Credits: 3**
- CJS\* H210 - Constitutional Law **Credits: 3**  
or
- CJS\* H217 - American Legal Systems **Credits: 3**
- CJS\* H211 - Criminal Law I **Credits: 3**
- CJS\* H220 - Criminal Investigation **Credits: 3**
- CJS\* H225 - Forensic Science **Credits: 3**
- CJS\* H255 - Ethical Issues In Criminal Justice **Credits: 3**
- CJS\* H280 - Victimology **Credits: 3**

**TOTAL CREDIT HOURS: 24**

### NOTE

Students are required to achieve a grade of C or better in CJS\* H101 and CJS\* H255

## **Lean Manufacturing (HN13)**

The Lean Manufacturing Certificate was developed as a response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in the areas of lean management. This certificate provides students with the skills that will increase their employability in the manufacturing field as well as set them on a path that will enable them to further their education.

### **CURRICULUM**

- MFG\* H171 - Introduction to Lean Manufacturing **Credits: 3**
- MFG\* H271 - Advanced Lean Manufacturing **Credits: 3**

**TOTAL CREDIT HOURS: 6**

## Legal Studies/Paralegal (HJ69)

The Legal Studies/Paralegal certificate program is designed to develop and enhance the skills and understanding needed to fill responsible positions in banks, insurance companies, real estate companies, private law offices, corporate law offices, and local, state and federal government legal departments. The Legal Studies/Paralegal Certificate program is a member of the American Association for Paralegal Education. See admission requirements to the Legal Studies/Paralegal Certificate Program below.

The topic of ethics and the paralegal's role in the legal profession are emphasized throughout the courses in the program.

Eight courses are required for completion of the Legal Studies/Paralegal Certificate Program. The certificate will be awarded on completion of the following courses:

### PROGRAM OUTCOMES

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

1. Interview client(s) and condense fact patterns into a concise legal analysis.
2. Explain the structure of the State and Federal Court system, including Trial Court function(s) and Appellate Court functions.
3. Identify historical, sociological and political trends that have changed, and continue to change, the American legal system.
4. Explain the role of forensic science in evidentiary matters pertaining to civil and criminal litigation.
5. Research a particular fact pattern to identify all legal issues, and describe the competing arguments that can be advanced by parties to a controversy.
6. Explain the role of the judiciary in providing a balance to the legislative and executive functions of government.
7. Differentiate between liability issues and damage issues in legal controversies.
8. Identify inherent restrictions in the civil and criminal legal process that inhibit the ability of the legal system to function as a tool of social justice.
9. Identify and present a logical plan for a client taking into account the strengths and weaknesses of adopting various legal positions.
10. Maintain organized financial data concerning a client's case file.
11. Foster good relations between the law firm, department, or public entity and the clients served.
12. Demonstrate organization in handling multiple client case files and maintain strict docket control for timely case file review.
13. Understand conflict resolution as viewed from the theoretical perspective and the pragmatic perspective.
14. Apply common law principles and statutory principles where appropriate.
15. Recognize fundamental tort and contract principles that are found in different areas of the law.

### CURRICULUM

- LGL\* H101 - Introduction to Paralegalism **Credits: 3**
- LGL\* H102 - Legal Research and Writing **Credits: 3**
- LGL\* H104 - Real Estate Practice **Credits: 3**
- LGL\* H202 - Advanced Legal Research and Writing **Credits: 3**
- LGL\* H209 - Probate Practice and Estate Administration **Credits: 3**
- LGL\* H208 - Litigation **Credits: 3**

#### Choose Two of the Following:

- LGL\* H270 - Cooperative Education Work Experience **Credits: 3**
- LGL\* H210 - Family Law **Credits: 3**
- LGL\* H204 - Criminal Procedure **Credits: 3**
- LGL\* H230 - Advanced Legal Issues Seminar **Credits: 3**
- LGL\* H206 - Bankruptcy Law **Credits: 3**

**TOTAL CREDIT HOURS: 24**

## Management Information Systems (HJ13)

This certificate program will prepare students for applications and system programming positions within a business environment. Courses are designed to offer students immediate positions in industry, and will also provide a solid foundation for continuation in our two year associate's degree in Computer Information Systems Technology.

### PROGRAM OUTCOMES

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

1. Acquire a familiarization with terminology and structure of various programming languages.
2. Demonstrate the ability to use software tools for program development.
3. Write, compile and run effective business applications.
4. Troubleshoot common programming problems and test solutions.
5. Demonstrate a basic understanding of relational database concepts.

### CURRICULUM

#### Two Required Courses

(6 credits)

Choose one:

- CSC\* H205 - VISUAL BASIC I **Credits: 3**
- or**
- CSC\* H113 - Programming I **Credits: 3**
- CSC\* H231 - Database Design I **Credits: 3**

#### Four Elective Courses

(12 credits) selected from this list

- CSC\* H101 - Introduction to Computers **Credits: 3**
- CSC\* H183 - Information Systems in Organizations **Credits: 3**

Choose one:

- CSC\* H205 - VISUAL BASIC I **Credits: 3**
- or**
- CSC\* H113 - Programming I **Credits: 3** *(if both are taken, one can be used to meet the 4 elective requirement)*
- CSC\* H206 - VISUAL BASIC II **Credits: 3**
- CSC\* H211 - VB & ASP .NET Web Programming **Credits: 3**
- CSC\* H227 - Web Programming with Java **Credits: 3**
- CSC\* H228 - Mobile Device Programming **Credits: 3**
- CSC\* H229 - Programming II **Credits: 3**
- CSC\* H250 - Systems Analysis and Design **Credits: 3**
- CSC\* H252 - Information Systems Project Management **Credits: 3**
- CSC\* H237 - Database Programming with VB.NET **Credits: 3**
- CST\* H130 - Networking Essentials I **Credits: 3**

**TOTAL CREDIT HOURS: 18**

## Marketing Electronic Commerce (HJ63)

The world of Marketing is undergoing great change driven by the "Internet - Electronic Marketplace." The Internet is fast becoming the ultimate distribution system to disseminate marketing data, identify customers and provide salesforce attention, customer service activity, and ordering. This short-term certificate is designed to provide you with the basic electronic commerce skills to effectively prepare and execute electronic commerce "Marketing Plans." The critical skill areas emphasized are: the understanding of marketing, customer service capabilities, sales skills, computer expertise in electronic commerce, verbal and written communications abilities, and logical analysis problem-solving.

### PROGRAM OUTCOMES

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

1. Identify and develop solutions to meet customers' needs via the world wide web and electronic commerce.
2. Apply the concepts of "Total Quality Management" and "Total Customer Service" to electronic commerce.
3. Prepare marketing material to be disseminated via electronic modalities to include: literature, proposals, point-of-sale literature, and promotion plans for the consumer, trade and sales force.
4. Possess the following computer skills: database management, wordprocessing, internet marketing, desktop publishing, and sales and customer service system configuration/ operations.

### CURRICULUM

- BMK\* H220 - Sales **Credits: 3**
- BMK\* H201 - Principles of Marketing **Credits: 3**
- BMK\* H207 - Consumer Behavior **Credits: 3**
- BMK\* H216 - Internet Marketing **Credits: 3**<sup>1</sup>
- CSA\* H207 - Computer Applications in Management & Marketing **Credits: 3**<sup>1</sup>

### TOTAL CREDIT HOURS: 15

<sup>1</sup> A proficiency in computer skills is required and encompasses Windows, electronic spreadsheet, database applications and the Internet. This can be satisfied by work experience in these programs, a Web Page Design Certificate, a Webmaster Certificate, successful completion of CSA\* H105 - Introduction to Software Applications (or similar course), or permission of the Chair of the Management Department or Division Director.

## Modern Manufacturing Design (HJ15)

The Modern Manufacturing Design Certificate is designed for students seeking employment and advancement in support positions in a variety of manufacturing disciplines which require CAD, manufacturing, and mathematics skills. The credit hour requirement for this certificate facilitates completion within one year, and therefore meets the Workforce Investment Act criteria for training programs.

### PROGRAM OUTCOMES

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

1. Demonstrate basic knowledge and understanding of engineering graphics and conventional 2-dimensional drafting practices such as orthographic and isometric projection, section, detail, auxiliary views, and geometric dimensioning and tolerancing.
2. Demonstrate proficiency in the use of Cad software for 2-dimensional applications.
3. Explain concepts and skills required for manufacturing processes.
4. Demonstrate proper setup and procedures for various manufacturing processes.
5. To demonstrate the ability to use appropriate mathematical and computational skills needed for entry-level work in manufacturing.
6. To combine oral, graphical, and written communication skills to present and exchange information effectively and to direct manufacturing activities.

### CURRICULUM

- CAD\* H150 - CAD 2D (AutoCAD) **Credits: 3**
- MFG\* H104 - Manufacturing Processes **Credits: 4**
- TCN\* H101 - Introduction to Engineering Technology **Credits: 3**
- CAD\* H220 - Parametric Design **Credits: 3**
- MFG\* H120 - Metrology **Credits: 3**
- MAT\* H135 - Topics in Contemporary Mathematics **Credits: 3** (or higher level Mathematics course)

**TOTAL CREDIT HOURS: 19**

## Object-Oriented Programming (HK23)

This certificate program recognizes the need to educate students in the area of object-oriented programming and systems design. Students will take courses in the area of Object-Oriented Systems (OOS). Programming languages include C++, VISUAL BASIC, and JAVA. An introduction to client/server systems applications is also included in this certificate program. Courses are designed to offer students immediate positions in industry, and will also provide a solid foundation for continuation in our two-year associate's degree in Computer Information Systems Technology.

### PROGRAM OUTCOMES

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

1. Demonstrate the use of objects in application programs.
2. Define and implement efficient object-oriented solutions using C++, JAVA, and Visual Basic.
3. Write, compile, and execute programs using C++, JAVA, and Visual Basic programming languages.
4. Create applications using object-oriented features.
5. Use inheritance and interfaces to create robust, reusable, programming code.
6. Demonstrate a basic understanding of relational database concepts.

### CURRICULUM

#### Two Required Courses

(6 credits)

Choose one:

- CSC\* H205 - VISUAL BASIC I **Credits: 3**
- or**
- CSC\* H113 - Programming I **Credits: 3**
  
- CSC\* H231 - Database Design I **Credits: 3**

#### Four Elective Courses

(12 credits) from this list

- CSC\* H101 - Introduction to Computers **Credits: 3**
  
- Choose one:
- CSC\* H205 - VISUAL BASIC I **Credits: 3**
- or**
- CSC\* H113 - Programming I **Credits: 3**
  
- CSC\* H206 - VISUAL BASIC II **Credits: 3**
- CSC\* H211 - VB & ASP .NET Web Programming **Credits: 3**
- CSC\* H213 - Object-Oriented Programming Using C++ **Credits: 3**
- CSC\* H214 - Advanced C++ Programming **Credits: 3**
- CSC\* H220 - Object Oriented Programming Using Java
- CSC\* H227 - Web Programming with Java **Credits: 3**
- CSC\* H228 - Mobile Device Programming **Credits: 3**
- CSC\* H229 - Programming II **Credits: 3**
- CSC\* H237 - Database Programming with VB.NET **Credits: 3**

**TOTAL CREDIT HOURS: 18**

## **Principles of Manufacturing (HJ16)**

The Principles of Manufacturing certificate is as a bridge-in to the two-semester Advanced Manufacturing Machine Technology certificate for high school students in dual enrollment programs. Over the past 10+ years, Naugatuck Valley Community College (NVCC) has partnered with Waterbury Public Schools in the College Connections program.

The Principles of Manufacturing certificate curriculum can be completed in the two-year time frame of College Connections, is at the appropriate academic level, would help students gain and be productive in entry-level manufacturing positions, would prepare the students for two National Association of Metalworking Skills (NIMS) certification tests, and prepare students for entry into the Advanced Manufacturing Machine Technology (AMMT) program as all 11 credits are part of the AMMT program.

### **PROGRAM OUTCOMES**

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

1. Explain and use machine shop safety protocols, such as protective personal equipment, machine guarding, and lock out/tag out.
2. Select and use precision measuring devices, such as calipers, micrometers and pin gauges, to reliably and accurately measure parts.
3. Read and produce blueprints and technical drawings.
4. Develop a basic process plan, including layout, for a manually-formed part.
5. Select materials and use hand tools to scribe and manually form parts.

### **CURRICULUM**

- MFG\* H115 - Safety in the Workplace **Credits: 1**
- MFG\* H120 - Metrology **Credits: 3**
- MFG\* H124 - Blueprint Reading I **Credits: 2**
- MFG\* H126 - Drafting **Credits: 3**
- MFG\* H153 - Manufacturing Machining: Bench Work **Credits: 2**

**TOTAL CREDIT HOURS: 11**

## **Supply Chain Management (HN14)**

The Supply Chain Management Certificate was developed as a response to the expressed future and current needs of the manufacturing community. The U.S. Department of Labor along with local industry has demonstrated a demand and need for courses in supply chain management. This certificate provides students with the skills that will increase their employability in the manufacturing field as well as set them on a path that will enable them to further their education.

### **CURRICULUM**

- MFG\* H172 - Introduction to Lean Supply Chain Management **Credits: 3**
- MFG\* H272 - Implementing Lean Supply Chain Management **Credits: 3**

**TOTAL CREDIT HOURS: 6**

## Sustainable Food Systems (HK33)

The Sustainable Food Systems certificate provides students with career skills in the agriculture and food-service industry. This program will allow students to pursue professional certification as a Qualified Food Operator and Commercial Pesticide Applicator. Students will learn the fundamentals of food safety, fruit and vegetable production, integrated pest management, and associated food service issues. This certificate combines the resources of two strong, viable NVCC programs (Horticulture and Hospitality) and will provide students with career skills in both the agriculture and food-service industry. To earn this certificate, Horticulture students must take one additional class in Hospitality; Hospitality students may choose from several Horticulture courses. Graduates will be qualified to work in a variety of positions associated with local food processing facilities, which include farm-table operations, agricultural enterprises, and wholesale food distribution centers.

Other relevant employment opportunities include nursery worker, nursery manager, farm workers, farm managers, food service supervisor, food science technician and pesticide handlers among others. Data was collected from the U.S. Department of Labor, the U.S. Bureau of Labor Statistics, and the CT Department of Labor.

### PROGRAM OUTCOMES

## Program Outcomes - (HK33)

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

1. Apply the commercial food safety standards for preventing food-borne illness, including associated legal regulations and national SERVSAFE certification.
2. Apply proper safety protocols for pesticide application and handling utilizing national integrated pest management standards. These applications will be in-class and field based studies which include biological control mechanisms and congenital chemical applications.
3. Demonstrate proficiency in agricultural operations which will include equipment operation and troubleshooting, nutrient analysis, and crop scheduling/succession.
4. Apply proper production methods for fruit and vegetable crops as it relates to commercial agricultural enterprises.

### CURRICULUM

- HSP\* H109 - Food Safety Certification (8 weeks) **Credits: 1**
- HRT\* H106 - Fruit Production **Credits: 3**
- HRT\* H107 - Vegetable and Herb Production **Credits: 3**
- HRT\* H215 - Integrated Pest Management **Credits: 3**
- Directed Electives **Credits: 6** - Please choose two from list below

#### Directed Electives

- HSP\* H101 - Principles of Food Preparation **Credits: 3**
- HSP\* H102 - Food Production and Purchasing **Credits: 3**
- HSP\* H103 - Principles of Baking I **Credits: 3**
- HSP\* H125 - Wine and Viticulture I **Credits: 3**
- HSP\* H216 - Artisan Bread **Credits: 3**
- HSP\* H237 - Hospitality Marketing **Credits: 3**
- HRT\* H222 - Greenhouse Operations & Management **Credits: 4**
- HRT\* H224 - Plant Propagation & Hybridization **Credits: 4**
- HRT\* H290 - CWE/Horticulture Co-Op **Credits: 3**
- ACC\* H113 - Principles of Financial Accounting **Credits: 3**
- BMG\* H202 - Principles of Management **Credits: 3**

- BMG\* H105 - Supervision and Organizational Behavior **Credits: 3**

**TOTAL CREDIT HOURS: 16**

## Technical Communication (HJ61)

The certificate in Technical Communication prepares and empowers the student to be an effective communicator with the ability to write and speak about technical subjects to co-workers, management and customers. At almost every level of employment, business and industry are seeking employees who can communicate technical information to others. Most jobs call for writing skills to prepare correspondence, instructions, charts, graphs and proposals in order to explain, illustrate and convince. Workers also need to speak well enough to explain procedures, communicate with customers and to teach others.

This certificate is focused on working adults who have a desire to improve their technical communication skills. A unique feature is the six-course duration allowing the student to complete the program in a few semesters. Courses carry college credit and are offered in the evening for the convenience of working students. The following courses comprise the certificate in Technical Communication:

### PROGRAM OUTCOMES

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

1. Demonstrate increased competencies in writing and speaking skills.
2. Effectively articulate technical procedures to co-workers, management, and customers.
3. Utilize current computer software, audio, and video tools in preparing technical presentations.

### CURRICULUM

- COM\* H100 - Introduction to Communication **Credits: 3**
- DAT\* H101 - Introduction to Digital Arts **Credits: 3**
- DAT\* H106 - Digital Design **Credits: 3**
- GRA\* H150 - Introduction to Graphic Design **Credits: 3**
- ENG\* H202 - Technical Writing **Credits: 3**
- CSA\* H105 - Introduction to Software Applications **Credits: 3**

### TOTAL CREDIT HOURS: 18

To ensure the applicant's appropriate placement within the program, reading and writing competencies will be assessed. Applicants in need of improvement will be advised to enroll in the College's academic skills and/or basic writing courses.

## Visual Art (HJ78)

The Arts certificate program in Visual Art is a generalized program of primarily two-dimensional studio art and art appreciation courses for the student who wishes to begin college-level credited art courses or to continue such study. Not all courses are offered in all semesters.

### PROGRAM OUTCOMES

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

1. Demonstrate mastery of skills and techniques necessary for studio art.
2. Assemble a comprehensive portfolio of artwork.

### CURRICULUM

- ART\* H111 - Drawing I **Credits: 3**
- ART\* H151 - Painting I **Credits: 3**

Choose one:

- ART\* H101 - Art History I **Credits: 3**  
or
- ART\* H102 - Art History II **Credits: 3**
  
- ART\* H112 - Drawing II **Credits: 3**
- ART\* H152 - Painting II **Credits: 3**
- ART\* H121 - Two-Dimensional Design **Credits: 3**
- ART\* H131 - Sculpture I **Credits: 3**
- Electives - Art **Credits: 6**

**TOTAL CREDIT HOURS: 27**

## COURSE DESCRIPTIONS

The following are descriptions of courses offered by Naugatuck Valley Community College. It is the responsibility of the students to check their programs of study, and to carefully check the schedule of course offerings prior to each semester, in order to ascertain which courses will be offered for a particular semester.

In the following course descriptions, the number of credit hours for each course is indicated. Also included are numbers of lab and lecture hours. Students are urged to consult their counselor for information about transferability of courses to four-year institutions.

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## Accounting

### ACC\* H113 - Principles of Financial Accounting

**Credits:** 3

The course offers an introduction to financial accounting with an emphasis on the use and interpretation of financial accounting information. It introduces the student to the balance sheet, income statement, statement of retained earnings, the cash flow statement and the operation of an accounting information system. The course focuses on the fundamental theory and principles of accounting and utilizes accounting procedures to clarify and demonstrate the underlying concepts.

**Prerequisite(s):** ACC\*H113 is a rigorous college level course. Students should have completed all developmental course work. **Note:** The computer is used in this course.

### ACC\* H117 - Principles of Managerial Accounting

**Credits:** 3

The major objectives of this course are to introduce management tools and models that use accounting information. The use of accounting information for planning, controlling, and decision-making is explored in topics including cost behavior, budgeting and cost accounting. The analysis and interpretation of information are stressed in this rigorous one semester management accounting course.

**Prerequisite(s):** ACC\* H113.

**Note:** The computer is used in this course.

### ACC\* H123 - Accounting Software Applications

**Credits:** 3

Recognizing the importance of computer skills in accounting, this course is designed to acquaint the student with techniques and procedures in using microcomputers as a problem-solving tool in accounting and related disciplines. A PC accounting package and a computerized spreadsheet package will be used in the course. The course will be appropriately rigorous, and the spreadsheet usage will be centered around problems typical of a second semester accounting course.

**Prerequisite(s):** C or better in ACC\* H113, CSA\* H105, and MAT\* H137. **Corequisite(s):** ACC\* H117.

### ACC\* H241 - Federal Taxes I

**Credits:** 3

The Federal Income Tax course is a one-semester study of the Internal Revenue Code as it pertains to individuals. Its purpose is to introduce the student to the federal income tax laws and the application of those laws to the preparation of tax returns.

### ACC\* H271 - Intermediate Accounting I

**Credits:** 3

This course is designed to develop a high level of technical competence. Beginning with basic accounting issues, the course develops students' skills to the point at which they can handle complex professional level problems requiring not only a knowledge of procedures, but also a keen awareness of the concepts behind them. Consideration is given to analysis and interpretation of financial data.

**Prerequisite(s):** C or better in ACC\* H117.

### ACC\* H272 - Intermediate Accounting II

**Credits:** 3

ACC\*H272 is a continuation of the studies begun in ACC\*H271. Particular emphasis is on the topics involving financial statement reporting and disclosure. Subjects covered in depth include current and long-term liabilities, long term investments, the accounting for corporate capital, retained earnings and dividends, the preparation of the Cash Flow Statement, and Income Tax Accounting.

**Prerequisite(s):** C or better in ACC\* H117.

## Anthropology

**ANT\* H101 - Introduction to Anthropology****Credits:** 3

This course is an introduction to the four fields of anthropology: physical (or biological), cultural, archaeological, and linguistic. Topics include a study of evolution, the origins of humankind, human variation, the development of culture, economic and political organization, archaeology, language and communication, marriage and family patterns, kinship and descent, religion, the arts, personality and culture, and cultural change.

**Prerequisite(s):** Eligibility for ENG\* H101.

**ANT\* H121 - Introduction to Archaeology****Credits:** 3

Archaeology is the study of past cultures and societies through examination of their material remains. The class will explore different varieties of archaeology and examine theory, methods, and techniques for investigating, reconstructing, interpreting, preserving, and ultimately, learning from the past. Students will then briefly review human cultural chronology from the time of the first people, the earliest Paleolithic ages, to the present, and deal with not only the artifact remains but also important social, economic, and even ideological questions, such as those on the origins of food production, social inequality, and civilization. Two major emphases throughout the course are archaeology as anthropology and the relevance of archaeology to modern human society and politics. The class will also examine discoveries that make the news during the semester.

**ANT\* H205 - Cultural Anthropology****Credits:** 3

This course is an examination of the concept of culture as the central mode through which humans become people. Students will examine the concept of culture vs. instinct, human cultural adaptation and variation, along with cultural universals, language and communication, marriage and family patterns, kinship and descent, religion, the arts, economic and political organization, personality and culture, and cultural change.

**Art**

The Division of Liberal Arts and Behavioral/Social Sciences encourages students to register for Art courses in order to develop appreciation of, and skills in, the Arts. Some of the courses are required in career programs; others are designed for students' interests and personal development. Consultation with counselors will help determine specific needs. For information, contact the Division of Liberal Arts and Behavioral/Social Sciences at 575-8004.

**ART\* H101 - Art History I**

3

This course is a survey of Western art and architecture from prehistory to the gothic period through an historical, cultural, and technological perspective. The class will include lectures, video and slide presentations for the art major or general student.

**ART\* H102 - Art History II****Credits:** 3

This course is a survey of Western art and architecture from the early Renaissance to the present day through an historical, cultural, and technological perspective. The class will include lectures, video and slide presentations for the art major or general student.

**ART\* H111 - Drawing I****Credits:** 3

Fundamentals of drawing and the use of line as an expressive medium are examined to show structure of form and space in still life, landscape, and the human figure. Work in a variety of media including pencil, pen and ink, wash, charcoal, and pastel is included.

**ART\* H112 - Drawing II****Credits:** 3

This is a continuation of ART\* H111. Planned experiments using various media and the development of a personal style in drawing are offered.

**Prerequisite(s):** ART\* H111 or permission of the Division Dean.

### **ART\* H121 - Two-Dimensional Design**

**Credits:** 3

This is an introduction to color and design in two-dimensional work in various media.

### **ART\* H122 - Three-Dimensional Design**

**Credits:** 3

This course is an introduction to three-dimensional studio techniques, use of materials, tools and media.

### **ART\* H131 - Sculpture I**

**Credits:** 3

This course is an introduction to sculptural form and composition through direct techniques in a variety of materials including wood, plaster, clay and plastics.

### **ART\* H132 - Sculpture II**

**Credits:** 3

This is a continuation and development of techniques introduced in ART\* H131 as well as involvement in more advanced processes such as kinetic, metals and large-scale work. Independent work will be encouraged.

**Prerequisite(s):** ART\* H131 or permission of the Division Dean.

### **ART\* H151 - Painting I**

**Credits:** 3

This is a beginning course in painting in which the student is introduced to the methods and materials of painting and is encouraged to develop some proficiency in the technique of oils, acrylics, or watercolor through exploration and experimentation.

**Prerequisite(s):** ART\* H111.

### **ART\* H152 - Painting II**

**Credits:** 3

This is a continuation of ART\* H151. Emphasis is on the development of skills and individual expression in the use of oils or acrylics.

**Prerequisite(s):** ART\* H151 or permission of Division Dean.

### **ART\* H161 - Ceramics I**

**Credits:** 3

This is an introduction to the creative possibilities of ceramic clay in pottery and sculpture through basic hand modeling techniques such as coil, slab, drape, and potter's wheel. Firing and kiln procedures will also be covered.

### **ART\* H162 - Ceramics II**

**Credits:** 3

This course is a continuation of ART\* H161. Concentration is on wheel thrown and hand-built forms, kiln operation and glaze formation.

**Prerequisite(s):** ART\* H161 or permission of Division Dean

### **ART\* H167 - Printmaking I**

**Credits:** 3

Introduction to basic techniques in such graphic processes as silk screen, block printing, offset and dry-point etching.

## **Astronomy**

## **AST\* H101 - Principles of Astronomy**

**Credits:** 3

This course explores man's rapidly growing knowledge of the Cosmos. Topics include: the sun as a star; the birth and death of stars; the nature of black holes, pulsars, and quasars; the origins of our solar system and the Universe; the identification of stars and constellations in the night sky; and the nature of time as man's invention. Observatory sessions and projects planned as weather permits.

**Prerequisite(s):** MAT\* H095 or placement test score.

**Note:** Students may not receive credit for both AST\*H101 and AST\*H111.

## **AST\* H111 - Introduction to Astronomy**

4

This course is designed to give an overview of the major topics in astronomy and requires basic algebra. The topics covered include: the night sky, the origins of astronomy, a brief description of physics in astronomy, our solar system, stars, galaxies and cosmology. The lab portion will support the understanding of concepts and computation in astronomy. Sessions in the NVCC Observatory will be an integral part of the course.

**Prerequisite(s):** MAT\* H095 or placement test score.

**Lecture Hours:** 3

**Lab Hours:** 2

**Note:** Students may not receive credit for both AST\*H101 and AST\*H111.

## **Automotive Technician**

### **ATP\* H100 - Integrated Automotive Systems**

**Credits:** 3

This is an introductory course for the Automotive Technician providing the theory for a foundation in the field. Emphasis will be on basic automotive service procedures and the inter-relationship of the various automotive systems. Shop safety, proper care and use of tools are included.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H110 - Automotive Electrical Systems**

**Credits:** 3

The study of electrical theory and nomenclature along with applications of electrical/electronic systems. To include, but is not limited to: starting, charging, lighting, wiring, accessories, diagnosis and repairs.

**Corequisite(s):** ATP\* H100 and MAT\* H095 or satisfactory completion of College placement test or with permission of the Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H120 - Engine Repair**

**Credits:** 3

Diagnosis of automotive engines and their lubrication and cooling systems. Included is engine construction, operation along with disassembly and assembly techniques.

**Corequisite(s):** ATP\* H100 or with permission of the Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H130 - Brakes**

**Credits:** 3

Covers the maintenance, diagnosis and repair procedures of disc and/or drum brake systems including ABS (antilock brakes) along with their mechanical, hydraulic and electrical components.

**Corequisite(s):** ATP\* H100 or with permission of the Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H140 - Automotive Heating and Air Conditioning**

**Credits:** 3

Theory-related instruction of the automotive heating and air conditioning systems. Emphasis is placed on basic refrigerant cycles, heat transfer, trouble shooting, and diagnosis of both refrigerant and electronic control systems.

**Corequisite(s):** ATP\* H100 or with permission of the Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H150 - Suspension and Steering**

**Credits:** 3

The diagnosis and repair of steering and suspension systems and their inter-relationship to wheel alignment. The course includes a thorough knowledge of wheel and tire maintenance.

**Corequisite(s):** ATP\* H100 or with permission of the Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H185 - Automotive Service and Parts Department Management**

**Credits:** 2

Topics in this course include marketing techniques, financial analysis, personnel management, work scheduling and distribution, and use of pricing manuals. An in-depth study of parts numbering, storage, cataloging, retrieval, ordering, and stocking management techniques will be discussed.

**Prerequisite(s):** ATP\* H100 or with the permission of Coordinator. **Lecture Hours:**

2

### **ATP\* H190 - Metallurgy/Welding**

**Credits:** 2

In the automotive field, the use of the oxyacetylene torch and the mig welder is common place. Automotive technicians need to be able to use the processes of welding and brazing, etc. safely and skillfully. This course offers both theory and a practical lab section so students will be both skilled and knowledgeable in all the welding technology covered.

**Lecture Hours:** 1

**Lab Hours:** 2

### **ATP\* H210 - Engine Performance**

3

Fuel theory and nomenclature necessary to service and repair computerized automotive fuel systems. This includes but is not limited to computer controls, ignition, fuel, exhaust and emission systems and their maintenance, diagnosis, adjustments and repair.

**Prerequisite(s):** ATP\* H110 or with permission of the Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H220 - Automotive Emissions**

**Credits:** 3

This is a continuation of ATP\* H210, emphasizing practical application on the cause and effect of HC, CO, and NOx emissions. This includes various systems diagnosis, containing but not limited to, general powertrain, computerized powertrain controls, fuel and air induction, emissions control, and I/M failure.

**Prerequisite(s):** ATP\* H210 or with permission of the Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H261 - Manual Drive Train and Axles**

**Credits:** 2

The diagnosis and repair of manual drive transmissions and transaxles. This includes clutches, drive (half) shaft, and universal joints along with rear axle and four-wheel drive components.

**Corequisite(s):** ATP\* H100 or with permission of the Coordinator.

**Lecture Hours:** 1

**Lab Hours:** 2

### **ATP\* H262 - Automatic Transmission and Transaxle I**

**Credits:** 2

The operation, diagnosis and maintenance of automatic transmission and transaxles to include in-vehicle and off-vehicle adjustments and repair.

**Corequisite(s):** ATP\* H100 or with permission of the Coordinator.

**Lecture Hours:** 1

**Lab Hours:** 2

### **ATP\* H270 - Introduction to Diesel Mechanics**

**Credits:** 3

The course introduces the diesel engine, its capabilities, operations, and its unique engine fuel delivery systems.

**Corequisite(s):** ATP\* H100 or with permission of Coordinator.

**Lecture Hours:** 2

**Lab Hours:** 2.5

### **ATP\* H280 - Alternative Fuel Vehicle Fundamentals**

**Credits:** 2

This course is designed to prepare automotive technicians, dealers, and repairers to take the ASE Alternative Fuel Vehicle Certification examinations. It covers fundamental procedures, operations, safety, regulations and inspection of Alternative Fuel Vehicles.

**Lecture Hours:** 1

**Lab Hours:** 2

### **ATP\* H290 - Cooperative Work Experience I**

**Credits:** 3

This required course is designed to bridge the gap between academic theory and practical work experience.

**Prerequisite(s):** ATP\* H100, ATP\* H110, ATP\* H120, ATP\* H130, ATP\* H150, ENG\* H101, minimum 30 credits of course work completed and a 2.5 GPA, or with permission of Coordinator.

**Cooperative Work Experience:** This course consists of a minimum 250-hour Cooperative Work Experience

### **ATP\* H291 - Cooperative Work Experience II**

**Credits:** 3

This required course is designed to bridge the gap between academic theory and practical work experience.

**Prerequisite(s):** ATP\* H290 and a minimum of 40 credits of course work completed and a 2.5 GPA, or with permission of Coordinator.

**Cooperative Work Experience:** This course consists of a minimum 250-hour Cooperative Work Experience.

## **Aviation Science**

### **AVS\* H101 - Private Pilot Lecture**

**Credits:** 3

This ground school course includes coverage of basic flight concepts, principles of meteorology, aeronautical charts and publications, pre-flight planning, flight computer and plotter, basic radio navigation, Federal Aviation Regulations, basic aerodynamics, aircraft avionics, and emergency procedures.

**Corequisite(s):** AVS\* H201.

**Note:** This course prepares students for the FAA Private Pilot Knowledge Test.

### **AVS\* H103 - Instrument Lecture**

**Credits:** 3

This ground school course includes coverage of human factors and aviation physiology, the construction, use and interpretation of aircraft instruments used in instrument flight, Federal Aviation Regulations, instrument navigation, the ATC system, aeronautical charts and publications related to instrument flight, instrument approaches, weather analysis for instrument operations, and instrument emergency procedures.

**Prerequisite(s):** AVS\* H101, AVS\* H201.

**Note:** This course prepares students for the FAA Instrument Rating Knowledge Test.

### **AVS\* H104 - Commercial Pilot Lecture**

**Credits:** 3

This ground school course includes coverage of advanced human factors and aeronautical decision making for commercial operations, advanced navigation, advanced aircraft systems, advanced aerodynamics and commercial maneuvers, and emergency procedures for commercial operations.

**Prerequisite(s):** AVS\* H103, AVS\* H203.

**Note:** This course prepares students for the FAA Commercial Pilot Knowledge Test.

### **AVS\* H120 - Foundations of Aviation**

**Credits:** 3

This course explores the events that have shaped the development of aviation from the earliest attempts at flight up to the present day. The historical foundation of aviation is used to develop an understanding of the economic, social, and political impact of aviation on society.

### **AVS\* H130 - Air Transportation System**

**Credits:** 3

This course provides a historical background and an overview of the major segments of the air transportation industry. Current state and federal agencies and the regulations influencing air transportation, as well as the basis for their establishment, are also discussed. Requirements of the past, present and future with respect to aircraft and engine design, airports and supporting facilities are reviewed and

evaluated. Students are introduced to the economics of airline operations and maintenance, and the general factors that influence an airline's survival and profitability.

### **AVS\* H140 - Aerospace Safety**

**Credits:** 3

This course is designed to provide the student with an understanding of the role of government agencies in ensuring aerospace safety. The ways in which airlines and airports ensure public safety and security will also be discussed. Emphasis will be on critical analysis of case studies involving investigations and prevention of aircraft accidents.

### **AVS\* H150 - Airport Management I**

**Credits:** 3

This course provides an overview of the operational requirements needed for airports and airport terminals with an emphasis on the facilities that comprise an airport system, including airspace, airfield, terminal, and ground access operations. The financial aspects of airport planning as well as airport capacity considerations are also discussed.

### **AVS\* H151 - Airport Management II**

**Credits:** 3

This course is a continuation of AVS\* H150. Emphasis is on managing daily airport operations, airport organization and administration, and financial management of the airport facility. Airport improvements and the relationship of airports with tenants and the general public are also discussed.

**Prerequisite(s):** AVS\* H150.

### **AVS\* H201 - Private Pilot Flight Training Lab**

3

Students will receive approximately 50 hours of flight instruction covering topics that include pre-flight operations, aircraft systems, ground operations, basic flight maneuvers, ground reference maneuvers, normal and emergency procedures, crosscountry operations, and flight by reference to instruments. Co-op instruction is designed to augment students' flight training and includes the use of a flight simulator as well as classroom discussion of selected topics.

**Corequisite(s):** AVS\* H101.

**Note:** This course prepares students for the FAA Private Pilot Knowledge Test (ASEL). ALL FLIGHT TRAINING COSTS ARE THE RESPONSIBILITY OF THE STUDENT.

### **AVS\* H203 - Instrument Flight Training Lab**

**Credits:** 3

Students will receive approximately 50 hours of flight instruction covering topics that include pre-flight operations, full and partial panel procedures, systems and equipment malfunction, instrument navigation techniques, holding and approach procedures, and emergency procedures for instrument flight. Co-op instruction is designed to augment students' flight training and includes the use of a flight simulator as well as classroom discussion of selected topics.

**Corequisite(s):** AVS\* H103.

**Note:** This course prepares students for the FAA Instrument Rating Practical Test (ASEL).

ALL FLIGHT TRAINING COSTS ARE THE RESPONSIBILITY OF THE STUDENT.

### **AVS\* H204 - Commercial Flight Training Lab**

**Credits:** 3

Students will receive approximately 120 hours of flight instruction covering topics that include pre-flight operations, aircraft systems, advanced ground operations, advanced flight maneuvers, normal and emergency procedures, commercial cross-country operations, and complex aircraft operations. Co-op instruction is designed to augment students' flight training and includes the use of a flight simulator as well as classroom discussion of selected topics.

**Corequisite(s):** AVS\* H104

**Note:** This course prepares students for the FAA Commercial Pilot Practical Test (ASEL).  
ALL FLIGHT TRAINING COSTS ARE THE RESPONSIBILITY OF THE STUDENT.

## **AVS\* H255 - Human Factors in Aviation**

**Credits:** 3

This course explores physiological and cognitive factors such as hypoxia, disorientation, stress, fatigue, anxiety and the effects of alcohol and other drugs on critical judgment and decision-making processes of operational personnel in aviation. Investigation of our unique human capabilities and limitations is used to develop strategies to improve the performance of flight crews, air traffic controllers, flight management and other operational personnel as they identify and respond to critical, time-sensitive situations in aviation operations.

## **Biological Sciences**

### **BIO\* H105 - Introduction to Biology**

4

This course introduces the foundational concepts of the biological sciences to inform students how life functions at the molecular level through how organisms interact with the environment. Designed as a general education course for non-science, non-allied health majors, lecture and laboratory topics covered include the scientific method, basic chemistry, cell biology, cellular energy conversion and carbon cycling, cellular reproduction, heredity and genetics, molecular biology, evolution, and ecology. Laboratory includes an animal dissection.

**Prerequisite(s):** C or better in MAT\* H094/MAT\* H095 or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

### **BIO\* H110 - Principles of the Human Body**

**Credits:** 3

This course is an introduction and survey of human anatomy and function including the digestive, circulatory, respiratory, immunological, urinary, nervous, sensory, muscular, skeletal, endocrine, and reproductive systems of the body. The course will include discussions of the evolution of the human body and its dynamic interaction with the environment. Not open for credit to students who have passed any higher-numbered human biology or anatomy and physiology course.

**Prerequisite(s):** Completion of MAT\* H094/MAT\* H095 with a C or better or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Note:** Open to students needing a three-credit science course in their program of study including Liberal Arts and Sciences and General Studies. Students may not receive credit for both BIO\*H110 and BIO\*H115.

### **BIO\* H111 - Introduction to Nutrition**

**Credits:** 3

A basic introduction to the science of nutrition with an emphasis on making healthy food and lifestyle choices. Health and disease, metabolism, cultural diversity and food processing are studied in relationship to individual nutrients as well as to total dietary patterns. Information presented enables analysis and modification of diets to promote health, reduce the risk of deficiencies and chronic diseases related to nutrition and evaluate dietary advertising, controversies and nutritional policies.

**Prerequisite(s):** Completion of MAT\* H094/MAT\* H095 with a C or better or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

### **BIO\* H115 - Human Biology & Lab**

**Credits:** 4

This introductory course will focus on the overarching themes of health, homeostasis, evolution and the environment as they relate to human body systems. Laboratory experiments include microscopic examination of cells and tissues, anatomy, physiology of nerves and muscles, blood typing, and principles of inheritance.

**Prerequisite(s):** C or better in MAT\* H094/MAT\* H095 or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

**Note:** Students may not receive credit for both BIO\* H110 and BIO\*H115.

## **BIO\* H121 - General Biology I - Cellular Biology**

4

The general principles of biology are taught integrating lectures, laboratory experiments, computer simulations, discussions, and other activities to help students gain an understanding of the essential biological concepts. The foci of this course are scientific method, cell biology, viruses, prokaryotic organisms, protists, basic cell chemistry, photosynthesis, cellular respiration, mitosis & meiosis, genetics, and biotechnology (plant tissue culture, genetic transformation). Cooperative learning, critical thinking, library research, as well as presentation skills are utilized culminating in a team project that includes a written paper and a short presentation. This course is one part of a two semester sequence in general biology primarily for students seeking transfer into a four-year degree program. BIO\*H121 (Cellular Biology) and BIO\* H122 (Organismal Biology) can be taken in any order and are transferable.

**Prerequisite(s):** C or in better MAT\* H094/MAT\* H095 or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

**Note:** This course satisfies the general education core science requirement.

## **BIO\* H122 - General Biology II - Organismal Biology**

**Credits:** 4

Utilizing the same integrative approach as BIO\* H121, students will investigate biotechnology (gel electrophoresis for DNA and protein analysis), systematics, biological statistics, population genetics, evolution, plant biology (life-cycles and growth of fungi, non-vascular, and vascular plants), animal biology (early development and histology, comparison of invertebrate and vertebrate life cycles and physiological systems), and ecology. Science process skills are emphasized. Collaboratively, students will investigate a scientific research topic culminating in a written report and oral presentation to their peers. This course is one part of a two semester sequence in general biology primarily for students seeking transfer into a four-year degree program. This is the second semester of general biology; however, BIO\* H121 (Cellular Biology) and H122 (Organismal Biology) can be taken in any order.

**Prerequisite(s):** Completion of MAT\* H094/MAT\* H095 with a C or better or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3 **Lab**

**Hours:** 3

**Note:** This course satisfies the general education core science requirement for both non-majors & majors.

## **BIO\* H145 - General Zoology**

**Credits:** 4

This lecture-laboratory is a survey of the animal kingdom. Topics discussed include morphology, anatomy and physiology, life cycles, reproduction, evolution, and ecological relationships of various animal forms.

**Prerequisite(s):** Completion of MAT\* H094/MAT\* H095 with a C or better or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

## **BIO\* H155 - General Botany**

**Credits:** 4

The focus of this course is how plants function. It is an introduction to plant physiology and development, explaining growth processes, metabolism and hormonal responses. Additional topics, such as soils, plant breeding, and propagation will be addressed. The laboratory component is designed to involve students with important concepts discussed in lecture.

**Prerequisite(s):** C or better in MAT\* H094/MAT\* H095 or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

### **BIO\* H171 - Field Biology**

**Credits:** 4

Lecture-laboratory. This is an introduction to ecology with special emphasis on identification of Connecticut plants and animals in the outdoors. A wide range of topics will be presented including map reading, edible wild foods, and collecting.

**Prerequisite(s):** Completion of MAT\* H094/MAT\* H095 with a C or better or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

### **BIO\* H175 - Marine Science**

**Credits:** 3

This course is an introduction to the major groups of plant and animals in various marine environments, as well as their interactions with each other and the nonliving components of the ocean. The impact of human activity in the ocean, and the potential uses and misuses of the ocean will be discussed.

**Prerequisite(s):** C or better in MAT\* H094/MAT\* H095 or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

### **BIO\* H180 - Principles of Environmental Science**

**Credits:** 3

This is a survey course of environmental studies. Topics discussed include basic ecology; human populations; water, soil, forests and pollution; renewable and non-renewable energy; legislation; citizens action. Dynamic Environmental systems are explored via computer simulations.

**Prerequisite(s):** C or better in MAT\* H094/MAT\* H095 or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Note:** Students may not receive credit for both BIO\*H180 and BIO\*H181.

### **BIO\* H181 - Environmental Science & Lab**

**Credits:** 4

This course has the same lecture as BIO\* H180; however, there is an additional laboratory component. Laboratory experiences include water and soil analyses, pond and river studies, computer simulations, field trips to environmental quality facilities and laboratories.

**Prerequisite(s):** C or better in MAT\* H094/MAT\* H095 or an appropriate score on a college placement exam, and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

**Note:** Students may not receive credit for both BIO\* H180 and BIO\*H181.

### **BIO\* H211 - Anatomy and Physiology I**

**Credits:** 4

Lecture-laboratory. This is the first semester of a two semester comprehensive course designed for those students who plan to continue in the science field or science-related areas. Major topic areas include molecular biology, cells, tissues and the integumentary, skeletal, muscular and nervous systems of the human body. Laboratory includes an animal dissection.

**Prerequisite(s):** Completion of BIO\*H115 or BIO\*H121 with a grade of "C" or better, or by permission of the Division Leader

**Lecture Hours:** 3

**Lab Hours:** 3

**BIO\* H212 - Anatomy and Physiology II****Credits:** 4

Lecture-laboratory. Major topic areas include the cardiovascular, lymphatic/immune, respiratory, digestive, endocrine, urinary and reproductive systems of the human body. Laboratory includes an animal dissection.

**Prerequisite(s):** C or better in BIO\* H211 or permission of the Division Dean.**Lecture Hours:** 3**Lab Hours:** 3**BIO\* H235 - Microbiology****Credits:** 4

This 4-credit course introduces the student to bacteria and other microorganisms. Particular emphasis is placed on the taxonomy, structure, metabolism and growth of bacteria, and various microbial diseases. Similar characteristics of fungi, viruses and protozoa are covered. Current news topics are incorporated into lecture discussions. Immunology, genetics, and biotechnology are also discussed. The emphasis in the laboratory is on the identification, safe handling and cultivation of microbes. Qualitative and quantitative activities include basic microscopy, bacterial staining techniques, growth experiments with comparative analysis of results, identification of unknowns, and computer-based research.

**Prerequisite(s):** BIO\* H115 or BIO\* H121 with a C or better**BIO\* H260 - Principles of Genetics****Credits:** 3

This is an introduction to the principles of genetics. It covers Mendelian analysis, chromosome theory, extensions of Mendelian analysis, molecular genetics, as well as quantitative and population genetics.

**Prerequisite(s):** BIO\* H105 or equivalent.**BIO\* H262 - Genetics & Lab****Credits:** 4

This course is designed to cover the basic concepts of genetics including the theory of chromosomal inheritance, classical Mendelian inheritance, principles of human genetics, the genetic code, the role of nucleic acids in gene expression, genetic mutations, population genetics and topics in modern genetics in areas such as epigenetics, recombinant DNA, biotechnology, gene mapping and diagnosis of human genetic diseases. Students will develop and master good laboratory practices and safe handling skills while completing laboratory investigations including genetic crosses, molecular diagnostic techniques, and calculating genetic variation in populations.

**Prerequisite(s):** BIO\* H105 or BIO\* H115 or BIO\* H155 or BIO\* H121 or BIO\*H225 or permission of Division Dean.**Lecture Hours:** 3**Lab Hours:** 3**BIO\* H277 - Ecology of New England****Credits:** 3

This course is based on the science of ecology. It will investigate the physical and biological aspects of inland aquatic and terrestrial ecosystems found in Southern New England. Biome distribution, biogeochemical cycles, productivity, energy flow, life history adaptations, population dynamics, and community interactions will be quantitatively examined within a cross-cutting framework of evolution. Student observation journals for a local ecosystem and a team video research presentation are required. The optional laboratory course (BIO\*H278) will utilize the campus forest, pond, and nearby wetlands. This course is open to biology majors and non-majors. Ecology fulfills the Educational Common Core Scientific Knowledge requirement.

**Prerequisite(s):** 1 semester Biology laboratory course (BIO\*H105, BIO\*H115, BIO\*H127, BIO\*H121, BIO\*H122, BIO\*H145, BIO\*H155) & MAT\*H136/137 with C or better & ENG\*H101**Lecture Hours:** 3**BIO\* H278 - Ecology of New England Lab****Credits:** 1

This is the optional laboratory course for BIO\*H277. This course is based on the science of ecology. It will investigate the physical and biological aspects of inland aquatic and terrestrial ecosystems found in Southern New England. Biome distribution, biogeochemical cycles, productivity, energy flow, life history adaptations, population dynamics, and community interactions will be quantitatively examined within a cross-cutting framework of evolution. Student observation journals for a local ecosystem and a team video research presentation are required. The laboratory sessions will utilize the campus forest, pond, and nearby wetlands. This course is open to biology majors and non-majors. Ecology fulfills the Educational Common Core Scientific Knowledge requirement.

**Prerequisite(s):** 1 semester Biology laboratory course (BIO\*H105, BIO\*H115, BIO\*H127, BIO\*H121, BIO\*H122, BIO\*H145, BIO\*H155) & MAT\*H136/137 with C or better & ENG\*H101 **Lab Hours:** 3

## Business

### **BBG\* H101 - Introduction to Business**

**Credits:** 3

A survey of the fundamental principles of business will be discussed including marketing, management, finance, accounting, and human resource development. This course is required for most students majoring in business.

### **BBG\* H210 - Business Communication**

**Credits:** 3

This course is an analytical approach to the development of content in business writing with emphasis on the relationship of creative and logical thinking to the solution of business problems through concise, coherent written and oral communications.

**Prerequisite(s):** ENG\* H101.

### **BBG\* H215 - Global Business**

**Credits:** 3

This course provides an introduction to the nature and Environment of international business. Topics will include the nature of international business, international organizations and monetary systems, foreign Environments and management tools necessary for international business opportunities and operations. Social, political and economic factors which impact on international business interactions are also studied.

### **BBG\* H231 - Business Law I**

**Credits:** 3

The legal rights, duties, and responsibilities of the business person are examined. Topics include a general introduction to the meaning and nature of the law, and the structure of the American legal system. Emphasis is placed upon the basic principles of the law of contracts, torts, criminal law and procedure, agency, real property, wills, and decedent's estates.

### **BBG\* H232 - Business Law II**

**Credits:** 3

This course further develops and examines the American legal system, as well as the international legal system. Topic include the uniform Commercial Code, ethics, consumer protection laws, secured transactions, intellectual property law, corporate law, partnership law, limited liability companies and numerous aspects of international law.

**Note:** It is recommended that Business Law I be taken before Business Law II.

### **BES\* H118 - Small Business Management**

**Credits:** 3

This course is designed to assist students with the knowledge and skills needed to operate and/or develop a small business. Emphasis will be placed on the entrepreneurial aspects of creating, managing, and gaining profit from a small business.

### **BMG\* H105 - Supervision and Organizational Behavior**

**Credits:** 3

Emphasis on the latest developments in the fields of management. Group discussions of case studies and problem are included. Also, emphasis on group work and the use of the computer as an aid in the decision-making process in a micro-organizational settings is included.

**Prerequisite(s):** BMG\* H202.

**Note:** Additional software may be required.

### **BMG\* H202 - Principles of Management**

**Credits:** 3

This course deals with management theory, science, and practice. Consideration is given to management thought and analysis. The external Environment, both domestic and international, is reviewed as well as the major functions of planning, organizing, directing, and controlling business. The coordinating function of the business manager is considered. Decision-making processes and techniques are also stressed.

### **BMG\* H220 - Human Resources Management**

**Credits:** 3

This course deals with personnel management in the process of manpower administration in the business organization. Treatment is given to procurement and human resource utilization and the role of labor unions in the industrial organization. The development of the role of the person and personality amidst the various social sciences and organization structures required to achieve an organization's goals are studied - as in motivation.

**Prerequisite(s):** BBG\* H101.

### **BMK\* H201 - Principles of Marketing**

**Credits:** 3

This course deals with the marketing function of the firm primarily from the management standpoint. Topics include marketing strategy, new products, channels of distribution, pricing, and promotion. The function of the marketing institution in economic and social context is considered.

### **BMK\* H216 - Internet Marketing**

**Credits:** 3

Develop a working knowledge of the World Wide Web as a marketing vehicle providing fast/efficient electronic commerce and the ability to manage the Internet marketing process for a small to medium-sized business enterprise. Internet is fast becoming the ultimate distribution system to disseminate marketing data, identify/segment customers to provide sales force attention, customer service activity, and ordering. Electronic Commerce Marketing Principles will prepare a student to intelligently apply the Marketing Mix disciplines and concepts to a company's products/services in order to effectively prepare and execute "Marketing Plans" participating in the growing "electronic commerce" segment of business.

### **BMK\* H220 - Sales**

**Credits:** 3

Basic principles underlying the sales process and their practical application to sales situations are studied. Economics and psychological and sociological relationships in the marketplace, as they apply to sales of industrial and consumer goods and intangibles, are examined.

## **Business Finance**

### **BFN\* H201 - Principles of Finance**

**Credits:** 3

This introductory course will provide an understanding of the role of finance in the economy, business management, government and consumer financing. Included are the fiscal, monetary and debt management policies of government.

### **BFN\* H203 - Investment Principles**

**Credits:** 3

This course gives a broad perspective on investment objectives and values, as well as a study of securities, market and values. A study of securities, market procedures, analytical techniques, speculative and institutional markets is also included.

### **BFN\* H220 - Financial Management**

**Credits:** 3

This course is an in-depth study of finance including the mathematics of finance, corporate securities; also included are short, intermediate and long term sources of funds; and liabilities, income administration, mergers and acquisitions, and working capital.

**Prerequisite(s):** BFN\* H201 or permission of Division Dean.

### **BRE\* H201 - Real Estate Principles**

**Credits:** 3

The topics studied in this course include fundamentals of mortgage, deeds, loan applications, real estate credit, mortgage markets, and current legislation affecting real estate finance.

**Prerequisite(s):** BFN\* H201 or permission of Division Dean.

### **BRE\* H205 - Real Estate Law**

**Credits:** 3

This course examines the legal Environment of real estate including contracts, deeds, instruments, easements, estates in land, zoning, tenants, liens, foreclosure, transfers of titles, leases, and relevant court rulings.

**Note:** LGL\*H104 is a substitution for this course.

## **Chemistry**

### **CHE\* H111 - Concepts of Chemistry**

**Credits:** 4

Lecture-laboratory. This is a foundation course designed to present chemical concepts including the metric system, scientific measurements, atomic theory, chemical bonding, periodic variation of the elements, nomenclature, equations, gas laws, stoichiometry, basic types of chemical reactions, and a brief survey of organic chemistry. This course is open to students with little or no background in chemistry.

**Prerequisite(s):** MAT\* H137.

**Lecture Hours:** 3

**Lab Hours:** 3

### **CHE\* H121 - General Chemistry I**

**Credits:** 4

Lecture-laboratory. The fundamental concepts and laws of chemistry are examined. Topics covered include atomic theory, chemical bonding, periodic table and periodic law, nomenclature, states of matter, solutions, stoichiometry, acid-base theory, oxidation, reduction, and coordination chemistry.

**Corequisite(s):** MAT\* H172, its equivalent or permission of instructor.

**Lecture Hours:** 3

**Lab Hours:** 3

### **CHE\* H122 - General Chemistry II**

**Credits:** 4

Lecture-laboratory. This course provides a more specific discussion of major topics within the four major divisions of chemistry. Topics covered include colloids, kinetics, equilibrium, thermodynamics, nuclear chemistry, electro-chemistry, discussion of physical and

chemical properties of selected groups on the periodic table, ionic equilibria of weak electrolytes, buffer solutions and titration curves, solubility product, qualitative analysis, and a brief introduction to organic chemistry.

**Prerequisite(s):** C or better in CHE\* H121.

**Lecture Hours:** 3

**Lab Hours:** 3

## **CHE\* H211 - Organic Chemistry I**

**Credits:** 4

Lecture-laboratory. This is a fundamental course involving systematic study of the reactions of organic compounds, the relationships between molecular structure and reactivity, and an introduction into spectroscopic analysis. The laboratory has been revised to include the ultra modern microscale technique. This approach includes some of the following advantages: elimination of fire or explosion danger, elimination of chemical waste disposal problems, expansion in variety and sophistication of experiments, and creation of a much healthier laboratory environment.

**Prerequisite(s):** CHE\* H121-CHE\* H122 or acceptable one-year college chemistry course at another institution. **Lecture Hours:** 3

**Lab Hours:** 3

## **CHE\* H212 - Organic Chemistry II**

**Credits:** 4

Lecture-laboratory. This course is a continuation of CHE\* H211, dealing with more complex classes of carbon compounds including sugars, amino acids and proteins, heterocyclics, and polymers. The laboratory has been revised to include the ultra modern microscale technique. This approach includes some of the following advantages: elimination of fire or explosion danger, elimination of chemical waste disposal problems, expansion in variety and sophistication of experiments, and creation of a much healthier laboratory environment.

**Prerequisite(s):** CHE\* H211.

**Lecture Hours:** 3 **Lab**

**Hours:** 3

## **Communications**

### **COM\* H100 - Introduction to Communication**

**Credits:** 3

An introduction to the field of communication and to the strands of communication study: intrapersonal, interpersonal, small group, and public communication. Students will develop communication skills as they relate to the self and to interaction in small and large groups in everyday interpersonal situations.

**Prerequisite(s):** Placement into ENG\* H101.

### **COM\* H101 - Introduction to Mass Communications**

**Credits:** 3

This course acquaints students with the complex nature of the media through which they communicate. The course will introduce the various forms of communication media; the role of media as it informs, entertains and persuades; and the effects of media on individuals and society.

### **COM\* H154 - Film Study and Appreciation**

**Credits:** 3

This course is an introduction to the art, history, and influence of film. Students will trace the history of cinema through both technical advancements and aesthetic developments enabling them to understand the aesthetics of films as well as the cultural and historical context in which the films were made.

**Prerequisite(s):** Placement in or eligible for ENG\* H101.

### **COM\* H157 - American Film**

**Credits:** 3

Students survey American film from its beginnings to the present. The course will include the silent era, birth of sound, and typical genres.

### **COM\* H158 - International Cinema**

**Credits:** 3

This course is an introduction to the history of international cinema. Students will develop their sense of visual aesthetics, awareness of important cinematic movements and styles, and knowledge of the history and cultures, and the historical contexts within which the films were produced.

### **COM\* H172 - Interpersonal Communication**

**Credits:** 3

This course examines the role of interpersonal communication in human relationships. The focus of this course is on improving interpersonal skills and helping students increase their communication competence in everyday social exchanges.

### **COM\* H173 - Public Speaking**

**Credits:** 3

This course provides students with an understanding, appreciation, and capacity for public speaking. Excellence in public speaking requires mastery of informative and persuasive techniques of language, organization, citation of evidence, and use of rhetorical patterns of introduction and conclusion. Exposure to theoretical elements and their application in public speaking will be explored in this class.

### **COM\* H178 - Small Group Communication**

**Credits:** 3

The purposes of this course are (a) to provide an overview of theory and research in key areas of study in small group communication, (b) to teach skills in group decision making, and (c) to give students the opportunity to apply theory, research, and decision making skills by interacting in a group environment.

### **COM\* H202 - Intercultural Communication**

**Credits:** 3

This course will be an introduction to the major principles and theories of intercultural communication. It will emphasize the application of skills and concepts for increasing cultural awareness and communication competency in a variety of cultural contexts. Exposure to communication systems and formations from different cultures will be used as a means to provide various ways of thinking about cultures.

**Prerequisite(s):** COM\* H100 or COM\* H172.

### **COM\* H226 - Journalism I**

**Credits:** 3

Students explore methods and techniques of news gathering, news writing, and news analysis. By covering campus and community events, they make practical application of theory.

**Prerequisite(s):** ENG\* H101.

## **Computer-Aided Drafting/Design**

*Note: All software used in these courses are subject to change.*

### **CAD\* H110 - Introduction to CAD**

**Credits:** 3

An introduction to the techniques of generating graphic images with computers, using AutoCAD. Topics include: overview of CAD technology, computer technology, hardware descriptions and requirements, file manipulation and management, twodimensional

geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies.

### **CAD\* H150 - CAD 2D (AutoCAD)**

**Credits:** 3

Introduction to two-dimensional computer-aided drafting using Autocad. Included are drawing and editing of elementary geometric entities, dimensioning and plotting. Also, mechanical drafting problems and examples will be studied.

**Lecture Hours:** 1

**Lab Hours:** 4

### **CAD\* H200 - 3D CAD Modeling**

**Credits:** 4

The primary focus of this course is to review and continue to develop a working knowledge of Engineering Graphics and develop Three-Dimensional Geometric Computer Modeling. This course will also include an introduction to additive manufacturing techniques. Students will further develop the basic 2D engineering drawings such as: Isometric Drawings, Orthographic Projections, Sectional Views and Auxiliary Views. The modeling will consist of, but will not be limited to, an introduction to the parametric process using SolidWorks to develop computer generated 3D models. Students will also receive an introduction to Additive Manufacturing using state-of-the-art 3D printers.

**Prerequisite(s):** CAD\* H150.

**Lecture Hours:** 2

**Lab Hours:** 4

### **CAD\* H220 - Parametric Design**

**Credits:** 3

The primary focus of this course is to study and develop advanced aspects of designing with Solid Modeling and Parametric Modeling. The course proceeds in a pedagogical fashion to guide the student from constructing basic solid models to building intelligent mechanical designs, creating multi-view drawings, Surface Models and Assembly Models.

**Prerequisite(s):** CAD\* H150 and CAD\* H200.

**Lecture Hours:** 1

**Lab Hours:** 4

### **CAD\* H275 - CAD Animation (3D Studio Max)**

**Credits:** 4

This course will guide the student through the world of three-dimensional presentation. The student will create photo realistic still images, animated assemblies, camera fly-bys, robotic motion, and dynamic life-like animated presentations. The concepts covered in this course can be applied to a variety of engineering disciplines.

**Prerequisite(s):** CAD\* H200 or experience in 3D computer modeling.

**Lecture Hours:** 2

**Lab Hours:** 4

### **CAD\* H285 - Computer Integrated Manufacturing (CIM) I**

**Credits:** 3

This course is an introduction to the mechanical design process used to develop intelligent product models that can be used in Computer Integrated Manufacturing (CIM). The students will gain an understanding of the basic principals of 3D solid modeling, parametric relationships, and controlling design intent and object dependencies. Students will develop complete product designs, outputting 3D solid and sheet metal parts, tolerance analysis, family tables and assembly models, related detail and assembly drawings, and prototypes.

**Prerequisite(s):** CAD\* H200, MAT\* H172.

**Lecture Hours:** 2

**Lab Hours:** 2

**CAD\* H286 - Advanced Modeling Techniques****Credits:** 3

This course builds on the concepts developed in CAD\* H285, Introduction to Advanced Modeling. It develops advanced modeling concepts, techniques and methods used in modern product modelers- topics such as user interface customization, user defined features, writing programs within the CAD system, sweeps, advanced rounds, and basic stress analysis. Students will work on their own and in groups to develop complete product designs, outputting 3D solid parts.

**Prerequisite(s):** CAD\* H285.**Lecture Hours:** 2**Lab Hours:** 2**CAD\* H294 - Senior Project****Credits:** 4

The course offers students a CAD engineering design activity utilizing an assigned, or approved, design project. The project will incorporate a wide range of learning activities including, but not limited to, library research, written status reports, discussions, oral presentations, time management and project planning, team work, the application of the design process, and the utilization of a variety of CAD applications.

**Prerequisite(s):** CAD\* H220.**Corequisite(s):** CAD\* H275, or approval of the department chair.**Lecture Hours:** 2 **Lab****Hours:** 4**Computer Information Systems****CSC\* H101 - Introduction to Computers****Credits:** 3

This is an introductory course in information technology concepts and software productivity tools intended for Computer Information Systems majors and other students interested in computers and Information Technology. Areas of instruction include computer concepts, current topics and trends in information technology, the role of computer systems in business problem solving, an introduction to the major career areas of Information Technology and Microsoft Office skills that are important to all college students.

**CSC\* H113 - Programming I****Credits:** 3

Fundamentals of programming and program development techniques. This is a first step programming course which emphasizes problem solving and sound programming practices. No previous programming experience is necessary. Topics include data types, functions, storage class, selection, repetition, pointers, arrays, and file processing. Programming laboratory projects in a laboratory environment are supervised by the instructor.

**CSC\* H183 - Information Systems in Organizations****Credits:** 3

The focus of this course is on how organizations use information systems for decision making. In particular, the course stresses the role of managers in the analysis, design, development, implementation, maintenance and control of information systems as corporate resources. Course includes a hands-on approach to communications using workgroup software.

**CSC\* H205 - VISUAL BASIC I****Credits:** 3

This course uses Visual Basic .NET, an object-oriented/event-driven language, to teach programming concepts. Through "hands-on" application of the concepts presented in the lectures and tutorials, the student will learn the Visual Basic .NET tools used to create applications that correspond to Windows standards. By the end of the course, the student will be able to design and code simple business applications and will be prepared for more advanced courses in programming using VB, C++, etc.

**CSC\* H206 - VISUAL BASIC II****Credits:** 3

The course covers a wide range of advanced programming topics using Visual Basic.NET an object oriented, event driven programming language. The goal of the course is to develop computer programming skills beyond the basics covered in the introductory course. This includes arrays and collections, object variables, database programming, web programming, web services, and extensive use of the .NET classes.

**Prerequisite(s):** CSC\* H205.**CSC\* H211 - VB & ASP .NET Web Programming****Credits:** 3

This course covers a wide range of topics in the area of web application development using Microsoft ASP .NET. and the Visual Basic programming language. After an introduction to basic web design techniques, students will progress to more advanced ecommerce applications. Topics include working with server controls, validation techniques, managing state, authenticating users, and the use of themes. Relational databases are a big part of e-commerce applications and are also an important topic area in this course.

**Prerequisite(s):** CSC\* H205.**CSC\* H213 - Object-Oriented Programming Using C++****Credits:** 3

This course is designed for a more advanced programming student who wish to learn C++ with object-oriented techniques. The course will contain the basic concepts of an object-oriented programming language. Topics will include classes, constructor and destructor functions, function overloading, operator overloading, class inheritance, polymorphism, stream input/output, manipulator functions, templates and exception handling.

**Prerequisite(s):** CSC\* H205, CSC\* H113, or any programming language equivalent.**CSC\* H214 - Advanced C++ Programming****Credits:** 3

Topics include methods and techniques used in software development cycles. You will learn to move beyond a simple mastery of syntax. You will learn to increase productivity by combining tools, idioms, syntax, and libraries. Numerous hands-on exercises provide real-world experience in developing high quality C++. Throughout the course, you gain extensive hands-on experience with advanced C++ programming techniques. You will be required to develop complete programs from architectural design through to refining the implementation via a series of exercises.

**Prerequisite(s):** CSC\* H213.**CSC\* H217 - Object-Oriented Programming Using C#****Credits:** 3

This course offers students the opportunity to extend their experience and programming skills in the area of .NET development. C# (pronounced C Sharp) is an object-oriented programming language with syntax similar to JAVA, C# is becoming increasingly popular with developers in the areas of Windows applications and web sites using relational databases. Using the Visual Studio Integrated Development Environment (IDE) the course will cover topics including arrays, methods, classes, objects, inheritance, and exception handling. File Streams and database applications will also be an important part of the course.

**Prerequisite(s):** CSC\* H205 or CSC\* H113 or any programming languages equivalent.**CSC\* H227 - Web Programming with Java****Credits:** 3

This course picks up where the first Java Programming course left off, introducing the topics of threading and I/O. The remainder of the course serves to extend the student's knowledge of using Java to build enterprise-strength applications, with exposure to both "fat" and "thin" client structures. The course will cover currently used structures of JDBC connectivity, JavaBeans, servlets, JSP and XML and XHTML.

**Prerequisite(s):** CSC\*H220, CSC\* H113.

### **CSC\* H228 - Mobile Device Programming**

**Credits:** 3

This course is designed as an introduction to mobile device programming. It is intended for students with an interest in learning to develop applications which will run on Android based smart phones. Prior programming experience using Visual Basic, Java or C++ is expected.

**Prerequisite(s):** CSC\* H205, CSC\* H113 or any programming language equivalent.

### **CSC\* H229 - Programming II**

**Credits:** 3

This is a second course in Computer Science. The course emphasizes object-oriented techniques: using and creating classes and objects, inheritance, polymorphism, and interfaces. Other topics include models of abstractions of simulations, simple simulation techniques, file input and output, introduction to event-driven programming, recursion, elementary searching and sorting techniques. It uses a modern high-level programming language such as Java. A substantial project component is included. Students must plan for sufficient time for out-of-class, individual, independent work.

**Prerequisite(s):** C or better in CSC\* H113.

### **CSC\* H231 - Database Design I**

**Credits:** 3

An introduction to relational database design. Included will be topics on the evolution of database design, data structures, designing a database, normalizing a database design and implementation of databases utilizing one or more of the popular PC database packages available such as Microsoft SQL Server.

### **CSC\* H232 - Database Design II**

**Credits:** 3

Oracle is a complex, object-oriented DBMS that enables high-speed transactions, better business decisions and sophisticated applications. An understanding of its internal functions is essential to maintain integrity, enforce security, and improve performance. In this comprehensive introduction to the Oracle Environment, you will gain knowledge and skills you need to fully utilize Oracle features and develop robust, high performance databases.

**Prerequisite(s):** CSC\* H231 and CSC\*236

### **CSC\* H237 - Database Programming with VB.NET**

**Credits:** 3

This course covers a wide range of relational database programming topics using Visual Basic .NET and ADO .NET objects. Students will learn programming techniques using the Microsoft SQL Server relational database, the .NET System. Data namespace and classes, and disconnected architecture. Topics include SQL queries to create typed and untyped datasets, table relationships, parameterized queries, bound and unbound controls, and data views. Crystal Reports, XML Schema Designer, and Server Explorer tools are used in a hands-on class/lab environment.

**Prerequisite(s):** CSC\* H205.

### **CSC\* H250 - Systems Analysis and Design**

**Credits:** 3

This course is an introduction to systems analysis and design concepts and techniques. Using a case study method, students will conduct system surveys, create feasibility studies, and design typical computer systems used in business and industry.

**Prerequisite(s):** Any programming language equivalent.

### **CSC\* H252 - Information Systems Project Management**

**Credits:** 3

This course introduces students to the theory and practice of managing Information Systems and Business projects. Students will learn how to initiate, plan, execute, control, and complete projects in order to meet organizational goals. In addition to traditional project management tools like PERT and GANTT charts, students will learn to use a project management software simulation tool to assist them in managing classroom projects. A comprehensive final project will be assigned and completed either individually or in collaboration with a student project team.

**Prerequisite(s):** CSC\* H101 or any programming language equivalent.

### **CST\* H120 - Introduction to Operating Systems**

**Credits:** 3

An introduction to the personal computer, hardware, and Operating Systems software. The most popular microcomputer operating systems and graphical interfaces will be discussed in detail. After satisfactorily completing this course, the student will have a thorough understanding of the command structures of the operating systems. Students will receive a brief introduction to local area networks from a user perspective. Laboratory projects will be assigned throughout the course to reinforce course material.

### **CST\* H130 - Networking Essentials I**

**Credits:** 3

An in-depth study of communications in a networking Environment. Included is the history of networking, OSI model, data types, signaling, multiplexing, signal conversion, data transmission, topologies, channel access method, switching techniques, SDLC, HDLC, IEEE standards, Arcnet, Ethernet, Token Ring, TCP/IP IP, SNA, and the future of networking.

### **CST\* H235 - Network Systems**

**Credits:** 3

This course teaches the student, through lectures, demonstrations, and classroom labs, the skills and knowledge necessary to configure, manage, and troubleshoot a Windows Server network infrastructure. The focus of this course will be the installation, configuration, management and support of Active Directory, IP, DHCP and DNS. The course will also address security, the management and installation of services updates, and routing and remote access. Through the use of lab assignments, there is a heavy emphasis on the "hands-on" application of the concepts presented in the lectures and assigned readings.

**Prerequisite(s):** CST\* H130, or a basic understanding of computer networks.

### **CST\* H236 - Advanced Network Systems**

**Credits:** 3

This advanced course will cover higher level system management features of the Window Server Operating System. The focus will be planning, implementing and maintaining an Active Directory infrastructure. Through lectures and lab assignments, the student will learn about integration of Active Directory with DNS, administration of user accounts and groups, group policies, security, remote access, and performance monitoring.

**Prerequisite(s):** CST\* H235.

### **CST\* H239 - Servicing & Support of Local Area Networks**

**Credits:** 3

A CompTia A+ mapped certification preparation class covering mobile devices, networking technology, hardware, virtualization & cloud computing, and network troubleshooting. In addition, covers installing and configuring operating systems, expanded security, software troubleshooting, and operational procedures.

### **CST\* H248 - Practices in Security Management**

**Credits:** 3

Security Management entails the identification of an organization's information assets and the development, documentation, and implementation of policies, standards, procedures, and guidelines that ensure confidentiality, integrity, and availability. This course will prepare the student to understand the planning, organization, and roles and individuals involved in security, develop security policies, and utilize management tools used to identify threats, classify assets, and rate vulnerabilities.

**Prerequisite(s):** CSC\* H101.

**CST\* H274 - Network Security Technology****Credits:** 3

This course takes an in-depth look at network security concepts and techniques. Students will examine theoretical concepts that make the world of security unique. Also, this course will adopt a practical, hands-on approach when examining networking security techniques. Along with examining different network strategies, this course will explore the advancement of network implementation as well as timeless problem solving strategies.

**Prerequisite(s):** CST\* H130.**Computer Science****CSA\* H105 - Introduction to Software Applications****Credits:** 3

The computer plays a significant role as a productivity tool in many fields of study and in business. This course introduces the student to the basics of how to use computers as a tool rather than how computers work. It offers instruction and practice on the use of personal computers and a variety of application software. Included is work on word processing, spreadsheets, the operating system, and internet browsing. Basic computer science topics are included to the extent that they support the applications approach. A significant amount of lab work outside

**Prerequisite(s):** Successful completion of ENG\* H063, and MAT\* H095; successful completion of placement tests.**CSA\* H135 - Spreadsheet Applications****Credits:** 3

The course centers on the use of the current version of MS Excel at an advanced level. Other spreadsheets will be examined, (including online-based versions) as well as the exploration of online collaboration (in Wiki fashion). The instructional methodology will consist of exploring and applying advanced spreadsheet concepts to everyday situations and problems as presented in the textbook and as created by the instructor for the class. These are selected examples: Web query (getting data from a Web site directly into Excel), Goal seek, Excel database concepts, multilevel sorts, subtotals feature, Auto Filter, templates, converting table into a range, adding calculated fields to a table, drilling entries, 3-D references, linking workbooks, advanced functions..

**CSA\* H205 - Advanced Applications****Credits:** 3

This is a hands-on course that focuses on the advanced use of commonly used Microsoft Office applications (Word, Excel, PowerPoint, Access, and the integration of these). The following are selected examples of skills and concepts learned in this class: 1) WORD: inserting "quick parts," advanced mail merges, adding editing comments, using the "Track Changes" feature, inserting bookmarks and hyperlinks, and creating equations; 2) EXCEL: protecting worksheet in various ways, creating and modifying Excel tables, creating custom filters, and using advanced analysis tools, applying advanced functions; 3) ACCESS: creating tables using correct field types and properties, creating calculated fields, forms, reports, and sophisticated queries; 4) INTEGRATION: combining data and graphs in various ways using paste options, importing files from external applications, and exporting files in various formats.

**Prerequisite(s):** C or better in CSC\* H101 or CSA\* H105.**CSA\* H207 - Computer Applications in Management & Marketing****Credits:** 3

Designed for the career track business student, this course will supply a strong background in the computer skills necessary and useful in business/management and marketing. Specific applications will be based on IBM compatible machines using the Windows Environment, and will include work on business presentations, preparation of brochures, project scheduling, workgroup computing, and business on the internet. Additional topics will be considered.

**Prerequisite(s):** C or better in CSA\* H105, BMK\* H201 or BMG\* H202.**Criminal Justice/Public Safety**

### **CJS\* H101 - Introduction to Criminal Justice**

**Credits:** 3

This course introduces students to the criminal justice system on the local, state, and federal levels. Students will be exposed to the structure, function, and modern challenges faced by law enforcement, courts, and correctional agencies.

### **CJS\* H102 - Introduction to Corrections**

**Credits:** 3

An overview of the history and philosophy of the American correctional system, organization and operation of the components of the corrections systems, including correctional centers, prisons, probation, parole and community-based programs, correctional treatment programs ranging from pre-trial diversion to post incarceration procedures. Presentation and discussion of current issues and problems in corrections will be discussed.

### **CJS\* H103 - Introduction to Security**

**Credits:** 3

The historic, philosophical and legal basis of security, and the role of the security officer and his relationships with the public sector are studied. The functional operation of various specialized areas of security such as theft and risk control, security surveys and loss prevention, management in proprietary and government institutions, safety and fire protection and commercial and retail security is surveyed.

### **CJS\* H105 - Introduction to Law Enforcement**

**Credits:** 3

An introduction course that covers the basics of law enforcement, evolution of the police function, the police in the criminal justice system, and the social and psychological stresses and their effects on police work, health, and the family. The course also includes the study and analysis of the problems of law enforcement as they relate to the community.

### **CJS\* H210 - Constitutional Law**

**Credits:** 3

This course traces the history and development of the U.S. Constitution. Topics will include the Commerce Clause, procedural due process, states' rights and civil liberties, the concept of federal supremacy, and state constitutions.

**Prerequisite(s):** C or better in CJS\* H101.

### **CJS\* H211 - Criminal Law I**

**Credits:** 3

This course is an introduction to the history, theory, and practice of substantive criminal law. Major elements of statutory offenses are discussed. Reference to the Connecticut Penal Code is included.

### **CJS\* H217 - American Legal Systems**

**Credits:** 3

This course studies the process through which justice is administered and the history of the American legal system. Also examined are the Constitution of the United States as it applies to police forces. Rules of evidence with attention given to judicial notice, presumptions, the nature of real and circumstantial evidence, burden of proof, documentary evidence, hearsay evidence, confessions and admissions will also be studied. Particular emphasis will be given to evidence, arrest procedures, as well as search and seizure.

### **CJS\* H218 - Legal Aspects of Security Operations**

**Credits:** 3

This course traces the development of the legal aspects of private security in the United States. Material includes the law as it relates to private security, search and seizure, civil and criminal liability, and evidence. Legal requirements such as licensing, training, and education are also examined.

### **CJS\* H220 - Criminal Investigation**

**Credits:** 3

This is an introduction to criminal investigation. Study includes the presentation of rules and procedures of preliminary investigation; art of interrogation and recording of statements and confessions; collection and preservation of physical evidence at the crime scene; methods used in scientific interpretation of evidence; and preparation of cases for trial.

### **CJS\* H224 - Computer Crimes**

This course is designed to give the student an understanding of the various aspects of computer crimes, including hacking, computer break-ins, computer fraud, the introduction of viruses, worms, and trojan horses into computer systems, mail fraud, child pornography, pirated software, sabotage, and espionage. Study includes an overview of the various types of computer crimes likely to be encountered in today's computer Environment, as well as the methods of preventing, investigating, and prosecuting those crimes.

### **CJS\* H225 - Forensic Science**

**Credits:** 3

The purpose of this course is to familiarize the student with the recognition, preservation, and collection of physical evidence at the crime scene as well as the testing and analysis of the evidence at the forensic laboratory. The student will learn through lectures, class participation and discussion, and laboratory experiments.

### **CJS\* H229 - Crime Scene Investigation**

**Credits:** 3

This is an orientation course that covers the basics of crime scene investigation, including the crime scene, identifying and collecting evidence, and the capabilities and procedures of the crime laboratory.

### **CJS\* H230 - Security Management**

**Credits:** 3

This course examines the functions of an integrated security program from a management perspective. Topics to be discussed include how a security organization is managed, actual situations that may be encountered, the duties of the security director, effective management skills, and the day-to-day management of the security function.

**Prerequisite(s):** Grade of C or better in CJS\* H101.

### **CJS\* H232 - Industrial and Retail Security**

**Credits:** 3

This course examines the responsibilities of industrial security in preventing security related compromises against the company, individuals, and information. Thefts in companies and retail establishments will also be examined. Among other topics to be discussed are sabotage, espionage, physical security, theft prevention, internal control, and techniques of detection, apprehension and prevention.

**Prerequisite(s):** Grade of C or better in CJS\* H101.

### **CJS\* H233 - Institutional Security**

**Credits:** 3

This course is designed to give the student an understanding of the role of security as it applies to public and private institutions, such as hospitals, airports, and government agencies. The student will learn how an institution can be compromised by breaches of security. Topics to be discussed include physical security, internal control, processing clearances, safeguarding classified information, and visitor and area control.

**Prerequisite(s):** C or better in CJS\* H101.

### **CJS\* H234 - Computer Security and Data Protection**

This course is designed to give the student a working knowledge of computer security and data protection. Topics that will be covered include types of attacks on computer systems, risk analysis, strategies to counter these attacks and risks, internet security, hacking, and other criminal activity.

### **CJS\* H235 - Information Warfare and Security**

**Credits:** 3

This course traces the development of information warfare, terrorism, and espionage as they relate to the computer environment. Topics include the threats to military as well as commercial and economic security. The roles of individuals, corporations, and governments in dealing with information-related attacks will be examined. The problems and remedies associated with the topics will also be examined.

### **CJS\* H241 - Correctional Counseling I**

**Credits:** 3

This course is an introduction to various concepts, principles, and techniques of counseling as applied by trained professionals in the correctional setting. Group methods, evaluation, and therapeutic Environments will be examined as a means of promoting the understanding of the counseling process. Discussions will include the various counseling models and the history of counseling in correctional institutions and the community.

**Prerequisite(s):** C or better in CJS\* H101.

### **CJS\* H244 - Community Based Corrections**

**Credits:** 3

This course will examine alternatives to incarceration as viable sentencing options. Topics will include: the development of community corrections, parole, diversion, halfway houses, community service, house arrest, and electronic monitoring. The role of the victim in the correctional process will also be discussed.

**Prerequisite(s):** C or better in CJS\* H101.

### **CJS\* H246 - Juvenile Corrections**

**Credits:** 3

This course presents the correctional aspects of the history, philosophy and development of the juvenile justice system. Topics to be discussed include the rights of juveniles, alternatives to incarceration, incarceration, treatment methods, and current and future trends.

**Prerequisite(s):** C or better in CJS\* H101.

### **CJS\* H255 - Ethical Issues In Criminal Justice**

**Credits:** 3

This course is designed to give the student an understanding of the necessity for high standards of ethical and moral behavior on the part of the law enforcement officer. Material will include the consequences of unethical and immoral behavior on the part of criminal justice professionals. Topics include gratuities, favoritism, temptations, dishonesty, abuse and misuse of authority.

### **CJS\* H259 - Writing and Research in Criminal Justice**

This course emphasizes the practical aspects of gathering, organizing, and preparing written reports and other documents applicable to criminal justice professions. Students will practice the process and procedure of creating and completing successful professional documents in the criminal justice field, make use of technologies commonly used for research and writing in the criminal justice field, and learn the convention of evidence, format, usage, and proper documentation.

**Prerequisite(s):** C- or better in CJS\*H101

**Corequisite(s):** C- or better in ENG\*H102

### **CJS\* H261 - Victim and Offender Mediation**

**Credits:** 3

The process of victim and offender mediation and reconciliation is examined in this course. The effectiveness of the process in the offender rehabilitation will be discussed. Topics to be discussed include conflict resolution, bringing the victim and offender together, restitution of losses, reconciliation, mediation, and conflict management.

**Prerequisite(s):** C or better in CJS\* H101.

### **CJS\* H280 - Victimology**

**Credits:** 3

This course is a study of crime, its causes, and effects from the victim's perspective. The course looks at victim precipitation, restitution, and the varied involvement in, and consequences of, crime on the victim. Major perspectives on victimization as well as patterns of victimization will be analyzed.

**Prerequisite(s):** C or better in CJS\* H101

### **CJS\* H293 - Criminal Justice Cooperative Work Experience**

**Credits:** 3

Cooperative Work Experience in Criminal Justice is essentially cooperative training between the school and agency. This required course introduces the student to a specific field in the Criminal Justice system.

**Prerequisite(s):** 12 credits in CJS\*H courses, with grade of C or better.

**Cooperative Work Experience:** The course consists of: 1. Minimum 120-hour (volunteer) Cooperative Work Experience 2. Weekly one-hour Co-op Seminar

## **Dance**

The Division of Liberal Arts and Behavioral/Social Sciences encourages students to register for dance courses in order to develop appreciation of, and skills in, the performance arts. Some of the courses are required in career programs; others are designed for students' interests and personal development. Consultation with the dance advisor will help determine specific needs. Dance courses, except for DAN\* H101, are studio courses with a focus on movement. The history and theories of these dance genres are included experientially in class and through reading and writing assignments outside of class. For these studio courses, students must be physically able to perform the skills required in a dance class.

### **DAN\* H101 - History & Appreciation of World Dance**

**Credits:** 3

World Dance is designed to introduce students to dance in its creative, cultural and historical aspects. It will explore "a number of important ways in which dance functions in human societies-always keeping in mind that while dance is a universal human activity, it does not play the same role in every culture." (Grauer) This course includes seminar, video-viewing, and movement activities.

### **DAN\* H102 - Ballet I: Renaissance to Romantic**

**Credits:** 3

Ballet from the Renaissance to the Romantic period provides students with a basic understanding of the fundamental principles of ballet technique, encourages students to achieve a level of self-discipline and physical control, and instills an appreciation of the historical contributions of ballet to the overall development of dance as an art form.

**Note:** Studio course.

### **DAN\* H109 - Ballroom I**

**Credits:** 1

This course is designed to introduce students to the history, evolution, music, steps, and various stylings of ballroom dancing. Three standard style dances, Tango or Swing, the Waltz, and the Foxtrot and three Latin style dances, the Rumba, the Salsa, and the Cha, Cha, Cha, will be explored.

**Note:** Studio course.

### **DAN\* H110 - Rhythm Tap**

**Credits:** 1

This course is designed to introduce students to the rhythm tap genre-a collage of sound produced by using taps and body as an instrument. The cultural and historical perspectives of rhythm tap will be discussed.

**Note:** Studio course.

### **DAN\* H111 - Jazz I: Afro-Caribbean/American**

**Credits:** 3

Afro-Caribbean and American Vernacular Jazz Dance is designed to introduce students to the origins of jazz dance in America. Study emphasizes African and Caribbean, as well as "street" and "ballroom" influences. Basic skills of jazz movement, jazz music, and rhythmic awareness are included.

**Note:** Studio course.

### **DAN\* H112 - Jazz II: Broadway and Film**

**Credits:** 3

Musical Theater and Film Dance is designed to segue from American Vernacular Jazz Dance into concert jazz dance and Broadway dance. It continues with the historical (1930's-2000's) and cultural perspective particular to this American dance genre as well as its differentiating styles and techniques.

**Note:** Studio course.

### **DAN\* H113 - Modern I: Pioneers of America**

**Credits:** 3

Pioneers of American Modern Dance is designed to introduce students not only to the basic techniques of modern dance, but also to the social, historical, and cultural changes of the twentieth century that made America ripe for new dance forms. Important figures in the dance world from the turn of the century to 1940 will be presented, along with their techniques, theories of movement and compositional ideas. Exposure to this study will enable the students to integrate the thought behind the movement with the action.

**Note:** Studio course.

### **DAN\* H114 - Hip Hop**

**Credits:** 1

This course is designed to introduce students to the skills of Hip Hop dance with emphasis on general body technique and development, rhythmic awareness, rhythmic combinations of movement and various hip hop styles. It will segue from the Bee Bop and Doo Woo era into Locking, Popping and Breakin', 1980's and 1990's Street Style, and basic House, Voguing, Krumping among others. It includes the historical and cultural perspectives that are particular to this American dance genre and cultural lifestyle.

### **DAN\* H118 - Dance Pedagogy for Early Childhood**

**Credits:** 1

This course is designed to introduce students to the basic techniques and methodology for teaching dance to children, ages 2-5. Using the standards established by the State of Connecticut and the National Dance Education Organization, appropriate content for dance classes will be examined. We will view the dance class from a developmental perspective, identifying appropriate movement activities and strategies for teaching.

### **DAN\* H131 - Contemporary African Dance**

**Credits:** 1

This course is an introductory course to African dance. Students will learn the fundamentals of African dance through basic movement vocabulary and selected traditional dances. This course may include videos, lectures, readings, and discussions to give students a context for learning African dance. Additional instruction may include Afro- Caribbean techniques and dances, as well as other African Diaspora techniques and dances.

### **DAN\* H140 - Pilates/Wellness**

**Credits:** 1

This course focuses on the quality of movement, posture and breathing by increasing strength, flexibility, and balance. The holistic perspective includes physical awareness, cognitive reflection, nutrition, and insights from feelings and focuses on mindbody centering. Pilates/ Wellness is designed for the dancer, athlete, health professional or persons interested in overall wellbeing. This class meets the first ten weeks of the semester. Comfortable clothing is necessary.

**DAN\* H175 - Kinesiology for Dancers****Credits:** 3

This course, designed especially for those involved in dance, athletics or somatics, looks at the structure and function of the human body. Anatomical and mechanical principles are analyzed. We will focus on the musculoskeletal system as a mechanism for motion. Students are expected to have a foundation in dance or other body movement.

**Prerequisite(s):** Approval of Director.**Note:** This course will satisfy the science requirement for dance majors.**DAN\* H202 - Ballet II: Classical to Contemporary****Credits:** 3

Ballet from the Classical to Contemporary periods is designed to further the student's study of the technique of classical ballet and its history in the twentieth century.

**Prerequisite(s):** DAN\* H102. **Note:** Studio course.**DAN\* H209 - Ballroom Dance II****Credits:** 1

It is strongly advised that students take DAN\* H109 - Ballroom I prior to taking this course or have a foundation in ballroom dance. This course is designed to expand students' study of the history, evolution, music, steps, and styles of ballroom dancing. Three standard style dances, Swing, the Waltz, and the Foxtrot, and three Latin style dances, the Rumba, the Salsa, and the Tango, will be covered.

**DAN\* H213 - Modern Dance II: Second Generation America****Credits:** 3

This course encompasses the techniques, theories and philosophies of movement as presented by America's second generation from Cunningham to Alvin Ailey. The social and cultural changes that influenced this period's dance also will be explored. Exposure to this study will enable the student to integrate the thought behind the movement.

**Prerequisite(s):** DAN\* H113 or permission of instructor. **Note:** Studio course.**DAN\* H221 - Repertory/Ensemble I****Credits:** 3

Modern, Jazz or Ballet compositions by faculty or renowned choreographers will be taught, rehearsed and presented in concert. Performance skills of projection, clarity, staging, spacing and truth to choreographers' techniques will be practiced. Works for repertory may include Charles Weidman's Brahms's Waltzes, Anna Sokolow's Rooms, Balanchine's Tarantella, and Pilobolus' Improvisational Techniques.

**Prerequisite(s):** Permission of instructor.**Note:** Studio course. Additional rehearsals required.**DAN\* H222 - Choreographic Principles/Ensemble I****Credits:** 3

Choreographic Principles/ Ensemble is designed for students to discover sources of movement and develop the tools for structuring movement in time and space. It includes assigned composition problems and structured movement improvisation. Students may find their own personal statement in movement and develop a solo dance, and/or they may focus on making a group work. Students develop creative decision-making in working with a group. Elements of performance-costume, decor, lighting, staging-will also be explored and executed in formal concert. The Ensemble is the performing arm of the College.

**Prerequisite(s):** Permission of instructor.**Note:** Studio course. Additional rehearsals required.**DAN\* H224 - Choreographic Principles/Ensemble II**

**Credits:** 3

This course is designed for students to expand their knowledge of movement and dance and to continue to develop the tools for structuring movement in time and space. It includes assigned compositional problems and structured movement improvisation. Students will continue to explore their own personal statement in movement and develop solos and/ or group work. Students will continue to develop and demonstrate creative decision-making in working with an ensemble, both choreographically and in production. Tools and vocabulary continue to be offered in an environment open to creative communication. Elements of performance (costume, decor, lighting, staging) and production (publicity, press releases, stage and house management, scheduling) will be explored also.

**Prerequisite(s):** DAN\* H222 and permission of instructor. **Note:**

Participation in Dance Concert is mandatory.

**DAN\* H225 - Repertory/Ensemble II****Credits:** 3

This course is designed to expand students' study of dance compositions by faculty and renowned choreographers who will teach their work. Modern dance is emphasized but works may be from the jazz dance or ballet genre. The studied works will be videotaped and then rehearsed by the instructor. Students, working as an ensemble, will present these works in formal or informal concert. Performance skills of projection, clarity, staging, spacing, and truth to choreographers' intent and technique will be further practiced. Students will continue to develop and execute production skills related to production.

**Prerequisite(s):** DAN\* H221 and permission of instructor. **Note:**

Participation in Dance Concert is mandatory.

**DAN\* H232 - Ballet III****Credits:** 2

This course continues to provide students with an understanding of the fundamental principles of ballet technique, to encourage students to achieve a level of self-discipline and physical control, and to instill an appreciation of the historical contributions of ballet to the overall development of dance as an art form. Reading and writing component are done outside of class.

**Prerequisite(s):** DAN\* H202.

**Note:** Extra rehearsal hours in the studio are required.

**DAN\* H234 - Modern Dance III: Post Modern to Contemporary Dance in America****Credits:** 2

This course is an advanced level modern dance course that completes the historical trajectory by encompassing the post modern dance movement up until present day contemporary modern dance. Techniques, theories and philosophies of the post modern dance culture will be applied to the training and creation of work in this class, as well as advanced level contemporary dance techniques reflecting current dance trends, cultural and aesthetic movements, and artistic expressions in today's dance field.

**Prerequisite(s):** DAN\* H113 and DAN\* H213. **Note:** Studio

course.

**DAN\* H261 - Yoga****Credits:** 1

This course is designed to introduce students to the methods and skills necessary to understand and perform Yoga. Relaxation techniques and flexibility are stressed.

**DAN\* H264 - Yoga****Credits:** 2

This course is designed to introduce students to the methods and skills necessary to understand and perform Yoga. Relaxation techniques and flexibility training are stressed.

**Digital Arts Technology**

### **DAT\* H101 - Introduction to Digital Arts**

**Credits:** 3

This course is an introduction and overview of the digital arts. The basic elements, components and skills required for digital art development and production will be defined and explored. Topics include; applications of digital arts, presentation software, visual design principles, digital media design, Web design, configuring a multimedia system, emerging technologies, multimedia components, and interactive multimedia development.

**Prerequisite(s):** CSA\* H105 or equivalent experience.

### **DAT\* H102 - Introduction to Photography**

**Credits:** 3

Introduction to the fundamentals of photography concentrating on the use of the camera as a form of expression and communication. Manual camera functions and basic image editing procedures will be covered. Photographic composition, genres and ethics will also be considered through lectures and assignments.

**Note:** Students enrolled in DAT\*H102 will be responsible for purchasing a DSLR camera or other approved camera with manual functions.

### **DAT\* H104 - Multimedia Authoring I**

**Credits:** 3

Multimedia Authoring I is an introduction to the planning, development and management of multimedia software projects, Interaction Design, and algorithm analysis. Topics include; multimedia and instructional design, multimedia and interaction design, multimedia and the WWW, arrays, functions and methods, events and event handlers, objects, logic structures, repetition structures, programming and scripting languages, and variables.

**Prerequisite(s):** DAT\* H101.

### **DAT\* H106 - Digital Design**

**Credits:** 3

This course explores the uses of fundamental visual design principles in emerging technologies used to design and develop interactive electronic documents such as multimedia databases, multimedia electronic books, applications for hand-held devices, and other technologies. Topics include; elements of design, principles of design, XML, and designing PDF documents.

**Prerequisite(s):** DAT\* H101.

### **DAT\* H108 - Digital Imaging I**

**Credits:** 3

Digital Imaging I provides an in-depth study of digital image files and their uses in the realm of digital graphics, imaging and video. Topics include; alpha channels, composition and lighting, color theory, data compression, filters, raster graphics, vector graphics, gradients, layering, screen resolution and bit depth, and video display formats.

**Prerequisite(s):** DAT\* H101.

### **DAT\* H110 - Digital Video Production I**

**Credits:** 3

Digital Video Production I is an introduction to the three phases of video production; pre-production, production, and postproduction. Students will script, storyboard, shoot, and edit original short films. Topics include; alpha channels, aspect ratio, audio production, broadcast standards, computer monitors vs. video monitors, camera techniques, composition, compositing, compression, lighting, rolling credits, transitions, titles, and project management.

**Prerequisite(s):** DAT\* H101.

### **DAT\* H116 - Interactive Media Design**

**Credits:** 3

Interactive Media Design is a practical and theoretical approach to the development and application of interactive digital media for desktop, portable devices, and Web-based applications. Learners will utilize the latest technologies to design, develop and present interactive digital media content. Topics include; principles of interaction design, human-computer interaction, intermediate JavaScript and XML programming, and developing interactive PDF documents.

**Prerequisite(s):** DAT\* H104.

### **DAT\* H205 - Multimedia Authoring II**

**Credits:** 3

Multimedia Authoring II is an intermediate-level course in the application of advanced project development tools used in the creation of interactive multimedia for the edutainment, entertainment and Web industries. Students will learn and apply techniques used to create interactive multimedia for broadcast, electronic games, and WWW applications. Topics include; algorithm analysis, animation, Interaction Design and interactivity, introduction to Human-Computer Interaction, keyframing and tweening, objects and events, Lingo scripting, timeline-based authoring.

**Prerequisite(s):** DAT\* H104.

### **DAT\* H212 - 3D Graphics & Animation I**

**Credits:** 3

The 3D Graphics & Animation I course is an introduction to the design and application of digital character modeling and animation. Students will learn to design 3D modeled objects and examine and apply fundamental 2D and 3D graphic algorithms. Topics include; animation, camera and rendering, extrusions, lighting, modeling, polygons and primitives, surfaces, terrain, texture maps, transforms, and vectors.

**Prerequisite(s):** DAT\* H108.

### **DAT\* H215 - Multimedia Web Authoring**

**Credits:** 3

Multimedia Web Authoring utilizes the latest software technologies and methodologies to develop and deliver complete interactive multimedia software systems for Web-based applications. Topics include; advanced algorithm analysis, complex problems in Human-Computer Interaction, and advanced JavaScript and Action Script programming.

**Prerequisite(s):** DAT\* H205.

### **DAT\* H218 - Electronic Music Composition/ Audio Technology I**

**Credits:** 3

This course is an introduction to the history, art and science of electronic music and audio production. The history, elements, and tools of electronic music and audio will be defined and explored. Topics include: acoustic theory, analog and digital audio principles, recording techniques, sound sampling, electronic synthesis, MIDI, and audio for multimedia and web design.

**Prerequisite(s):** CSA\* H105 and permission of the instructor.

### **DAT\* H219 - Electronic Music Composition/ Audio Technology II**

**Credits:** 3

This course provides intermediate instruction in digital synthesis, digital sequencing software, and electronic composition methods. Students will complete a series of directed and independent compositional projects in a variety of styles. Topic include; construction of timbres, additive and subtractive synthesis, digital sampling, signal processing, and algorithmic composition.

**Prerequisite(s):** DAT\* H218, MUS\* H218.

### **DAT\* H220 - Acoustics and Sound Design**

**Credits:** 3

The advanced functions of the properties of sound, human hearing, electro-acoustic instruments, digital sound reproduction systems, sound synthesis, and psychoacoustics are examined. Students will develop and participate in a number of practical sound design and audio engineering projects.

**Prerequisite(s):** DAT\* H101.

### **DAT\* H224 - Digital Video Production II**

**Credits:** 3

This course examines advanced project development methods and tools for video production. Students will study and apply the processes involved in transforming a concept to a finished video product. Topics include; analysis, budget, copyright, scripting, storyboarding, sequencing, pre-production, production, and post-production. The learner will design, script, produce, edit, and complete an original video project.

**Prerequisite(s):** DAT\* H110.

### **DAT\* H226 - Motion Graphics for Film & Video**

**Credits:** 3

The study and application of state-of-the-art special effect techniques used in film and video industries will be explored. Topics include; compositing of multiple layers, masks and mattes, advanced motion controls, and advanced color keying.

**Prerequisite(s):** DAT\* H110.

### **DAT\* H230 - Digital Imaging II**

**Credits:** 3

The advanced study of the design and manipulation of digital graphic and image files will be realized through a series of experiential projects. Topics include; photo retouching, drawing with vector paths, creating special effects with multiple layer effects, and designing images for interactive electronic media.

**Prerequisite(s):** DAT\* H108.

### **DAT\* H234 - 3D Graphics & Animation II**

**Credits:** 3

This course will explore advanced techniques for character modeling and the design of virtual space. Topics include; lighting and atmospheres, environmental structures, organic modeling, and character construction. The learner will design, model, and animate a complete 3-dimensional virtual world.

**Prerequisite(s):** DAT\* H212.

### **DAT\* H236 - Digital Illustration**

**Credits:** 3

This course is an exploration of vector-based illustration. The major elements, components and skills required for the production of graphics used in a variety of fields will be developed.

**Prerequisite(s):** DAT\* H108 or equivalent experience.

### **DAT\* H237 - Principles of Sound Recording**

**Credits:** 3

This course presents an in-depth study of the techniques and methodologies used in studio and live recording. In addition to classroom assignments and exercises, students will be expected to complete field work resulting in the recording, editing, and mastering of a live or studio project. Topics will include two-track and multi-track recording, studio acoustics and design, analog and digital mixing consoles, microphone placement techniques, signal processors, and studio session procedures.

**Prerequisite(s):** DAT\* H218 or MUS\* H218.

**DAT\* H240 - Multimedia Authoring III****Credits:** 3

This course explores advanced multimedia systems and the theoretical and practical issues in designing interactive systems. Topics include; compression techniques, synchronization, user interface accessibility, indexing and retrieval techniques, operating system support for digital audio, video, and animation file formats, as well as network and transport protocols for multimedia. Emphasis will be placed on current design and delivery issues, software implementation and discussion of future directions.

**Prerequisite(s):** DAT\* H205.**DAT\* H290 - Digital Arts Project****Credits:** 3

Completion of a significant project under the guidance of an advisor in an area of mutual interest such study terminating in a deliverable software/media product with technical documentation. The project must be in an area directly related to one of the three program options.

**Prerequisite(s):** DAT\* H224 or DAT\* H230 or DAT\* H240.**GRA\* H150 - Introduction to Graphic Design****Credits:** 3

This course is an introduction to the basic principles and processes of Graphic Design. The basic elements, components and skills required for graphic design will be defined and explored. The majority of work is computer based. In class we will be using Photoshop. You may use a graphics program of your choice.

**Drug and Alcohol Recovery Counselor****DAR\* H101 - Issues in Drug and Alcohol Abuse****Credits:** 3

This course will introduce students to the substance abuse treatment field and discuss DARC admission and certification requirements. Students will explore key topic areas such as models of recovery; history of legislation and regulation; self-help and evidenced-based approaches to recovery, ethics, and confidentiality. Public health issues related to substances will be investigated, including trends in substance use, co-occurring disorders, advertising of tobacco and alcohol, costs to society, and continuum of care from prevention to aftercare.

**Prerequisite(s):** Eligibility for ENG\* H101.**DAR\* H111 - Addiction Counseling I****Credits:** 3

Students will learn, practice, and develop counseling skills such as attending, reflecting, active listening, interviewing, and mirroring as it relates to addictions counseling. Students will learn theories that are fundamental to addiction counseling and understand the relationship of theory to skills. Students will reflect on their roles as counselors and define the qualities, knowledge base, and skills essential to becoming a competent, ethical, culturally-aware counselor-in-training.

**Prerequisite(s):** Eligibility for ENG\* H101.**DAR\* H112 - Group Counseling Theory and Techniques****Credits:** 3

Students will be introduced to the concepts and theories of group counseling and group dynamics in the addiction field. Types of groups, group formation, and stages of group development, transitions, and termination of groups will be discussed as well as the ethical aspects of group work. Through a combination of didactic and experiential learning, students will have the opportunity to examine their own performances as group members and facilitators.

**Prerequisite(s):** Eligibility for ENG\* H101.**DAR\* H158 - Biology of Addiction**

**Credits:** 3

Students will be introduced to the basic pharmacology of drugs of abuse, and drug classification as well as the process of neurotransmission and brain functioning when drugs are introduced to the human body. Discussion of how each class of psychoactive substances alters neurotransmission and homeostasis will occur. The course examines the consequences of short- and long-term substance use, abuse, and addiction on all major bodily systems and the fetus.

**Prerequisite(s):** Eligibility for ENG\* H101.

**DAR\* H213 - Addiction Counseling II****Credits:** 3

This course builds upon the theoretical base presented in Addiction Counseling I and will encourage further development of encouraging, paraphrasing, summarizing and reflecting of feelings as they relate to conducting intake interviews, treatment planning, counseling, and the discharge process. Students will also learn about complex issues which include GLBT populations, HIV/AIDS, domestic violence, eating disorders, relapse prevention, specialized self help groups, ethical behavior, and multicultural competencies.

**Prerequisite(s):** Eligibility for ENG\* H101.

**DAR\* H220 - Co-Occurring Disorders Counseling****Credits:** 3

The purpose of this course is to educate students about the principles, assessment instruments, strategies, settings, and models for treating clients with co-occurring disorders in the addiction treatment setting. This course will provide education and training on models for treating co-occurring disorders, assessment practices, development of treatment plans, and counseling strategies that may be used in inpatient and outpatient settings.

**Prerequisite(s):** Eligibility for ENG\* H101.

**DAR\* H251 - Counseling Internship I****Credits:** 6

Students will spend 15 hours per week in a substance abuse treatment facility under the joint supervision of the DARC program Coordinator and a supervisor at the facility and attend a seminar once per week. Students will observe, practice, and develop competency in the 12 core functions of addiction counseling. As students develop increased competence, they will progress from active observers to co-counselors and then to counselors. Students will continue academic study during a weekly seminar. Students will be expected to reflect on their field work, participate in clinical supervision and peer group interaction.

**Prerequisite(s):** DAR\* H101, DAR\* H111, DAR\* H112, DAR\* H158; C or better in ENG\* H101 and permission of the program coordinator.

**DAR\* H252 - Counseling Internship II****Credits:** 6

A continuation of DAR\* H251, students will continue their field placements for 15 hours per week in the same substance abuse treatment facility. Students will refine their counseling skills and assume increased responsibility for implementing the transdisciplinary foundations and competencies required of addiction counselors. During the semester, students will function as a primary addiction counselor for one or more clients. The classroom component (weekly seminar) of this internship will prepare students for the certification exam and case presentation as well as provide for ongoing clinical supervision, personal reflection, and growth.

**Prerequisite(s):** C or better in DAR\* H251; C or better in ENG\* H101 and permission of DARC program coordinator. **Note:** DAR\* H251 and DAR\*H252 must be completed in consecutive (Fall /Spring) semesters.

**Early Childhood Education****ECE\* H101 - Introduction to Early Childhood Education****Credits:** 3

A study of the historical, philosophical, and social perspectives of early care and education. Emphasis will be on modern development and trends, along with an understanding of the organization and composition of early childhood education settings, which include curriculum materials, learning environments and the teacher's role.

**Note:** Four three-hour observations of various types of early childhood programs and field trips are required.

### **ECE\* H103 - Creative Experiences for Children**

**Credits:** 3

This course is designed to study the concept of creativity and the creative process as it applies to art and play for young children. At the completion of this course, the student will be able to set-up a creative play environment, facilitate children's creative play and develop an art philosophy and creative art program for children.

**Note:** Exploration of various media techniques and methods will be included. Field trips are required.

### **ECE\* H106 - Music and Movement for Children**

**Credits:** 3

This course is designed to have students acquire skills in order to plan and implement creative music and movement education experiences for young children. Areas of exploration will include singing, listening to music, rhythmic activities, chants, creating music, using instruments with children, multi-cultural music, creative dance and movement, musical games, music for children with special needs, and using music spontaneously in the classroom. The main goals of the course are to develop an understanding of the importance of music and movement education experiences in an early childhood environment, the role that music plays in the growth and development of young children, and how these experiences can be creatively planned, implemented, and integrated throughout the daily curriculum.

**Prerequisite(s):** ECE\* H101.

### **ECE\* H109 - Science and Math for Children**

**Credits:** 3

This course is designed to help students explore a variety of math, science, social studies and technology experiences suitable for use with young children. Math and science concepts are presented in relationship to everyday objects and experiences. Students will consider how math, science, social studies and technology concepts are embedded in classroom, family, and everyday experiences as well as how to support development of related concepts and skills.

**Note:** Emphasis will be placed on understanding these areas from a child development perspective.

### **ECE\* H141 - Infant/Toddler Growth and Development**

**Credits:** 3

An introduction to the care and teaching of infants and toddlers, which emphasizes the interrelationship between social, emotional, cognitive, physical, and language development. Age appropriate curriculum strategies will be based on developmental theories. Components of a high quality program will be explored.

**Prerequisite(s):** ECE\* H101. A physical examination is required by a doctor and a criminal background check are required before starting ECE\*H141.

**Note:** Students will be required to fulfill 8 weeks (four hours per week) of field placement work with toddlers in the Center for Early Childhood Laboratory School as well as complete three, 3-hour observations of infants in a child care setting. Placement is determined by the coordinator.

### **ECE\* H176 - Health, Safety and Nutrition**

**Credits:** 3

The relationship between health, safety, nutrition, and child development will be explored. Emphasis will be on the strategies needed to implement a safe, healthy, and nutritionally sound program. Integration of these areas into the total curriculum will be examined.

**Note:** Field trips are required.

### **ECE\* H206 - Administration and Supervision of Early Childhood Programs**

**Credits:** 3

An examination of the multi-dimensional role of the early childhood program director/administrator. Administrative styles, management tools, and interpersonal skills that contribute to effective leadership will be explored. Topics such as CT State licensing regulations, NAEYC accreditation, director certification, public policies, and professionalism will be discussed.

**Prerequisite(s):** ECE\* H101 or permission of the Early Childhood Education Coordinator.

### **ECE\* H210 - Observation, Participation and Seminar**

**Credits:** 3

This course is designed to help students to observe, interpret, and assess children's behavior and developmental characteristics and to increase awareness of typical and atypical patterns of learning and behavior at particular ages and stages in early childhood. The students will observe and participate in an accredited center, at the discretion of the Coordinator, in order to gain experience in observation, documentation and assessment while working with young children. In weekly seminars, students will focus on issues related to observing and understanding children's development.

**Prerequisite(s):** ECE\* H101. A physical examination by a doctor and a criminal background check are required before starting ECE\*H210.

**Note:** Students will spend a total of 60 hours (4 hours per week) observing, documenting, and interacting with young children in the Center for Early Childhood Education Laboratory School.

### **ECE\* H215 - The Exceptional Learner**

**Credits:** 3

The study of the "exceptional child" with emphasis on the history, laws, concepts, practices, and terminology used by professionals in the field. Accommodations and techniques used by teachers in an inclusive classroom will be covered. An observation of a preschool special education class is required.

**Prerequisite(s):** ECE\* H101, PSY\* H203 or permission of the Early Childhood Education Coordinator.

### **ECE\* H222 - Methods and Techniques in Early Childhood Education**

**Credits:** 3

The study of the knowledge and skills needed to plan, implement, and evaluate a developmentally and culturally appropriate curriculum. Experiences will focus on the design of the learning environment, the interaction between teacher, child and family, classroom management, and the fostering of opportunities to enhance the development of the whole child. Guidance of children's behavior will be explored.

**Prerequisite(s):** ECE\* H101, ECE\* H103, ECE\* H106, ECE\* H176, and ECE\* H231, ENG\* H101, PSY\* H111, SOC\* H101, should be taken concurrently with ECE\* H291. Written permission is required before enrollment.

### **ECE\* H231 - Early Language and Literacy Development**

**Credits:** 3

An introduction to language and literacy development in the young child. Exploration of the early childhood language arts curriculum which includes speaking, listening, writing, and reading skills will be examined. Emphasis on the influence of a child's cultural background and experiences on emerging literacy development will be explored. Creation of a literacy-rich environment that engages children in developmentally appropriate language arts experiences will be included. Field trips are required.

**Prerequisite(s):** ECE\* H101.

### **ECE\* H290 - Student Teaching I**

**Credits:** 3

This course is designed to develop specific skills needed by the student in order to assume the responsibilities in a classroom. Through guided supervision in the classroom and seminars, the student will gain the needed experience by putting theory into practice. The coordinator will place students in the College's Center for Early Childhood Education. Topics to be explored will include classroom management, daily schedules, curriculum and developmentally appropriate planning.

**Prerequisite(s):** ECE\* H101, ECE\* H103, ECE\* H106, ECE\* H176, and ECE\* H231, ENG\* H101, PSY\* H111, SOC\* H101. A physical examination by a doctor and a criminal background check are required before starting ECE\*H290. Written permission is required before enrollment.

**Note:** The student is required to fulfill 120 hours of work experience during the semester. (8 hours per week minimum)

## **ECE\* H291 - Student Teaching II**

**Credits:** 3

This course is a continuation of ECE\* H290. During this phase of the work experience, the student will concentrate on working directly with young children. The overall objectives are for the student to be able to manage a classroom independently, plan, organize, execute, and evaluate classroom activities on a weekly basis, and be able to critique effectively one's role in the classroom. The student will be under the supervision of an on-site supervisor and the College instructor.

**Prerequisite(s):** ECE\* H101, ECE\* H103, ECE\* H106, ECE\* H176, ECE\* H231, and ECE\* H290, ENG\* H101, PSY\* H111, PSY\* H204, SOC\* H101. A physical examination by a doctor and a criminal background check are required before starting ECE\*H291. Written permission is required before enrollment.

**Note:** The student is required to fulfill 192 hours of work experience (12 hours per week) during the semester.

The student will continue to gain work experience which includes eight hours per week at the Center for Early Childhood Education Laboratory School and four hours per week in a different setting. Individual placements are under the direction of the Coordinator.

## **Economics**

### **ECN\* H101 - Principles of Macroeconomics**

**Credits:** 3

An introduction to the basic structure of the United States economic system is presented. Topics include: types of economic systems, characteristics of capitalism, supply and demand, inflation and unemployment, the federal reserve system, and economic policy.

### **ECN\* H102 - Principles of Microeconomics**

**Credits:** 3

An introduction to the problems of scarcity and resource allocation as it pertains to households and firms. The course centers on production and cost analysis in the four major types of industry models. Topics include supply and demand, elasticity, consumer choice, government in the microeconomy and price determination under various market conditions.

**Prerequisite(s):** ECN\* H101.

### **ECN\* H130 - Consumer Economics**

**Credits:** 3

Study concerns the proper management of personal income and expenditures. Topics include: a study of inflation and business cycles, commercial and savings accounts, budgets, charge accounts, installment buying use of credit, home ownership, insurance and taxes.

### **ECN\* H250 - Money and Banking**

**Credits:** 3

This course examines monetary theory and policy with special attention to the monetary system, commercial banking, the thrift industry, central banking, and capital markets.

## **Electronic Engineering Technology**

### **EET\* H102 - Electrical Applications**

**Credits:** 3

An introduction to the fundamental concepts of electricity and electronic technology. A study of DC and AC electrical circuits with the emphasis on instrumentation, measurements, devices, and application of theory to practical systems. Topics covered include electrical circuits, applied electrical technology, transformers, motors and generators, electronic fundamentals and devices.

**Corequisite(s):** MAT\* H137.

**Lecture Hours:** 2

**Lab Hours:** 2

### **EET\* H104 - Electronic CAD and Fabrication**

**Credits:** 1

Introduction to the basics of double sided Printed Circuit Board construction and soldering components to these boards. completion of a small fabrication kit including PC Board, leading to better physical understanding of PCB's as a prerequisite to using OrCAD Layout software. The class then moves into the CAD laboratory to study the concepts of schematic capture (OrCAD CAPTURE) into a NETLIST and on to PCB layout.

**Lab Hours:** 3

### **EET\* H110 - Electric Circuits I**

**Credits:** 4

The fundamentals of direct current circuits are established. Emphasis is placed on the characteristic description of circuit behavior. Ohm's law and Kirchhoff's law are used to determine circuit characteristics. Circuit rules, methods and theorem are covered extensively. Resistance, capacitance, inductance and transient responses are introduced. Formal laboratory report writing is required.

**Corequisite(s):** MAT\* H172 or MAT\* H186.

**Lecture Hours:** 4

**Lab Hours:** 2

### **EET\* H114 - Electric Circuits II**

**Credits:** 4

The application of circuit analysis techniques acquired in Electric Circuits I are extended to circuits excited by AC sources. Emphasis is placed on solving circuit problems using complex numbers and phase diagrams. Topics include: reactance, frequency response, power, filter theory, mutual inductance, transformer theory, and an introduction to polyphase circuits. Formal report writing is required.

**Prerequisite(s):** EET\* H110.

**Corequisite(s):** MAT\* H185 or MAT\* H186.

**Lecture Hours:** 3

**Lab Hours:** 2

### **EET\* H126 - LabVIEW**

**Credits:** 2

Students will learn how to create "virtual instruments" using LabVIEW™, a powerful graphical programming language for data acquisition and manipulation. Emphasis is placed on standard programming structures, real-time data acquisition, mathematical manipulation and graphing.

**Corequisite(s):** MAT\* H172 or MAT\* H186.

**Lab Hours:** 4

### **EET\* H136 - Electronics I**

**Credits:** 4

Semiconductor physical concepts and P-N junction theory is established and applied to basic devices such as diodes, bipolar junction transistors, and field effect transistors. Circuit applications of these and other special devices are studied, with an emphasis on operating principles and analysis techniques.

**Prerequisite(s):** EET\* H110.

**Corequisite(s):** EET\* H114, MAT\* H185 or MAT\* H186.

**Lecture Hours:** 3

**Lab Hours:** 2

### **EET\* H208 - Applied Circuit Analysis**

**Credits:** 3

The analysis of RLC circuits using classical calculus for inputs which are both sinusoidal and non-sinusoidal are examined. Resulting first and second order differential equations are solved using classical methods and by use of Laplace transforms. Fourier series are investigated. Basic derivatives and integration are taught as they apply to RLC circuitry.

**Prerequisite(s):** EET\* H126, EET\* H114, MAT\* H185 or MAT\* H186.

**Lecture Hours:** 3

**Lab Hours:** 3

### **EET\* H232 - Electronics II**

**Credits:** 4

Characteristics of small signal amplifiers using BJT's and FET's are examined, and followed up with a study of linear op-amp circuits. Comparators and Schmitt Triggers using op-amps are also explored. Basic characteristics of power amplifiers and oscillators are studied, and the operation of the thyristor family of devices is introduced.

**Prerequisite(s):** EET\*H114 and EET\* H136

**Lecture Hours:** 3

**Lab Hours:** 3

### **EET\* H242 - Fiber Optics**

**Credits:** 3

The course will cover the basics of fiber optics, how it is manufactured, its applications and fiber performance. The different types of construction of fiber optic cabling will be discussed and illustrated, with the advantages and disadvantages of each. Different types of connectors will be covered in both the classroom and the laboratory with the student making many of the actual connections. Measurement of the transmission characteristics of cables will be measured in the laboratory using a Time Domain Reflectometer. The use of single mode and multimode cabling relative to the type of transmission will be discussed.

**Prerequisite(s):** EET\* H136, EET\* H252, PHY\* H122.

**Lecture Hours:** 3

**Lab Hours:** 3

### **EET\* H251 - Electronic Instrumentation**

**Credits:** 3

A study of the operating principles of electronic and electrical instruments. Both analog and digital instruments are covered. Sources of instrument errors and standards of measurement are included, along with the design of VOM circuits and basic electronic instruments. Also included is an introduction to LABVIEW (Basic Virtual Instrument Programming) and data acquisition.

**Prerequisite(s):** EET\* H126, EET\* H114.

**Corequisite(s):** EET\* H232, EET\* H252.

**Lecture Hours:** 3

**Lab Hours:** 3

### **EET\* H252 - Digital Electronics**

**Credits:** 4

The study of number systems, Boolean algebra, Karnaugh maps, logic gates and combinational circuits. This study provides the basis for investigating the operation of sequential circuits including flip-flop applications. Design of arithmetic circuits adders and subtractors and BCD are studied. Decoders, encoders, multiplexers and demultiplexers are included as an application of the basic gates. Use of Electronic WorkBench software to solve logic problems.

**Corequisite(s):** EET\* H114.

**Lecture Hours:** 3

**Lab Hours:** 3

### **EET\* H253 - Advanced Digital Electronics**

**Credits:** 3

A continuation of digital circuit design. Includes counters (asynchronous, synchronous types), multi-bit shift registers, logic families, A/D and D/A converters, and code converters. Static and dynamic RAM memory circuits used in computers are studied along with ROMs, masked PROMs and erasable PROMs. PLD design is explored extensively. Schematic entry and state diagram are methods learned to program a Xilinx FPGA. VHDL is introduced.

**Prerequisite(s):** EET\* H252.

**Lecture Hours:** 3

**Lab Hours:** 3

### **EET\* H256 - Microprocessors**

**Credits:** 4

A study of the fundamentals of Microchip Corporation's PICTM microcontroller architecture and high level programming language using Micro Engineering Lab's PIC BASIC PRO compiler. Programming concepts include looping, decisions, time delays, interrupts, and LCD display. Hardware is addressed via the M. E. Labs X1 experimenter board. The PBPro compiler is run within Microchip's MPLAB Integrated Development Environment allowing full simulation capability as well as use of the Microchip ICD2 In Circuit Debugger for observing hardware operation in a very controlled manner.

**Prerequisite(s):** EET\* H252.

**Lecture Hours:** 3

**Lab Hours:** 3

### **EET\* H268 - Control Systems**

**Credits:** 3

An introductory course which investigates primarily electro-mechanical control systems. Discrete control systems using relay logic and programmable controllers (PLC's) are studied. Open and closed loop analog speed control systems are closely investigated. Motion, work envelope, axis of movement and programming lead up to a project with a working robot.

**Prerequisite(s):** EET\* H126, EET\* H114, EET\* H232, EET\* H252, MAT\* H185 or MAT\* H186. **Lecture**

**Hours:** 3

**Lab Hours:** 3

### **EET\* H294 - Projects**

**Credits:** 2

Provides the opportunity to construct a project of interest to the student with the approval of the instructor. The course involves research, and written documentation for the project, as well as full implementation, testing, fabrication, troubleshooting, and final demonstration of the project including an oral presentation. Schematics and PCB layouts will be prepared using OrCAD Capture and PCB Editor.

**Prerequisite(s):** EET\* H104, EET\* H232, EET\* H252. **Lab**

**Hours:** 4

## **Emergency Medical Technician**

### **EMT\* H100 - Emergency Medical Technician- Basic (EMT-B)**

**Credits:** 6

This course includes classroom and clinical experiences and provides students the opportunity to develop the knowledge and skills required for EMT-B National Certification. Emphasis is placed on patient assessment, clinical signs and symptoms, pathophysiology and

pre-hospital care of patients. Areas of instruction include CPR, airway essentials, assessment and care of trauma and medical patients including infants, children and the elderly, rescue operations, hazardous materials and pharmacological interventions. Clinical rotation in an emergency room is required. Health Requirements: Students will be required to submit the completed immunization and medical compliancy requirements before participating in the clinical observation component of this program. Students will receive a packet of information describing current college policies from the course instructor. Criminal Background Checks: Many clinical sites are now requiring that criminal background checks, be completed on any students who will be attending a clinical rotation at those facilities. Students must follow instructions for obtaining a background check provided to them by the course instructor. Students who are found guilty of having committed a felony/misdemeanor may be prevented from participating in clinical experiences. If you cannot participate in a clinical rotation at an assigned facility, you may not be able to complete the objectives of the course. Specific situations are reviewed by college personnel. Students are responsible for fees associated with health requirements and background checks.

## Engineering Technology

### TCN\* H101 - Introduction to Engineering Technology

**Credits:** 3

Students will conduct research, including interacting with professionals in the field of Engineering and Technology, to evaluate careers of interest to the student. Student teams will employ technical skills, appropriate software and technology to solve projects related to engineering and technology. They will also evaluate the use of information and technology and how it affects our society. Necessary skills for academic and professional success, such as critical thinking, problem solving, teamwork, study skills, time management and ethics in engineering, will be presented. Students will be required to write a research project and present their findings to the class in an oral presentation.

## Engineering Science

### EGR\* H111 - Introduction to Engineering

**Credits:** 3

Introduces students to engineering and the engineering profession through the application of physical conservation principles in analysis and design. Topics include dimensions and units, conservation of mass, momentum, energy and electric charge, static force balances, material properties and selection, measurement errors, mean and standard deviation, elementary engineering economics, and design projects.

**Prerequisite(s):** C or better in MAT\* H186

**Lecture Hours:** 3

### EGR\* H201 - MATLAB for Engineers

**Credits:** 3

Introductory programming course that emphasizes engineering problem solving through programming, graphing, visualization and data analysis using MATLAB tools. This class will cover basic matrix algebra, plotting, curve-fitting, built-in functions, logical functions and user-defined functions.

**Prerequisite(s):** C or better in MAT\* H186 or MAT\* H185.

**Lecture Hours:** 2

**Lab Hours:** 2

### EGR\* H211 - Engineering Statics

**Credits:** 3

This course is an introduction to engineering mechanics via vector approach to static forces and their solution. Topics include: properties of force systems, free-body analysis, first and second moments of areas and mass, and static friction. Applications to trusses, frames, beams, and cables included.

**Prerequisite(s):** C or better in EGR\* H111 and C or better in MAT\* H256 **Lecture Hours:** 3

**EGR\* H212 - Engineering Dynamics****Credits:** 3

This course introduces students to the fundamentals of engineering dynamics, including rectilinear and curvilinear motion, translation, rotation, and plane motion; work and energy; and impulse and momentum. The basic principles of dynamics, vector methods and computer programming are applied to engineering problems.

**Prerequisite(s):** C or better in EGR\* H211 **Lecture****Hours:** 3**English****ENG\* H063 - Writing: Intro to the Essay****Credits:** 3

This course will enhance the student's confidence in expressing ideas and provide practice with sound writing mechanics. Emphasis is placed on practicing the writing process with a focus on rhetorical methods; skills are taught within the context of essay writing. In addition, students will read, critically assess and write as a response to the readings. Library and research techniques are practiced. This course requires a minimum of six (6) hours of outside work per week.

**Note:** This course is part of the Accelerated Learning Program combination of ENG\*H063 and ENG\* H101. Placement into the course(s) will be determined by Accuplacer scores: NG Reading 247-257. Students registered for both CRNs will have the opportunity to receive credit for both courses. These courses run in consecutive time blocks: ENG\* H101 is the primary course and will be offered first, then ENG\*H063 will continue through the second block as a workshop to support the work offered in ENG\* H101. In the ENG\*H063 class, students will prepare for and review questions from ENG\* H101, write short papers to reinforce concepts taught in ENG\* H101, review drafts, and work on reducing writing errors. Requirements for attendance in either one or both classes will be made on an individual basis. 3 Credits for ENG\* H101 and 3 credits for ENG\*H063 (not toward graduation). Student **MUST** receive a C or better (73) to pass this course.

**ENG\* H096 - Introduction to College English****Credits:** 3

This course is designed to prepare students for the reading and writing demands in Composition and other college-level courses by integrating reading, writing, and critical thinking. Student writing will focus on understanding, reporting on, reacting to, and analyzing the ideas of others. Texts will serve as models and sources for students to refine their skills in exposition, interpretation, and argumentation. Students learn and practice specific college-level skills through critical reading and writing, class discussions, lectures, group presentations or workshops.

**Prerequisite(s):** Appropriate score on placement test, or approval from Division Dean or advisor.

**Note:** Students must receive a grade of C (73) or better to pass this course. Additionally, a free, one-hour Supplemental Instruction session for reading, grammar, and writing support immediately follows this course 1 or 2 days per week based on placement cut scores, and is listed with each course.

**This course does not satisfy an English requirement or an elective in any degree program, nor do its credits count toward graduation.**

**ENG\* H101 - Composition****Credits:** 3

This course is designed to introduce students to the importance of writing and to develop their critical thinking, reading, and writing skills. The class will focus on the writing of expository essays, often in response to complex readings. This course will emphasize the necessity of revision as a means of producing college-level writing. Intensive library and research techniques are an integral part of this course.

**Prerequisite(s):** C or better in ENG\* H096, or C or better in ESL, or successful completion of placement tests, appropriate SAT score or recommendation of the Associate Dean of LABSS and instructor.

**Note:** May not be taken concurrently with any other English course except ENG\*H063.

### **ENG\* H102 - Literature and Composition**

**Credits:** 3

This advanced writing course is designed to refine student's critical reading and writing skills through in-depth analysis of literary genres such as fiction, poetry, and drama. Students will engage in sophisticated writing assignments which emphasize the importance of authoritative research and complex logical reasoning, interpretation, and argumentation. Students will apply literary theories while developing their understanding and appreciation of literature and its relationship to society.

**Prerequisite(s):** C or better in ENG\* H101 or recommendation of the Associate Dean of LABSS and instructor. **Note:** ENG\*H102 is an academic core course.

### **ENG\* H200 - Advanced Composition**

**Credits:** 3

This advanced writing course is designed to refine student's critical reading and writing skills through in-depth analysis of intellectually challenging texts. Students will engage in sophisticated writing assignments which emphasize the importance of authoritative research and complex logical reasoning, and argumentation. Topics to be addressed will be contemporary cultural issues central to present day academic discourse.

**Prerequisite(s):** C or better in ENG\* H101 or recommendation of the Associate Dean of LABSS and instructor.

### **ENG\* H202 - Technical Writing**

**Credits:** 3

This course involves the student in the study and practice of the basic skills and principles of technical writing for business and industry. The practice of writing is emphasized; graphic and design elements including designing visual formats are given secondary emphasis. The course focuses on the fundamental skills and formats of letter/memos, instructions, proposals, reports, and layperson writing (communicating difficult subjects to general audiences). Individual instructors may add other subjects.

**Prerequisite(s):** ENG\* H101.

### **ENG\* H211 - Short Story**

**Credits:** 3

This course is a study of the framework and the major movements, writers and works of short fiction. Emphasis is given to the various attempts to portray the response to the complexity of life and to examine the role of literature. It will, further, focus on the study of short prose fiction in order to develop the ability to read and write. The course informs understanding of how literary form suits both an author's and an age's aesthetic.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H214 - Dramatic Literature**

**Credits:** 3

This survey course provides students with an opportunity to learn about the world's great plays. The selected canon of dramatic writings begins with the early Greek playwrights, and continues through the Middle Ages, the Renaissance, Modern Europe, and both modern and contemporary American playwrights. The course provides students with a chance to develop a historical and critical appreciation of writers and their works, while also exploring some basic skills in playwrighting.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H215 - Studies in Children's Literature**

**Credits:** 3

This course covers selection, evaluation and critical study of books and materials available for children. Assigned readings may include folklore, poetry, fiction, and non-fiction, as well as discussion of outstanding writers and illustrators, past and present.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H221 - American Literature I**

**Credits:** 3

Students read and discuss leading writers of America to the Civil War. Assigned readings may include works of the Puritans, Jefferson, Franklin, Cooper, Emerson, Melville or Whitman. Critical and historical analysis is included. The period covered by this course corresponds to the period covered by HIS\* H201 - U.S. History I.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H222 - American Literature II**

**Credits:** 3

Students read and discuss leading writers of America from 1865 through World War II. Critical and historical analysis is included. Assigned readings may include Twain, James, Crane, Frost, Fitzgerald, Hemingway, and Faulkner. The period covered by this course corresponds to the period covered by HIS\* H202 - U.S. History II.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H231 - British Literature I**

**Credits:** 3

Students read and discuss representative writers of British poetry and prose to the eighteenth century. Assigned readings may include Chaucer, Shakespeare, Milton, Pope, Swift, and Johnson.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H232 - British Literature II**

**Credits:** 3

Students make an intensive critical and historical study of British writers beginning with Blake and the Romantics and ending with twentieth century writers.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H241 - World Literature I**

**Credits:** 3

This course is a study of representative works of world literature to 1715. The course emphasizes the study and consideration of the literary, cultural, and human significance of selected great works of the Western and non-Western literary traditions.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H242 - World Literature II**

**Credits:** 3

This course is a study of representative works of world literature from 1715 to present day. The course emphasizes the study and consideration of the literary, cultural, and human significance of selected great works of the Western and non-Western literary traditions.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H251 - African-American Literature**

**Credits:** 3

This survey of African- American literature will examine the Black experience through literature. It will begin with the eighteenth century and continue to the present.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H260 - Studies in Women's Literature**

**Credits:** 3

This course is a study of the representative works by women from historical, social, and literary perspectives and examines the literary impact of gendered identities. Emphasis is given to how gender roles develop and change and how women's views of themselves are reflected in their writing. From tracing the development of this literature, the class will consider the historical, philosophical, religious, and cultural perspectives that allow us to delve into the writing of major women writers. This course will focus primarily on Western writers, though not exclusively. Assigned readings may include writers from the Renaissance to the present.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H269 - Studies in Young Adult Literature**

**Credits:** 3

This course covers selection, evaluation, and critical study of fiction available for adolescents and young adults (ages 12-18). Students will learn about the young adult novel as a literary form with an emphasis on reading of representative fiction. The course will also include the history of the genre and interpretive approaches to texts, the exploration of common themes, as well as the opportunity to write young adult fiction.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H274 - The Graphic Novel as Literature**

**Credits:** 3

This course explores the use of the combination of words and graphic images to create effective storytelling. Both contemporary and historic examples of graphic novels will be examined.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H277 - Science Fiction & Society**

**Credits:** 3

In this course, students will develop skills in understanding and appreciating the genre of science fiction and its relation to other literary genres. Additionally, students will apply critical methodologies and investigate relationships between science fiction and society, thus confirming their skills of analysis and writing. Particular approaches to science fiction will involve Marxist, feminist, gender, psychoanalytical, and anthropological critical theories.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H278 - Contemporary Literature**

**Credits:** 3

This course examines post-WWII literature, including short fiction, poetry, and drama. This course will include discussions of literatures from around the world as well as new developments in literary studies, such as post-Colonialism and postmodernism.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **ENG\* H281 - Creative Writing**

**Credits:** 3

This course gives students practical experience in writing various literary genres. The course will include an introduction to the principles and techniques of creative writing aimed at developing the creative process. The emphasis will be on individual creative methods, creative reading and listening, editorial techniques, and the production of finished work, including possible preparation of manuscripts for publication.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

## **English as a Second Language**

ESL students registered prior to Fall 2015 may use up to 6 credits of intermediate and advanced levels of ESL courses to fulfill the modern language and/or arts and humanities elective requirements. For new students registered in Fall 2015 or onwards, ESL\* H169,

ESL\* H162 and ESL\* H157 only can be used to fulfill the General Education Requirements for Written Communication and Oral Communication respectively. However, transfer of ESL credits from NVCC to other institutions or from other institutions to NVCC are governed by the policies of the receiving institution.

The ESL courses are designed for students whose native language is not English. The sequence endeavors to help students attain a level of proficiency in English that will permit them to succeed in the academic or career programs of the college. The ESL sequence has six levels. The core of the sequence is the 6-credit reading/writing courses which integrate discussion and grammar into the content. There are grammar courses from levels one through five; oral communication courses at levels one, three and five; and pronunciation course at levels three and four. Placement in ESL courses is determined by the ESL office and is based on the Levels of English Proficiency (LOEP) exam and a writing sample. To be promoted to the next level, students must demonstrate mastery of the respective language learning competencies, which is determined by a grade of "C" or better and completion of all coursework. Students in upper levels of ESL may concurrently take some academic courses, in accordance with course prerequisites.

Students in ESL\* H152 - Reading and Writing V have the option to go to either ESL\* H162 - Reading and Writing VI, especially designed for those who earned a "C" or "C+" in ESL\* H152. Successful completion of this course with a "C" or better will promote students to ENG\* H101. For those ESL\* H152 students who earned a B- or higher or for those who demonstrated high placement scores at this proficiency level, they can take an accelerated class, ESL\* H169 - Writing VI that is taken concurrently with an ENG\* H101 ALP, which combined are known as Composition ESL ALP. After successful completion of the ESL ALP sequence, with a "C" or better, students progress to ENG\* H102 or a higher ENG course.

### **ESL\* H013 - Writing and Reading I**

**Credits:** 3

In this low beginning level course, students begin to develop basic skills in reading and writing. Coursework focuses on basic grammar structures and sentence construction. Vocabulary is increased through reading and writing.

**Prerequisite(s):** Successful completion of ESL\*H5030 (Real Life English) or specified score on ESL placement exam.

### **ESL\* H015 - Grammar I**

**Credits:** 3

In this low beginning level course, students will be introduced to patterns and rules of basic grammar structures. Students will practice and apply these structures through exercises, reading, writing, and discussion. This course requires a minimum of six hours of outside work per week.

**Prerequisite(s):** Successful completion of ESL\*H5030 Real Life English or specified score on ESL placement exam.

### **ESL\* H017 - Oral Communications I**

**Credits:** 3

In this low beginning level course, students will work toward improving their speaking and listening skills. Students will develop their oral communication skills, including pronunciation, through a variety of activities such as role playing, conversation, large and small group discussions, and oral reports.

**Prerequisite(s):** Successful completion of ESL\*H5030 Real Life English or specified score on ESL placement exam.

### **ESL\* H022 - Reading and Writing II**

**Credits:** 6

In this high beginning level course, students continue to develop reading and writing skills by reading extensively and writing effective sentences and structured paragraphs. Reading and writing also provide the basis for vocabulary and grammar development.

**Prerequisite(s):** C or better in ESL\* H013 or specified score on ESL placement exam.

### **ESL\* H025 - Grammar II**

**Credits:** 3

In this high beginning level course, students build on basic grammar structures and practice them with reading, writing, and speaking exercises.

**Prerequisite(s):** C or better in ESL\* H013, or specified score on ESL placement exam.

### **ESL\* H132 - Reading and Writing III**

**Credits:** 6

In this low intermediate course, students continue to develop reading and writing skills by reading extensively and writing effective sentences and structured paragraphs. Assigned readings (including whole works) inspire individual writing assignments as well as discussions in small and large groups. In addition to learning grammatical principles, students work on effective sentence structures, paragraph development and organizational skills in writing compositions.

**Prerequisite(s):** C or better in ESL\* H022 or specified score on ESL placement exam.

### **ESL\* H135 - Grammar III**

**Credits:** 3

In this low intermediate course, patterns and rules of grammar structures will be introduced, practiced, and applied in a meaningful context. Formal exercises, short writings, and communicative activities will be used to promote mastery of essential language structures.

**Prerequisite(s):** C or better in ESL\* H022 or specified score on ESL placement exam.

### **ESL\* H137 - Oral Communications III**

**Credits:** 3

In this low intermediate course, communication skills and fluency will be developed using authentic language. Students will develop increased self-confidence and competency through a variety of activities that address oral communication, pronunciation, listening and reading comprehension, and vocabulary development. Activities will include role-playing, interviewing, class and small group discussions, oral reports, and written exercises.

C or better in ESL\* H022 or specified score on ESL placement exam.

### **ESL\* H139 - Pronunciation III**

**Credits:** 3

This course will provide extensive, in-depth practice in English pronunciation with special focus on rhythm, stress, and intonation. Basic features of English phonology will be reviewed. Students will learn to evaluate their own speech in order to become more competent, self-assured speakers. Short readings and poetry will be used to facilitate the unique expressive and communicative features of spoken English.

**Prerequisite(s):** C or better in ESL\* H022 or specified score on ESL placement exam.

### **ESL\* H141 - Integrated Skills IV**

**Credits:** 3

This course is designed to help high intermediate level students strengthen reading and writing skills, as well as further develop proficiency in the use of grammar structures in authentic contexts. Short readings (including whole works) will be assigned as a basis for small group and class discussions and will also serve to introduce essential grammar rules, and expand vocabulary for application in a meaningful context. Writing tasks will be assigned to develop both sentence and paragraph structures. Students focus on writing and rewriting of paragraphs and essays to develop ideas, organization, clarity and accuracy in their writing.

**Prerequisite(s):** C or better in ESL\* H132 and permission of the ESL Program Coordinator.

**Note:** ESL students may use up to 6 credits of Intermediate and Advanced levels of ESL courses to fulfill the Modern Languages/ Arts and Humanities elective requirements.

### **ESL\* H142 - Reading and Writing IV**

**Credits:** 6

In this high intermediate course, students continue to strengthen reading and writing skills. Assigned readings (including whole works) as well as student writing form the basis for small group and class discussions. Students focus on writing and rewriting essays to develop ideas, organization, clarity and accuracy in their writing.

**Prerequisite(s):** C or better in ESL\* H132 or specified score on ESL placement exam.

### **ESL\* H145 - Grammar IV**

**Credits:** 3

In this high intermediate course, students will further develop proficiency in the use of grammar structures through group discussions, oral practice, written exercises, and short writings. Use of grammar structures in authentic contexts will be emphasized.

**Prerequisite(s):** C or better in ESL\* H132 or specified score on ESL placement exam.

### **ESL\* H149 - Pronunciation Workshop**

**Credits:** 3

This course is designed to help students improve features of their American English pronunciation that could confuse or distract listeners and interfere with understanding. By learning how the sounds of English are produced and how authentic rhythm, stress and intonation are expressed, students will increase the accuracy and clarity of their English pronunciation and speaking ability. Students will learn how to evaluate their own speech in order to become more competent, self-assured speakers.

C or better in ESL\* H139 or permission of the ESL Program Coordinator.

**Note:** ESL students may use up to 6 credits of Intermediate and Advanced levels of ESL courses to fulfill the Modern Languages/Arts and Humanities elective requirements.

### **ESL\* H152 - Reading and Writing V**

**Credits:** 6

In this low advanced course, students continue to refine reading comprehension and writing proficiency. Assigned readings (including whole works) as well as student writing provide the text for small group and class discussions. Through writing and rewriting essays, students work on organizational skills, development of ideas, clarity and the mechanics of effective writing.

**Prerequisite(s):** C or better in ESL\* H142 or specified score on ESL placement exam.

### **ESL\* H155 - Grammar V**

**Credits:** 3

In this low advanced course, key grammar structures will be learned and practiced through group discussions, oral and written exercises, and short writings. Use of grammar structures in authentic contexts will be emphasized.

**Prerequisite(s):** C or better in ESL\* H142 or specified score on ESL placement exam.

### **ESL\* H157 - Oral Communications V**

**Credits:** 3

In this low advanced course, fluency in oral communication and listening skills will be further developed. Communicative competency will be addressed in an authentic and meaningful setting. Taped lectures and conversations, oral presentations, interviewing, class and small group discussions, role playing and vocabulary development activities will enhance proficiency in English.

**Prerequisite(s):** C or better in ESL\* H142 or specified score on ESL placement exam.

### **ESL\* H162 - Reading and Writing VI**

**Credits:** 6

In this high advanced course, students continue to develop fluency, clarity, organizational skills and the mechanics of effective writing with a focus on the linguistic and rhetorical requirements of second language learners. Course content and writing assignments are based on reading selections, complete works, and student texts. Students write, revise, and edit drafts participate in group work, and confer with teachers and peers. Successful completion of this course with a "C" or better will promote students to ENG\* H101.

**Prerequisite(s):** C or better in ESL\* H152/5152 or specified score on ESL placement exam.

### **ESL\* H169 - Writing VI**

**Credits:** 3

This course is designed for the advanced ESL student who would like to complete their ESL course sequence faster with the benefit of concurrently taking ENG\* H101 ALP course. This course is designed to refine students' writing through intensive editing and revision

practices focusing on using Academic Word List vocabulary and accurate grammar structure usage. Paraphrasing and summarizing academic texts are integral. In addition, students will read, critically assess and write responses to readings.

B- or better in ESL\* H152 or specified score on ESL placement exam. Co-requisite: ENG\* H101 - Composition ESL ALP.

## Environmental Science

### ENV\* H110 - Environmental Regulations

**Credits:** 3

A broad view of federal, state and municipal environmental regulations as they apply to industry, commercial establishments, local governmental facilities and the individual citizen. Provides a practical approach to regulatory understanding to enable one to plan an effective and economically sound management system. Course topics include the Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substance Control Act (TSCA), SARA Title III (Community Right-to-Know), Resource Conservation and Recovery Act (RCRA) CT Transfer of Establishment Act (TASA) and federal, state and local regulations covering such topics as hazardous material transportation, in-ground tank storage and specific hazardous materials such as asbestos and PCBs. ISO 14,000 requirements will be discussed.

### ENV\* H120 - Introduction to Hazardous Materials

**Credits:** 3

Hazardous materials are associated with virtually all industrial activities. This course is designed for people who routinely come in contact with hazardous materials in the workplace. OSHA regulations, Material Safety Data Sheets (MSDS), toxicology, selection of protection equipment, ventilation and storage of hazardous materials will be covered. Fire, electrical, radiation and noise hazards will also be discussed. Students will use industrial supply catalogs, computers and the Internet to identify appropriate protective equipment for a range of hazardous materials.

### ENV\* H205 - Foundations of Environmental Chemistry

**Credits:** 3

The objective of the course is to study the chemical reactions in natural systems. The fate and transport of contaminants introduced into the environment by humans will be examined. Ways of analyzing for contaminants in the atmosphere, hydrosphere, and lithosphere will be identified and students will obtain practical experience with some of these techniques. Written lab reports will be required.

**Prerequisite(s):** CHE\* H111 or CHE\* H121.

**Lecture Hours:** 2

**Lab Hours:** 2

### ENV\* H240 - Principles of Soil and Water Resources

**Credits:** 3

The study of soil structure and various methods to reduce soil erosion. Discussion of soil chemical structure and its relationship to nutrient availability. Depletion of soil nutrients by leaching and excessive crop harvesting, and soil restoration will also be considered. The hydrologic cycle will be studied in detail, including surface water body and ground water characteristics. Soil chemical cycles for major plant nutrients and contaminants will also be investigated. A research paper is required.

## Fire Technology and Administration

### FTA\* H112 - Introduction to Fire Technology

**Credits:** 3

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives.

### FTA\* H116 - Building Construction

**Credits:** 3

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.

**Corequisite(s):** FTA\* H112.

### **FTA\* H118 - Fire Prevention and Inspection**

**Credits:** 3

This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation.

**Corequisite(s):** FTA\* H112.

### **FTA\* H122 - Fire Behavior and Combustion**

**Credits:** 3

This course explores the theories and fundamentals of how and why fires start, spread, and are controlled.

### **FTA\* H126 - Safety and Survival**

**Credits:** 3

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

### **FTA\* H130 - Fire Technology and Administration Tech-Prep Internship**

**Credits:** 3

This course is a directed study and service opportunity for those in a Tech-Prep program. It is designed to allow the participant to develop an awareness of the fire service and provide a service opportunity benefiting both the student and the community. To participate, a student, at a minimum, must be part of a Junior/Cadet/Apprenticeship/ Probationary program sponsored by a fire, rescue, emergency medical service or fire marshal's office. To obtain college credit for this program, the student must participate in the Tech-Prep program as prescribed for his/her high school. Credit for this course will not be granted separately. The student will be assigned a mentor from his/her sponsor and the Fire Technology and Administration program of Naugatuck Valley Community College. The student will be required to complete a project designed by the Department and agreeable to the mentor from Naugatuck Valley Community College. In addition, the student will be required to complete at least two assignments one of which will be in support of the major project. Prior to the start of the program the student will be assisted in developing his/ her program and what specifically will be required to obtain credit.

### **FTA\* H210 - Water Supply and Hydraulics**

**Credits:** 3

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

**Corequisite(s):** MAT\* H167 or MAT\* H172.

### **FTA\* H216 - Municipal Fire Administration**

**Credits:** 3

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.

**Prerequisite(s):** FTA\* H112.

### **FTA\* H218 - Sprinklers & Fixed Extinguishing Systems**

**Credits:** 3

This course studies wet and dry-pipe automatic sprinklers, both commercial and residential; pre-action and deluge systems; water spray and foam systems; standpipes; carbon dioxide, dry chemical, and halon extinguishing and explosion suppression systems; use of appropriate NFPA Standards.

**Prerequisite(s):** FTA\* H112.

**Lecture Hours:** 3

### **FTA\* H219 - Fire Investigation**

**Credits:** 3

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.

**Prerequisite(s):** FTA\* H116.

**Corequisite(s):** CHE\* H111 or Instructor Approval.

### **FTA\* H272 - Terrorism - First Responders**

**Credits:** 3

Many of the principles that apply to Haz Mat, EMS, and crime scene responses also apply at WMD responses. This course will provide additional information to help the First Responder understand informed, controlled, and safe responses to incidents involving weapons of mass destruction.

## **Geography**

### **GEO\* H102 - Introduction to Human Geography**

**Credits:** 3

This course is a study of interrelationships between the physical Environment and human activity with special emphasis on geographic factors which underlie current political, social, and economic problems.

### **GEO\* H111 - World Regional Geography**

**Credits:** 3

The interaction of the physical Environment with the social, cultural, political, and economic conditions in various regions of the world, and the diverse patterns of human activity which emerge from the interplay of these forces are examined. The course is organized on natural regions such as Anglo-America, Latin America, Europe, the Middle East, Africa, and the Pacific World.

## **Geology**

### **GLG\* H121 - Introduction to Physical Geology**

**Credits:** 4

This course will be devoted to studying the processes which form the earth's crust such as earthquakes, volcanoes, mountain building, rock and mineral formation, and erosion by wind, water and ice. How all of these processes are impacted by the theory of plate tectonics will also be discussed. Laboratories are required. Field work will also be included.

The objective of the course is to provide the student with a broad understanding of the surficial processes that form the earth. Interrelationships between the lithosphere and hydrosphere will be investigated. Plate tectonics as well as the all-encompassing framework for volcanic, earthquake and mountain building activities will be discussed.

**Prerequisite(s):** C or better in MAT\* H094/MAT\* H095, or an appropriate score on a college placement exam and eligibility for ENG\* H101.

**Lecture Hours:** 3

**Lab Hours:** 3

**Note:** Some field trips may be included.

## Health

### HLT\* H103 - Investigations in Health Careers

**Credits:** 3

This course is designed to assist students in meeting the expectations of a health care curriculum and career. The students will become familiar with the rigors of higher education and the specific skills needed to maximize their opportunity for academic and clinical success. The course will include a comprehensive overview of the duties and responsibilities associated with clinical competency. Interdisciplinary learning strategies, correlating clinical and didactic education, life management skills, work ethics, and critical thinking skills necessary for all health providers will be emphasized.

## History

### HIS\* H101 - Western Civilization I

**Credits:** 3

This course is an issue-oriented course of Western Civilization from the Ancient World to 1715 from a contemporary perspective. Topics selected on the basis of significance and relevance will include oriental despotism, the origins of political democracy, concepts and codes of justice, the first federal empire, feudalism and the emergence of secular nation - states, and the Renaissance and Reformation - as seen through the eyes of statesmen, philosophers, religious leaders, writers, artists, scientists, etc. of their day.

**Prerequisite(s):** Eligibility for ENG\* H101.

**Note:** Students may not receive credit for HIS\*H104 or HIS\*H121 in addition to HIS\*H101.

### HIS\* H102 - Western Civilization II

**Credits:** 3

This course is an issue-oriented study of Western Civilization from 1715 to the present from a contemporary perspective. Topics, selected on the basis of significance and relevance, will include change through revolution and evolution, industrialization and class conflict, individualism and collectivism, nationalism and imperialism, war and peace, totalitarianism, and the ecumenical spirit - as seen through the eyes of statesmen, philosophers, religious leaders, writers, artists, scientists, etc. of their day.

**Prerequisite(s):** Eligibility for ENG\* H101.

**Note:** Students may not receive credit for HIS\*H104 or HIS\*H122 in addition to HIS\*H102.

### HIS\* H121 - World Civilization I

**Credits:** 3

A study and appreciation of African, European, and American civilizations, and their interaction with each other up to 1600.

**Note:** Students may not receive credit for HIS\*H101 or HIS\*H104 in addition to HIS\*H121.

### HIS\* H122 - World Civilization II

**Credits:** 3

A study and appreciation of African, European, and American civilizations, and the increasing interdependence from 1600 to the present.

**Note:** Students may not receive credit for HIS\*H102 or HIS\*H104 in addition to HIS\*H122.

### HIS\* H123 - Contemporary Issues in World Civilization

**Credits:** 3

In-depth studies of some of the major problems that confront the world today are presented. Course content is likely to vary from one semester to another in order to keep up with the changing complexion of the world's problems.

### HIS\* H124 - Women of the World

**Credits:** 3

This course is a study of women as driving forces in history and women driven by historical forces. Portraits of outstanding historical and contemporary female personalities - pagan priestesses and goddesses, women poets, scientists, educators, healers and reformers are presented.

### **HIS\* H201 - U.S. History I**

**Credits:** 3

This course is essentially a chronological treatment of the social, economic, political and cultural development of the American people to 1865. Certain topics such as colonial life, the Revolution, the political thought of Hamilton and Jefferson, reform, slavery, abolition, and the Civil War are studied in depth.

**Prerequisite(s):** Eligibility for ENG\* H101.

### **HIS\* H202 - U.S. History II**

**Credits:** 3

The course is essentially chronological in its treatment of the period from 1865 to the present. Certain topics in the social, economic, political, and cultural development of the American nation, such as the Age of Industrialization, International Relations and World War I, the Depression and New Deal, World War II and postwar period including the Cold War, the Eisenhower Era, the Sixties and Vietnam are studied in depth.

**Prerequisite(s):** Eligibility for ENG\* H101.

### **HIS\* H210 - History of Colonial America**

**Credits:** 3

This course addresses the social, economic, political, and cultural development of the people of the British North American Colonies to 1783. Topics covered in this course will include the Americas prior to European colonization, early European exploration and settlement in the Americas, relations between Great Britain and the American colonies, the background and causes for the American Revolution, the development and operation of the American national government, and development of an American society/culture.

### **HIS\* H213 - The United States Since World War II**

**Credits:** 3

This course addresses the social, economic, political and cultural development of the United States between 1920 and the present. Topics covered in this course will include the culture and economy of the 1920s, the Great Depression and the New Deal, World War II, the Cold War, the Korean War, American society in the 1950s, the Civil Rights Movement, the Women's Rights Movement, the war in Vietnam, the Counterculture of the 1960s and '70s, the Reagan and Bush eras, the end of the Cold War, and the Clinton era.

### **HIS\* H215 - History of Women in the US**

**Credits:** 3

This course will examine the position of women in the United States from the late nineteenth century to the present. Topics of study will include the origins and issues of the women's movement in the nineteenth century, women's suffrage, the women's movement in the 1960's and 1970's, women and the law, women and patterns of work, women and business, women and religion, women and athletics, women and homemaking, women and assertiveness, women and sexuality, women and aging, women and divorce, and women and affirmative action.

### **HIS\* H218 - African-American History**

**Credits:** 3

This course will utilize historical, sociological, and cultural perspectives in the analysis of the current status of African-Americans in the United States. The quest for equality, problems and prospects, and the role of African-Americans in the development of American and world cultures will be explored.

## **Honors**

### **HON H200 - Honors Special Topics Seminar**

**Credits:** 3

In this course Honors students will examine a current, "real world" topic from an interdisciplinary perspective. Each student will produce a final research, design, or artistic product that demonstrates independent exploration of the topic. Required for honors designation. Topic varies each semester.

**Prerequisite(s):** Member of Honors Institute. "B" or better in ENG\* H101 and MAT\* H137.

## Horticulture

### HRT\* H101 - Landscape Construction

**Credits:** 4

This course provides applied experiences in assorted construction techniques necessary in the development of landscapes. Included are a survey of construction materials, deck design and construction, patio and walkway installation, stone wall construction, fencing, retaining wall design and construction. Earthwork calculations, measuring and materials estimating are included.

**Prerequisite(s):** C or better in ENG\* H101 and permission of the program coordinator. **Note:** Actual field exercises will be provided.

### HRT\* H102 - Woody Plants

**Credits:** 3

This is a basic introduction to common desirable, deciduous and evergreen trees, shrubs and vines for the natural and cultivated landscape. The course emphasizes identification as well as learning the attributes, growth habits and cultural needs of the plants. Nomenclature and fundamental tree biology are discussed.

### HRT\* H103 - Herbaceous Plants

**Credits:** 3

This course provides instruction in the identification and selection of annual and perennial herbaceous plants for various habitats. Students will develop an understanding of the plants' ornamental value in garden and landscape design, based on flowers, foliage, form and adaptability to the environment.

### HRT\* H104 - Soil Systems

**Credits:** 3

This course covers the relationships between soils and the environment with emphasis on common horticultural applications such as agricultural production, landscape functions, and greenhouse operations. It specifically focuses on soil texture and classification, the biological and chemical properties of soils, the impact of soils on the environment, and the principles and practices of modifying soils for horticultural applications.

### HRT\* H105 - Fruit and Vegetable Production

**Credits:** 3

Primarily a course for residential vegetable and fruit cultivation, the course provides basic knowledge and methods that can be applied on the commercial level as well. Included are topics on site selection and soil preparation, planting, pruning, fertilization and general cultivation of vegetables, small bush and large tree fruits.

### HRT\* H106 - Fruit Production

**Credits:** 3

This course will cover the current principles and cultural practices of tree, bush, and vine fruit crop production. The course provides basic knowledge and methods that can be applied on the commercial and residential level. Included are topics on site selection and soil preparation, planting, pruning and fertilization and general cultivation of a variety of fruiting plants. Site visits to fruit production sites will be included. Lecture and lab.

### HRT\* H107 - Vegetable and Herb Production

**Credits:** 3

This course will cover the current principles and cultural practices of traditional and hydroponic vegetable crop production. The course provides basic knowledge and methods that can be applied on the commercial and residential level. Included are topics on site selection

and soil preparation, planting, pruning and fertilization and general cultivation of a variety of vegetable plants. Site visits to agricultural businesses will be included. Lecture and lab.

### **HRT\* H115 - Turf Management**

**Credits:** 3

The establishment and maintenance of turf grass are studied in the course. Lawn, golf course, and athletic field care are emphasized. Students will also learn to identify the turf grasses, identify and control weeds, insects, pests and diseases.

### **HRT\* H124 - Floral Design I**

**Credits:** 3

The basic principles of design as applied to the art of floral arranging are examined and flower shop management operation.

### **HRT\* H202 - Landscape Design I**

**Credits:** 3

This course provides students with the basic knowledge and skills to create a successful landscape plan. Starting with the proper placement and design of driveways and walkways, it guides the student through the stages of developing an entire residential property. Appropriate plant selection is based on site characteristics and design principles and elements.

**Prerequisite(s):** HRT\* H102.

### **HRT\* H203 - Landscape Design II**

**Credits:** 3

This course is designed as a continuation of HRT\* H202. This course will aid students in developing skills in perceptual design, job bidding, as well as give an introduction to computer aided drafting, as related to horticulture landscaping.

**Prerequisite(s):** HRT\* H202 or permission of instructor.

### **HRT\* H204 - Computers in Landscape Design**

**Credits:** 3

This course is an introduction to utilizing computer applications in the landscape design profession. Material will cover the development of two-dimensional base plans, three-dimensional models, and two dimensional renderings. Also, examples of real life projects will be highlighted to illustrate the transition from computer drawings to construction. The student will develop a working knowledge of AutoCad, ProLandscape, Google Sketchup, and Adobe Photoshop.

### **HRT\* H207 - Landscape Maintenance**

This course is designed to assist the professional and amateur landscape gardener to maintain their gardens through an understanding of plant growth, pruning, nutrition, propagation, etc. The course also includes landscape estimating.

### **HRT\* H208 - Landscape Contract Administration**

**Credits:** 3

This course covers the topics of contracts, project estimation, and personnel management for small landscape businesses. The course will also review the legal requirements to start and execute landscape projects, maintain occupational licensure, and manage municipal planning review processes.

### **HRT\* H215 - Integrated Pest Management**

**Credits:** 3

This course reviews the concepts, principles, development and application of Integrated Pest Management (IPM) systems in the commercial horticultural field. IPM constitutes a series of pest control strategies that are more sustainable toward agriculture, natural resources, and urban health. This course will also provide an overview of all of the subjects that the student will need to be familiar with in order to pass the State of Connecticut Custom Grounds Supervisory Pesticide Applicators License Examination.

### **HRT\* H219 - Arboriculture**

**Credits:** 3

This course is designed to prepare landscapers for the State Arborist Exam. Topics include the biology, identification, selection, planting, management, preservation of trees and diagnosis of tree problems. It is recommended that if students lack extensive work experience they should have taken HRT\* H102 - Woody Plants and HRT\* H215 - Integrated Pest Management before taking the State Arborist Exam.

### **HRT\* H222 - Greenhouse Operations & Management**

**Credits:** 4

This course focuses on the selection, production and management of greenhouse and bedding plants, interior plantscape management and design, management of annuals and perennials. Plant physiology is related to the Environmental effects on plant growth.

### **HRT\* H223 - Greenhouse Management II**

**Credits:** 4

This course is a continued in-depth study of the commercial greenhouse industry. It is a complement to HRT\* H222. Included in the course is an in-depth look at the production of greenhouse crops, disease, and insect control. Interior plant maintenance, soils testing, and development of production programs with the use of computer aided programs will be used to better understand plant growth.

**Prerequisite(s):** HRT\* H222 or permission of instructor.

### **HRT\* H224 - Plant Propagation & Hybridization**

**Credits:** 4

This course is an in-depth study of the world of plant reproduction and genetics. This course is a complement to other courses offered in the Horticulture degree and certificate program. This course will give students the theoretical and practical skills needed to reproduce plants asexually, and through micropropagation. Included will be the use of the college propagation facilities to facilitate learning.

### **HRT\* H240 - Nursery Management**

**Credits:** 3

This course provides a basic understanding of how to start and manage a commercial plant nursery. Site and crop selection, irrigation and nutrition management will be addressed. Students will study the principles and practices of nursery crop production as well as fundamental business organization and marketing. Course activities include field trips to nursery sites.

**Prerequisite(s):** HRT\* H102 and HRT\* H103 or permission of program coordinator.

### **HRT\* H250 - Hydroponic Production**

**Credits:** 3

This course covers the production of agricultural crops utilizing hydroponic, aquaponics, and other modern technological means. Focus areas of the class will include plant root physiology, macro/ micronutrient supplementation, pH and alkalinity adjustments, the nitrogen cycle, current food safety practices and additional information required to grow/maintain successful agricultural crops. Hands on greenhouse assignments and field trips will be utilized, where applicable.

**Prerequisite(s):** HRT\* H222 - Greenhouse Operations & Management.

### **HRT\* H290 - CWE/Horticulture Co-Op**

**Credits:** 3

This course involves a work experience, special project, independent study or course substitution which will vary according to the student's needs and interests. A written report and weekly journal will be required and evaluated at the end of the course. Conferences among students, work study supervisory agency, and faculty facilitator will be held during the semester.

**Prerequisite(s):** 12 credits in Horticulture, C or better, and permission of Horticulture Coordinator, or Division Dean. **Note:** A two hour orientation/planning workshop at the beginning of the Co-Op is required.

## **Hospitality Mgt. (Foodservice Mgt. and Hotel Mgt.)**

### **HSP\* H100 - Introduction to the Hospitality Industry**

**Credits:** 3

An orientation to the business of hospitality and its various systems including restaurants, hotels, and institutions. The course surveys the hospitality industry's history, current business and career trends, operations management and organization, and forces shaping the future of the industry and its place in the economy.

### **HSP\* H101 - Principles of Food Preparation**

**Credits:** 3

A laboratory course which teaches the theory and develops skills in basic cooking methods and culinary techniques in the production of soups, salads, vegetables, stocks, and sauces. Meats, poultry, and seafood are prepared employing standard techniques with special attention to commercial and quality production. Tool and equipment use, weights, measures, and recipe conversion are discussed and practiced.

### **HSP\* H102 - Food Production and Purchasing**

A continuation and application of the culinary techniques and knowledge acquired in HSP\* H101 through the planning and preparation and group service of advanced menus. Discussion of meat, poultry, and fish identification, fabrication, and purchasing specifications, as well as food costing and menu pricing.

**Prerequisite(s):** HSP\* H101.

### **HSP\* H103 - Principles of Baking I**

**Credits:** 3

This course takes an expansive view of baking and pastry. Students will learn the basic principles of baking through lecture, demonstrations, assignments, and hands-on participation. Technique will be emphasized. Kitchen math, weights and measurements, quality and cost control, and sanitation will be incorporated into each lesson. Students will explore basic baking ingredients and their important characteristics in relation to baked goods. Recipes, both sweet and savory, will include various doughs and their accompanying fillings; pies and tarts; cakes, icings, and fillings; cookies and petit fours; pâte à choux; creams, custards, and mousse; and chocolate desserts.

### **HSP\* H108 - Sanitation and Safety**

**Credits:** 3

An in-depth coverage of commercial foodservice sanitation resulting in SERVSAFE® Qualified Food Operator certification as required by Connecticut law. Included are proper food handling procedures in receiving, storage, preparation, purchasing and service, as well as staff training and quality control SERVSAFE® Alcohol Certification also provided.

### **HSP\* H109 - Food Safety Certification (8 weeks)**

**Credits:** 1

Designed for the non-degree students employed in the foodservice industry. Aspects of applied commercial foodservice sanitation resulting in nationally recognized SERVSAFE® Qualified Food Operator certification as required by Connecticut law. Prevention of food-borne illness, sanitary procedures in the protection and service of food to the public, laws and regulations, sanitary design and employee training will be discussed.

**Note:** Eight weeks. Not open for credit for students who have successfully completed HSP\*H108.

### **HSP\* H125 - Wine and Viticulture I**

**Credits:** 3

Botanical study of the grape (vitis) and principles of enology (wine making) are studied and practiced. Students also explore viticultural (grape growing) techniques used throughout the world. Wine tasting sessions included.

**Note:** Per Connecticut State Law, persons under the age of 21 are not allowed to consume alcoholic beverages.

### **HSP\* H126 - Wine and Viticulture II**

**Credits:** 3

An in-depth coverage of the science and art of growing grapes, including all aspects of the physical vine life cycle and cultural considerations throughout human history. Other topics include biology, anatomy, climatic influences, and varietal and hybrid growing characteristics. Further instruction and practice in winemaking is offered.

**Note:** Per Connecticut State Law, persons under the age of 21 are not allowed to consume alcoholic beverages.

### **HSP\* H135 - Service Management**

**Credits:** 3

An exploration of "front of the house" hospitality operations, including styles and standards of dining room, lounge, and concierge services as well as dining room organization, customer relations, merchandising and sales promotion. Special emphasis is placed on manager/supervisor functions such as training, motivation, cashiering, revenue control and wine stewardship. Students will serve guests as the schedule dictates. Schedule adjustments may be requested to accommodate guest service.

### **HSP\* H202 - Catering and Event Management**

**Credits:** 3

A lecture/laboratory practicum emphasizing the management and planning of catering, banquet and conference service with indepth discussion of the meetings market and technology. Advanced culinary preparations will be practiced, stressing group service.

**Prerequisite(s):** HSP\* H101, HSP\* H102.

### **HSP\* H211 - Food and Beverage Cost Control**

**Credits:** 3

An in-depth study of the control function of the hospitality manager and its various applications in the purchasing, receiving, storing, issuing, production and sale of food and beverage. Operational planning and analysis, labor and labor cost control, and cost/volume/profit relationships are explored. This course may result in nationally recognized certification upon successful performance on certification examination.

**Prerequisite(s):** CSC\* H101 or CSA\* H105, HSP\* H100, HSP\* H101, MAT\* H095 or equivalent, or consent of Program Coordinator.

### **HSP\* H215 - Principles of Baking II**

**Credits:** 3

This course expands on the basic techniques and principles of Baking I, though it is not a prerequisite. Students will learn the more advanced baking procedures and their applications through lecture, demonstrations, assignments, and hands-on execution of recipes. Participation and proper technique and method are emphasized. Kitchen math, particularly baker's percentages, weights and measurements, quality control, and sanitation will be incorporated into each lesson. Baking as science will also be explored including the chemistry of the ingredients, techniques, and methods and their interactions. Students will learn to understand the structure of recipes. Recipes, will included classic and modern preparations of advanced pastries such as petit fours, choux paste, laminated doughs, and chocolate work. Sugar techniques will be included. Students will learn finishing and plating and dessert artistry.

### **HSP\* H216 - Artisan Bread**

**Credits:** 3

This course will serve as an introduction to hand crafted bread, using ferment & fresh yeast methods, with emphasis on understanding the chemical reactions among ingredients. Creativity and presentation of finished product will be highlighted. Students will be taught through lecture, demonstrations, assignments and active participation. Kitchen math, weights and measurements will be discussed throughout the course.

### **HSP\* H237 - Hospitality Marketing**

An analysis of the services market with regard to hotel and restaurant marketing and methods of advertising, promotion, public relations, pricing, and discussion of strategic planning and positioning.

**Prerequisite(s):** HSP\* H100.

### **HSP\* H241 - Principles of Travel and Tourism**

**Credits:** 3

A survey of today's travel industry and its primary segments, including recreation and leisure systems, the transportation and accommodation industries, destination development and characteristics of the travel market. The role and function of the travel agency and career opportunities will be explored.

### **HSP\* H242 - Hotel Management**

**Credits:** 3

A study of hotel and motel front office systems and procedures, including organization, business flow, reservations and rooming, guest accounting, and security. Management functions and operating statistics are discussed and practiced.

## **Human Services**

### **HSE\* H101 - Introduction to Human Services**

**Credits:** 3

This course offers an introduction to the Human Services field, including the history of the various service professions, an overview of the primary populations that receive services, information about a variety of mental health and social service agencies, and a discussion of successful treatment methods.

**Note:** This is the foundation course of the two core program courses.

### **HSE\* H115 - Child Advocacy in Human Services**

**Credits:** 3

The course presents concepts, policies, and practice in the broad field of child and family services and advocacy. Among the topics to be examined are the needs of children and families, the major policies and programs of social services designed for children and families, and the policy issues that emerge for planning for children and families. The intent of the course is to provide the student with a substantive base of knowledge about policies and practice in family and child services. Students will be helped to develop an overall orientation to family - as a unit of attention, as well as to the emerging service concerns of family support, family preservation, the need for continuity of family relationships, and to the various culturally competent approaches.

### **HSE\* H133 - Disabilities and Mental Health**

**Credits:** 3

This is a required course for all Human Services students wishing to pursue the Disabilities Specialist/Mental Health Option. This is an introductory course in disabilities and mental health. Its primary purpose is to familiarize students with both developmental and mental disabilities from childhood to adulthood. It examines the impact of physical and mental disabilities, major legislation, ethics, advocacy, medical and psychological concerns, rehabilitation, employment, social planning, and living and working in society for children and adults with disabilities and mental health issues. The physical and psychosocial aspects of developmental disability and mental health also are studied through a focus on education, family life, community, and values.

### **HSE\* H170 - Introduction to Gerontology**

**Credits:** 3

The course examines the biological, social, and psychological aspects of aging and the problems that are experienced by the aged in America. It explores the local, state, and federal programs and services available to the elderly and the caregiver. Topics covered include Alzheimer's Disease, Medicare, Social Security, living wills, and Hospice vs. home care issues.

### **HSE\* H171 - Death and Dying**

**Credits:** 3

An exploration of the stages of death and dying. Special emphasis will be placed on understanding grief and loss. The course will focus on the following: the dying person, sudden death and the effect on the family, cultural and economic issues, the broad moral aspects of death, and other related problems.

### **HSE\* H202 - Introduction to Counseling and Interviewing**

**Credits:** 3

This is a systematic study of the basic principles, methods, and current techniques employed in assessment, planning, interviewing, counseling, contracting, and interventions. The course develops student self-awareness of personal values and professional ethics. Students are expected to learn through theory, examination of their own values, and classroom application of interactional skills.

**Prerequisite(s):** C or better in HSE\* H101.

### **HSE\* H281 - Human Services Field Work I**

**Credits:** 3

Work experience in a human service agency is a major component of this required course. The student will have the opportunity to apply the values, concepts, and skills acquired in the introductory and other HS courses. This activity will be conducted under the supervision of the faculty coordinator and the professionals in the agencies in which the students are placed. (fall/spring) The course consists of 1.) 120-hour Field Work Experience 2.) Weekly Field Work Seminar that links field practice to issues related to working within a wide variety of community agencies.

**Prerequisite(s):** HSE\* H101, HSE\* H202, with a grade of C or better. Successful completion of 6 credit hours in Behavioral Sciences, ENG\* H101, or permission of the Human Services Coordinator or Division Dean.

## **Humanities**

### **HUM\* H130 - Philosophy and Practices of Yoga**

**Credits:** 3

This course investigates the philosophy of yoga, its origins, and its place in our contemporary lives. It teaches the different aspects of yoga and areas of study that encompass the foundational principles of the discipline. Students will learn the basic poses as well as meditation and breathing techniques.

## **Interdisciplinary Studies**

### **IDS H101 - First Year Experience**

1.5

The First Year Experience introduces students to diverse academic content, emphasizing the acquisition of learning strategies in preparation for rigorous college study. The content is designed to help students make a smooth transition to college. This course focuses on developing creative and critical thinking skills, developing information literacy and technology skills, improving written and oral communication, setting personal and academic goals, developing structured and consistent study habits, practicing effective time management, and becoming contributing members of the NVCC community. In addition, students will develop a comprehensive academic and career development plan leading to graduation.

**Note:** The course is required of all matriculating first-time, full-time students.

## **Languages**

### **ASL\* H101 - American Sign Language I**

**Credits:** 3

This course is designed to provide an introduction to American Sign Language (ASL), the language used by the deaf community in the United States. ASL introduces students to the fundamental of ASL grammar, vocabulary, fingerspelling, numbers, and visual-gestural communication. The introduction of deaf culture is integrated into this beginning-level course.

### **ASL\* H102 - American Sign Language II**

**Credits:** 3

This course is designed to continue to reinforce American Sign Language, the language used by the deaf community in the United States. This course continues with enabling the student in becoming more engaged with the use and content of ASL in the conversational setting. The continuation will provide the student with the skills necessary both receptively and expressively to appreciate and understand and utilize the language in its structure and format. Emphasis will be on vocabulary, ASL grammar, Deaf Culture and conversational skills.

**Prerequisite(s):** ASL\* H101 with a grade of C or higher.

### **ITA\* H101 - Elementary Italian I**

**Credits:** 3

This course focuses on the basic acquisition of the four skill areas (speaking, listening, reading, writing) for survival communication. There is constant exposure to the cultural diversity of the Italian world using audio and video tapes. Knowledge of the language and culture is further enhanced by the technological component which requires students to use the Internet for various class activities.

**Note:** ITA\* H101 is not open to students who have successfully completed three years of Italian courses in high school or who are native speakers except by consent of the Associate Dean of LABSS.

### **ITA\* H102 - Elementary Italian II**

**Credits:** 3

ITA\*H102 is a continuation of the skills taught in ITA\* H101. Emphasis is placed on a more fluid style of communication at all skill levels.

**Prerequisite(s):** ITA\* H101 or permission of the Associate Dean of LABSS.

### **SPA\* H101 - Elementary Spanish I**

This course focuses on the basic acquisition of the four skill areas (speaking, listening, reading, writing) for survival communication. There is constant exposure to the cultural diversity of the Hispanic world using audio and video tapes. Knowledge of the language and culture is further enhanced by the technological component which requires students to use the Internet for various class activities.

**Note:** SPA H101 is not open to students who have successfully completed three years of Spanish courses in high school or who are native speakers except by consent of the Associate Dean of LABSS.

### **SPA\* H102 - Elementary Spanish II**

**Credits:** 3

SPA\*H102 is a continuation of the skills taught in SPA\* H101. Emphasis is placed on a more fluid style of communication at all skill levels.

**Prerequisite(s):** SPA\* H101 or permission of the Associate Dean of LABSS.

### **SPA\* H201 - Intermediate Spanish I**

**Credits:** 3

This course is an intermediate Spanish course on the college level. Non-native and native speakers may enroll for credit in this course. The natural approach will be used in developing the four communication skills (listening, speaking, reading and writing). Students will study structure and grammar, read, converse, discuss and write in Spanish. A broad survey of Hispanic culture and custom will be presented.

**Prerequisite(s):** SPA\* H102 or permission of the Associate Dean of LABSS.

### **SPA\* H202 - Intermediate Spanish II**

**Credits:** 3

This course is a continuation of the skills taught in SPA\* H201. The natural approach will be used. Grammar and structural studies will continue, but emphasis will be placed on reading, writing, speaking and listening with content based on civilization and cultural topics. Practice on oral tapes is required.

**Prerequisite(s):** SPA\* H201.

## **Latino/Latin American Studies**

## **LAS\* H201 - Introduction to Latino Studies**

**Credits:** 3

This course provides an introduction to the history, literature, ethnicity, culture and socio-economies of Latinos in the United States.

**Prerequisite(s):** C or better in ENG\* H101.

## **Legal Assistant/Paralegal**

### **LGL\* H101 - Introduction to Paralegalism**

This course is an introduction to various aspects of the law, including but not limited to torts, contracts, criminal law and procedure and constitutional law. The course also surveys the structure and procedure of a number of court systems in the United States, and includes discussions of some topics of concern to the paralegal, including legal ethics, the rights of the elderly, the poor, the young and other disadvantaged minorities.

### **LGL\* H102 - Legal Research and Writing**

**Credits:** 3

Selected topics to develop skills in the use of legal encyclopedias, digests, reports, statutes, restatements, law reviews, and other research materials used by the legal profession are presented as an introduction to the uses of the law library. It is necessary that students do much of their legal research assignments in one of the many state or university law libraries located at various places throughout Connecticut. Students who are unable to devote several hours of research per week in one of the law libraries are advised not to enroll in LGL\*H102.

### **LGL\* H104 - Real Estate Practice**

**Credits:** 3

This course is an introduction to the law of real property, and includes the preparation and recording of deeds, easements, leases and other public documents, in addition to a large variety of other documents, forms and procedures that a paralegal will encounter in real estate practice.

### **LGL\* H204 - Criminal Procedure**

**Credits:** 3

This course enables the student to utilize the classroom as a learning law laboratory since it will explore the Bill of Rights and the Fourteenth Amendment in detail as well as the entire United States Constitution. Constitutional law cases will be studied in the context of criminal procedure issues evolving from the precedents set by the United States Supreme Court.

### **LGL\* H206 - Bankruptcy Law**

**Credits:** 3

This course will provide students with a thorough review of the United States Bankruptcy Code. The course is tailored to explore the general functions of the Bankruptcy Court. The applicable rules and proceedings for various types of bankruptcy cases will be thoroughly discussed.

### **LGL\* H208 - Litigation**

**Credits:** 3

As an introduction to civil and criminal procedures, this course includes a survey of the functions of the federal and state court systems. The preparation of documents relative to the trial and appellate process is examined.

### **LGL\* H209 - Probate Practice and Estate Administration**

**Credits:** 3

This course is an introduction to the law of wills, trusts and estates, and includes the law of intestate succession as well as a survey of the probate system. This course will help to prepare the paralegal to become familiar with the various forms and documents associated with probate and estate practice.

### **LGL\* H210 - Family Law**

This course will provide a strong background in the area of family law, with special emphasis on family law practice, including litigation. Other family law topics such as adoption, custody, community property, and child support are thoroughly investigated.

### **LGL\* H230 - Advanced Legal Issues Seminar**

**Credits:** 3

This course will be taught as a seminar and through a series of lectures. A guest speaker is also likely to participate. The problemsolving method will be used to examine critical issues in the wake of current legal events and new trends in the law.

## **Manufacturing**

### **MFG\* H104 - Manufacturing Processes**

**Credits:** 4

Students study the theoretical concepts involved in the process of manufacturing parts as well as the development of the knowledge and skills required in the manufacturing process. Laboratory study emphasizes Milling, Drilling, Turning, Grinding & other manufacturing processes. Laboratories will involve setup and procedures for various manufacturing processes.

**Lecture Hours:** 3

**Lab Hours:** 2

### **MFG\* H105 - Manufacturing Math II**

**Credits:** 3

Second course in manufacturing mathematics. A further study of arithmetic and trigonometric operations applied to manufacturing circumstances. The following geometric entities are studied in detail: the circle, regular and irregular polygons, the right triangle and oblique triangles. The application of angular arithmetic including the study of: angle decimal conversion, the Pythagorean theorem, Sin, Cos, and Tan functions, and the Law of Sines and Law of Cosines.

**Prerequisite(s):** Completion of Machine Technology Level I Certificate or with consent of instructor, MFG\*H051: Manufacturing Math I (non-credit).

### **MFG\* H106 - Computer-Aided Manufacturing I**

**Credits:** 3

Basic CNC setup and operations with an introduction to automation programming, and tooling for CNC applications will be discussed. Basic functions using industry standard PLC controls will also be covered. Laboratory will include practice in setup and operation of CNC lathes and milling machines.

**Prerequisite(s):** MFG\* H104.

**Lecture Hours:** 2

**Lab Hours:** 2

### **MFG\* H115 - Safety in the Workplace**

**Credits:** 1

An introduction to safety and health issues encountered in a manufacturing environment. Manufacturers place great emphasis upon safety in the workplace as does Federal and State authorities. This course will introduce the student to the concepts of personal and workplace safety requirements of manufacturers and of governmental oversight agencies. Topics will include personal protective equipment [PPE], machine guarding mechanisms, confined space entry, lockout/tagout, hazardous material and waste operations, material safety data sheets [MSDS], the Occupational Safety and Health Act [OSHA], bloodborne pathogens, and ergonomics.

### **MFG\* H120 - Metrology**

**Credits:** 3

An introduction to the techniques of measurement in manufacturing, with a focus on the importance of delivering measurements reliably and accurately on a daily basis under a range of different conditions.

### **MFG\* H124 - Blueprint Reading I**

**Credits:** 2

First course in blueprint reading. The study of orthographic projection. Topics include lines and their uses, auxiliary views, sectional views, basic and special dimensioning, dimensioning practices for holes, chamfers, angle, tapers, keyways diameters and radii. Also, geometric tolerancing and dimensioning is covered.

### **MFG\* H125 - Blueprint Reading II**

**Credits:** 3

Second course in blueprint reading. A further study of simple and complex drawings for machining or assembly purposes. Topics include the application and meaning of geometric characteristics and controls, the metric system, weldment, forging and casting drawings and procedures, communication with freehand sketches, blueprint terms and abbreviations.

**Prerequisite(s):** Completion of Machine Technology Level I Certificate or with consent of instructor, MFG\* H124 - Blueprint Reading I.

### **MFG\* H126 - Drafting**

**Credits:** 3

An introduction to drafting as a technical language. Topics included are: use of the drafting instruments, geometric constructions, orthographic projection, pictorials, sectional views, and descriptive geometry as it relates to auxiliary views and developments. Emphasis will be placed on developing traditional board drafting techniques and geometric constructions.

### **MFG\* H151 - Manufacturing Machining: Drill Press and Saw**

**Credits:** 1

Course on sawing and drilling machines. Topics covered include use of cutoff saws, use of drill presses, using the vertical band saw, drilling tools, countersinking, reaming and counter boring.

### **MFG\* H152 - Manufacturing Machining: Grinding**

**Credits:** 2

Course on the use of various grinding machines. Topics covered include selection and identification of grinding wheels, truing, dressing and balancing wheels, grinding fluids, using the horizontal spindle reciprocating table surface grinder, using the cylindrical grinder, and using the tool and cutter grinder.

### **MFG\* H153 - Manufacturing Machining: Bench Work**

**Credits:** 2

A basic course in the fundamentals, principles, practices and tools used in semi-precision and precision layout and in the various methods, and procedures for common machine shop bench work. Topics include measurement systems, layout principles, hand tools, and power tools.

### **MFG\* H154 - Manufacturing Machining: Lathe I**

**Credits:** 2

First course in the use of the lathe. Topics include identification of major components of the lathe, tool holders and tool holding, cutting tools, operating the controls, facing and center drilling.

### **MFG\* H155 - Manufacturing Machining - Milling I**

**Credits:** 2

First course on the vertical and horizontal milling machines. Topics to include cutting tools and holders, setups, spindles and arbors, work holding methods.

### **MFG\* H171 - Introduction to Lean Manufacturing**

**Credits:** 3

The purpose of this course is to provide the student with the fundamental knowledge of current continuous process improvement methodologies in use today within competitive manufacturing environments. This introductory course will expose the student to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. This course will be

presented following the lean-six sigma process methodology of DMAIC (Define, Measure, Analyze, Improve, and Control) to ensure that at the completion of the course, the student will be competent to participate effectively as a team member in lean implementation projects.

### **MFG\* H172 - Introduction to Lean Supply Chain Management**

**Credits:** 3

This course is an introduction to the basic principles and methodologies of Supply Chain Management. The course reviews the lean principles needed to understand and maintain the supply chain. Key concepts are covered such as Value Stream Mapping, customer/supplier roles, supplier types, metrics, quality systems, quality audits, communication, and information flow. Class activities, group assignments, and case studies are emphasized for real-world learning experiences.

### **MFG\* H177 - Machine Technology Fundamentals**

**Credits:** 4

First course in the use of the manual machines - lathes, milling machines, surface grinders, drill presses and saws. Topics include identification of major components of these machines, tool holders, cutting tools, and cutting variables. Students will be introduced to the function and operation of the controls in order to perform common functions such as drilling, tapping, reaming, boring, milling, facing, turning, grinding, and sawing.

**Prerequisite(s):** Acceptance into the Advanced Manufacturing Machine Technology or Fundamentals of Machine Technology program

### **MFG\* H178 - CNC Fundamentals**

**Credits:** 3

This course covers safety, set up, basic programming and operations of CNC Lathe and Milling centers. Students will be learning machining theory, planning and producing projects using CNC lathes, milling centers and accessories.

**Prerequisite(s):** Acceptance into the Advanced Manufacturing Machine Technology or Fundamentals of Machine Technology program

### **MFG\* H200 - Manufacturing Management**

**Credits:** 3

This course introduces the student to the structure and organization of manufacturing management in an industrial society. The role of various management functions including strategic planning, industrial cost accounting, inventory management, and quality control will be studied.

**Lecture Hours:** 3

### **MFG\* H201 - Computer-Aided Manufacturing II**

**Credits:** 3

This course discusses CNC programming, analog programmable logic control programming, and interfacing controllers, and machine tools. Laboratory practice in writing CNC programs, robotics programming and interfacing, and analog programmable logic controller programming will be studied.

**Prerequisite(s):** MFG\* H106.

**Lecture Hours:** 2

**Lab Hours:** 2

### **MFG\* H210 - Materials of Engineering**

**Credits:** 4

Study of the structure and properties of engineering materials. Materials selection, processing and heat treatment are studied. The changes in structure and properties during forming, machining, and heat treating operations are discussed. Selected experiments to demonstrate the effects of processing, including heat treatment on the properties of engineering materials. Standard materials tests are also performed.

**Prerequisite(s):** MFG\* H104, CHE\* H111.

**Lecture Hours:** 3

**Lab Hours:** 2

**MFG\* H217 - Tool Design****Credits:** 5

The course is designed to teach the theoretical principles, commercial standards and techniques for the design of metal cutting tools, jigs, fixtures, gages and dies. Application of the theory and principles learned in the classroom to design problems. The design problems will include metal cutting tools, jigs, fixtures, gages and dies.

**Prerequisite(s):** CAD\* H150, MFG\* H104, MFG\* H210, MAT\* H185.**Lecture Hours:** 3**Lab Hours:** 4**MFG\* H230 - Statistical Process Control****Credits:** 3

Presents a modern approach to quality adapted from the science of statistics. The scope of study ranges from basic statistical concepts, through the history of statistical quality control and the contributions of pioneers like Deming, Juran and Taguchi. Traditional methods of control charts for both variables and attributes and acceptance sampling are presented, as well as the more modern methods. Simple, effective graphical problem-solving tools, histograms, run charts, stem and leaf displays, Pareto charts, cause and effect diagrams and capability ratios (CP & CPK) are covered. The computer is utilized as an aid in calculation and control chart preparation.

**Prerequisite(s):** MAT\* H172.**Lecture Hours:** 2**Lab Hours:** 2**MFG\* H239 - Geometric Dimensioning and Tolerancing****Credits:** 3

A study of the industrial accepted ANSI Specification Y14.5-1973 and ANSI Y14.5M-1982. The ANSI Y14.5 specification creates a unified language through which engineering requirements are specified with respect to actual function and relationship of parts features. Subject matter includes the application of form, profile, orientation, runout, and location types of geometric characteristics, including the application of the feature control frame and tolerance and datum modifiers.

**Lecture Hours:** 3**MFG\* H248 - Computer-Integrated Manufacturing (CIM)****Credits:** 3

This course discusses computer generated CNC programming and computer based additive manufacturing techniques. In addition students will gain an understanding of how to use Mastercam to generate programs for both milling and turning applications. Laboratory includes hands on application of course theory.

**Prerequisite(s):** MFG\* H201.**Lecture Hours:** 2**Lab Hours:** 2**MFG\* H254 - Manufacturing Machinery - Lathe II****Credits:** 3

Second course on lathe setup, operation and practices. Topics covered include alignment, turning between centers, and other operations. The student will cut 60 degree external threads, internal threads, tapers, and other thread forms. Use of steady rests and follower rests.

**Prerequisite(s):** Completion of Machine Technology Level I Certificate or with consent of instructor, MFG\* H154 - Manufacturing Machining: Lathe I.**MFG\* H255 - Manufacturing Machinery - Milling II****Credits:** 3

Second course on milling setup, operation, and practices. Topics covered include use of Offset Boring Head, side milling cutters, face milling cutters on the horizontal mill, setup and operation of index heads, simple and direct angular indexing, and inspection of gears.

**Prerequisite(s):** Completion of Machine Technology Level I Certificate or with consent of instructor, MFG\* H155 - Manufacturing Machining - Milling I

### **MFG\* H256 Manufacturing Machinery - CNC II**

**Credits:** 3

Second course in Computer Numerical Controlled programming. A further study of CNC programming for the Lathe and Vertical Machining Center. Topics include setup and tooling, programming simple parts, canned drilling cycles, circular interpolation, special milling cycles, cutter compensation, looping and macros, and special features.

**Prerequisite(s):** Completion of Machine Technology Level I Certificate, or with consent of instructor, MFG\* H156 or MFG\* H178

### **MFG\* H271 - Advanced Lean Manufacturing**

**Credits:** 3

The purpose of this course is to provide the student with the knowledge to implement lean improvements within the production environment using a systematic approach. This course will follow an improvement project (from the student's current employer or case study) through the five stages of the DMAIC problem solving methodology. At the completion of the course, the student will be competent to effectively lead a lean implementation project within a company.

**Prerequisite(s):** MFG\* H171.

### **MFG\* H272 - Implementing Lean Supply Chain Management**

**Credits:** 3

The course covers the benefits and elements needed for implementing supply chain management. Team building and communication skills are shown as crucial factors in supply chain management. Topics emphasized in the course are measuring the velocity of the supply chain, developing partnerships, logistics, software tools, hardware, and continuous improvement. Class activities, group assignments and case studies are emphasized for real-world learning experiences.

**Prerequisite(s):** MFG\* H172.

### **MFG\* H275 - Mechanics of Materials**

**Credits:** 3

The study and explanation of the relationships existing between externally applied forces in resulting stresses in deformations. From our study of mechanics of material, we will be able to determine if a body is capable of fulfilling its intended purpose. Limited computer applications of beam theory and a computer demonstration of FEA.

**Prerequisite(s):** MEC\* H114, MAT\* H185.

**Lecture Hours:** 3

### **MFG\* H277 - Advanced Machine Technology**

**Credits:** 4

Second course in the use of the manual machines - lathes, milling machines, surface grinders, drill presses and saws. Topics include advanced use of tool holders, cutting tools and cutting variables, and creation of a machining process to select the correct machines and work-holding devices. As the course progresses, students will be expected to independently complete a machined part from blueprint to finished product with the applied tolerances to create assemblies of multiple components.

**Prerequisite(s):** C or better in MFG\* H177

## **Mathematics**

### **MAT\* H075 Pre-Algebra - Number Sense, Geometry**

**Credits:** 3

Material is chosen to provide the student with current mathematical concepts and topics needed to continue work in algebra, the mathematics of business, science and basic technology. Topics covered include computation with whole numbers, fractions, decimals, ratios, proportions, percents, and measures. Geometry topics are integrated throughout. Signed number computation, algebraic

expression, and equation solving appear regularly, thus familiarizing the students with algebraic concepts. Emphasis is on understanding of mathematical concepts and problem solving techniques. Instruction in calculator use is emphasized along with related applications.

**Corequisite(s):** This course is only offered as a co-requisite course with MAT\* H095 Introductory Algebra.

### **MAT\* H092 - Statway I**

**Credits:** 4

Statway I is the first of two courses offering an alternative pathway for students in non-STEM (Science, Technology, Engineering, Mathematics) majors. These courses will combine elements of algebra and statistics into one curriculum. Students will take these courses instead of MAT\* H095 - Elementary Algebra Foundations, MAT\* H137 - Intermediate Algebra, and MAT\* H167 - Principles of Statistics. The goal is to significantly improve the retention rate in developmental mathematics.

**Prerequisite(s):** Successful completion of EDUC 5016 (Transitional PreAlgebra) or an appropriate score on a college placement exam.

**Corequisite(s):** of ENG\* H063 or qualifying score on placement exam, or permission of Chair of Mathematics Department.

**Note:** Developmental - no credit toward degree or transfer

### **MAT\* H094 - Introductory Algebra**

**Credits:** 3-4

The course begins with a brief review of basic computational skills and operations with signed numbers. Algebraic order of operations and evaluation and simplification of algebraic expressions are followed by techniques for solving first degree equations and inequalities in one unknown. Also included in this course are algebraic methods for solving applications involving one and two unknowns. Basic rules of exponents are presented and scientific notation is discussed. This is followed by the basic polynomial operations and graphing linear equations in two unknowns, finding slopes of lines, x- and y- intercepts, and writing the equations of lines. This will not fulfill a mathematics requirement in any degree program.

**Prerequisite(s):** Successful completion of EDUC 5016 (Transitional PreAlgebra) or an appropriate score on a college placement exam.

### **MAT\* H095 - Elementary Algebra Foundations**

**Credits:** 3

The course begins with a brief review of basic computational skills and operations with signed numbers. Algebraic order of operations and evaluation and simplification of algebraic expressions are followed by techniques for solving first degree equations and inequalities in one unknown. Also included in this course are algebraic methods for solving applications involving one and two unknowns. Basic rules of exponents are presented and scientific notation is discussed. This is followed by the basic polynomial operations and graphing linear equations in two unknowns, finding slopes of lines, x- and y- intercepts, and writing the equations of lines.

**Prerequisite(s):** Successful completion of EDUC 5016 (Transitional PreAlgebra) or a "C-" in MAT\* H075) or an appropriate score on a college placement exam.

**Note:** This will not fulfill a mathematics requirement in any degree program.

### **MAT\* H121 Applications for Business and Other Careers**

**Credits:** 3

Topics covered include arithmetic and algebraic operations, statistics, graphs, and tables. This course emphasizes specific mathematical applications for each discipline.

**Prerequisite(s):** C or better in MAT\* H094 or MAT\* H095 or an appropriate score on a college placement exam. **Note:**

Enrollment in MAT\*H121 is restricted to specific programs.

### **MAT\* H122 - Statway II**

**Credits:** 4

Statway II is the second course in the two semester Statway course sequence. The Statway course sequence is recommended for students enrolled in degree programs that require no mathematics beyond freshmanlevel statistics. Both courses in the course sequence (Statway I and Statway II) may be used to receive credit for college level statistics with Division Leader approval. Students will use mathematical and statistical tools to explore real life data in a participatory learning environment. Statway II topics include modeling data with functions, quadratic functions, discrete and continuous probability distributions, Central Limit Theorem, sampling distributions,

confidence intervals, one-sample and two-sample hypothesis tests, Chi-Square Tests, and ANOVA. This course requires the use of statistical technology.

**Prerequisite(s):** C or better in MAT \*H092.

### **MAT\* H135 - Topics in Contemporary Mathematics**

**Credits:** 3

A practical course offering an exposure to a wide range of topics with an emphasis on critical thinking, problem solving and the real number system. Topics include number theory, financial management, set theory, metric system and statistics.

**Prerequisite(s):** C- or better in MAT\*H095 or an appropriate score on a college placement exam.

**Note:** This course will not satisfy the General Education mathematics requirement at CT State Universities.

### **MAT\* H136 - Intermediate Algebra with Lab**

**Credits:** 4

This course initiates with the concepts of beginning algebra such as solving first degree equations and inequalities, applications and graphing of linear equations, and simplifying exponential expressions. The course also includes concepts of intermediate algebra such as factoring techniques. The study of polynomial functions is extended via applications involving linear functions, linear systems, and quadratic functions. Students also study exponential functions, rational functions, radical functions, and absolute value functions.

**Prerequisite(s):** Grade of "C-" or better in AMP or MAT\*H095 or an appropriate score on a college placement exam. **Note:** This may be used as a general elective; this will not fulfill a mathematics requirement in any degree program.

### **MAT\* H137 - Intermediate Algebra**

**Credits:** 3

The main themes of Intermediate Algebra are functions, represented by tables, graphs, and rules, and problem solving. The study of polynomial functions is extended via applications involving linear functions, linear systems, and quadratic functions. Students also study exponential functions, rational functions, radical functions, and absolute value functions. Computer component required; TI-83 (Plus) or TI-84 (Plus) or online graphing utility required.

**Prerequisite(s):** B- or better in MAT\* H094 or C or better in MAT\* H095 or an appropriate score on a college placement exam. **Note:** This may be used as a general elective; this will not fulfill a mathematics requirement in any degree program.

### **MAT\* H143 - Math for Elementary Ed: Algebra, Number Systems**

**Credits:** 3

This course is designed for students planning to become certified in early childhood, elementary or middle school level education. Problem solving strategies will be developed and integrated throughout, in accordance with the NCTM *Principles and Standards for School Mathematics*. Topics include conceptual and relational understanding of the real numbers, including the subsets of whole numbers, integers, rational and irrational numbers, with an emphasis on place value and the associated operations. Topics from numeration systems, number theory, and set theory will be developed as needed, with regular use of manipulatives and technology.

**Prerequisite(s):** C or better in MAT\* H136 or MAT\* H137 or an appropriate score on a college placement exam.

### **MAT\* H144 - Math for Elementary Ed: Geometry, Data**

**Credits:** 3

This course is designed for students planning to become certified in early childhood, elementary or middle school level education. Problem solving strategies will be developed and integrated throughout, in accordance with the NCTM Principles and Standards for School Mathematics. Topics include probability, statistics, and geometry concepts presented through a problemsolving approach, and incorporating an extensive use of manipulatives and geometric software. Mathematical discourse is encouraged through cooperative learning and written communication.

**Prerequisite(s):** C or better in MAT\* H136 or MAT\* H137 or an appropriate score on a college placement exam.

### **MAT\* H146 - Math for the Liberal Arts**

**Credits: 3**

This is a survey course designed to acquaint the liberal arts student with a broad spectrum of mathematical ideas not emphasized in traditional algebra courses. As a terminal mathematics course, it conveys the nature and diversity of mathematics, its methods, applications, and roles in society. Topics are selected from problem solving and critical thinking skills, graph theory, voting and apportionment, introduction to probability, linear programming, patterns and symmetry, linear and exponential applications; others may include fractal geometry, financial management, fair division schemes, game theory, or codes.

**Prerequisite(s):** C or better in MAT\* H136 or MAT\* H137 or an appropriate score on a college placement exam.

**MAT\* H158 - Functions, Graphs, and Matrices****Credits: 3**

A course in select topics from contemporary math focused on applications in business, economics and finances. Topics include the concept of function and its rate of change, a review of algebraic and graphical aspects of polynomial functions, a study of exponential and logarithmic functions, mathematical modeling, and operations on systems of linear equations including matrix operations. A graphic calculator is used throughout the course.

**Prerequisite(s):** C or better in MAT\* H136 or MAT\* H137, or appropriate score on mathematics placement test.

**MAT\* H167 - Principles of Statistics****Credits: 3**

This technology-based course begins with an introduction to data analysis including techniques in the presentation of data and in the determination of statistical measures for central tendency and variation. The topics of linear correlation and regression are explored in the analysis of bivariate data. The basics of probability are presented prior to a thorough examination of discrete and continuous probability distributions. Emphasis is placed on the binomial and normal distributions. Estimation and hypothesis testing for population means are introduced. As time permits, statistical inference techniques for proportion, variance and the difference of means will be presented.

**Prerequisite(s):** C or better in MAT\* H136 or MAT\* H137 or an appropriate score on a college placement exam.

**MAT\* H170 - Math Education in Practice****Credits: 1**

This course provides students the opportunity to develop their communication skills in mathematics. Students will assist and tutor peers in mathematics using appropriate technology for a minimum of three hours per week for 14 weeks in the Academic Center for Excellence at Naugatuck Valley Community College under the supervision of a math instructor.

**Prerequisite(s):** B or better in MAT\* H172 with two letters of recommendation from instructors at NVCC and permission of the Division Dean or Math Department Chair.

**MAT\* H172 - College Algebra****Credits: 3**

This course offers the student the development of numeric, algebraic, and graphic problem solving techniques beyond the intermediate level. Techniques are developed to solve equations and inequalities involving polynomials, radicals and rational expressions. Polynomial, inverse, rational, exponential, and logarithmic functions are studied and their applications are explored both algebraically and graphically.

**Prerequisite(s):** C or better in MAT\* H136 or MAT\* H137 or an appropriate score on a college placement exam.

**MAT\* H185 - Trigonometric Functions****Credits: 3**

This course offers the student a development of trigonometry through a functional approach. The trigonometric functions are considered as circular functions with applications of these to the solution of triangulation problems. Topics include trigonometric identities, inverse trigonometric functions, oblique triangle trigonometry and the graphs of the trigonometric functions. Vectors will be introduced and the polar coordinate system will also be considered.

**Prerequisite(s):** C or better in MAT\* H172 or an appropriate score on a college placement exam.

**MAT\* H186 - Precalculus****Credits:** 4

This course offers students the development of numeric, algebraic, and graphic problem solving techniques beyond the intermediate level. Techniques are developed to solve equations and inequalities involving polynomials, radicals, rational expressions. Polynomial, inverse, rational, exponential, logarithmic, and trigonometric functions are studied and their applications are explored both algebraically and graphically. The trigonometric functions are considered as circular functions with applications of these to the solution of triangulation problems. Topics include trigonometric identities, inverse trigonometric functions, oblique triangle trigonometry, and vectors will be introduced.

**Prerequisite(s):** B+ or better in MAT\* H137, or C or better in MAT\* H172, or an appropriate score on college placement exam.

**MAT\* H210 - Discrete Math****Credits:** 3

This course is designed to introduce math and computer science majors to mathematical logic and methods of proof through their applications to set theory, combinatorics, and number theory.

**Prerequisite(s):** C or better in MAT\* H186 or MAT\* H185.

**MAT\* H221 - Intermediate Applied Statistics****Credits:** 4

In-depth study of statistics, probability, estimation, hypothesis testing for single and difference of means and proportions, simple linear and multiple regression, and Chi-Square tests of independence.

**Prerequisite(s):** C or better in MAT\* H167 or MAT\* H172 or higher.

**MAT\* H232 - Applied Calculus****Credits:** 3

The purpose of this course is to acquaint students not majoring in mathematics or science with a body of mathematical knowledge that may well demand investigation in view of their various academic goals. Topics covered include function theory, inequalities, tangent problems, continuity, limits, derivatives, and integrals.

**Prerequisite(s):** C or better in MAT\* H172 or an appropriate score on a college placement exam.

**MAT\* H254 - Calculus I****Credits:** 4

A four semester hour course intended to prepare students for advanced mathematics. The course begins with a review of precalculus. New topics include limits, continuity, the derivative, differentiation rules, geometric and physical applications of the derivative, the definite integral and its geometric meaning, antiderivatives and the indefinite integral, and basic integration rules.

**Prerequisite(s):** C or better in MAT\* H185 or MAT\* H186 or an appropriate score on a college placement exam.

**MAT\* H256 - Calculus II****Credits:** 4

A second course in calculus for mathematics or science majors. Topics include applications of the definite integral to areas and volumes, various techniques of integration, improper integrals, plane curves, parametric equations, polar coordinates, and infinite series.

**Prerequisite(s):** C or better in MAT\* H254

**MAT\* H268 - Calculus III: Multivariable****Credits:** 4

A course in multivariable calculus for mathematics or science majors. Topics include conic sections, vectors and solid analytic geometry, vector-valued functions, functions of several variables, partial differentiation, and multiple integration.

**Prerequisite(s):** C or better in MAT\* H256.

**MAT\* H285 - Differential Equations****Credits:** 3

Study of ordinary differential equations. Equations studied include the following: first-order linear, separable equations; exact equations; homogeneous linear equations of first or higher order with constant coefficients; auxiliary equations with complex roots; and non-homogeneous equations. Solutions of initial value problems with associated applications are studied. Techniques used include linear differential operators, the method of undetermined coefficients, variation of parameters, and Laplace transforms.

**Prerequisite(s):** C or better in MAT\* H256**Mechanical Engineering Technology****MEC\* H114 - Statics****Credits:** 3

Analysis of the forces which act upon particles and rigid bodies at rest. Balances of forces and moments on an object provide the basis for equilibrium calculations involving points, rigid bodies, trusses, frames and machines with a variety of supports, including frictional. The concepts of centroids, center of gravity and moment of inertia are also introduced.

**Prerequisite(s):** TCN\* H101, MAT\* H186 and PHY\* H121. **Lecture****Hours:** 3**MEC\* H238 - Dynamics****Credits:** 4

This course covers the fundamental techniques used for analyzing the motion of particles and rigid bodies and the forces which cause that motion. Translation and rotation as fundamental components of rectilinear, curvilinear and constrained plane motion are explained. Relative and absolute velocities and accelerations are treated with both graphical and computational techniques. Laboratory practice is used to verify and reinforce the theoretical concepts.

**Prerequisite(s):** MEC\* H114, MAT\* H254.**Lecture Hours:** 3**Lab Hours:** 2**MEC\* H240 - Fundamentals of Heat and Thermodynamics****Credits:** 4

This course covers the fundamental concepts of heat transfer and thermodynamics. Major topics in heat transfer include conduction, convection and radiation and their application to heat exchangers. Major topics in thermodynamics include the First and Second Laws of Thermodynamics and their application to vapor-power and refrigeration cycles. Laboratory experiments will supplement the theoretical class work.

**Prerequisite(s):** CHE\* H121 or permission of instructor.**Lecture Hours:** 3**Lab Hours:** 2**MEC\* H251 - Materials Strength****Credits:** 4

Covers the principles involved in the analysis of stresses which occur within machine and structural elements subjected to various types of loads. Analysis of these stresses are made as applied to thin-walled cylinders and spheres, beams, columns, couplings and shafts. Laboratory experiments supplement and reinforce theoretical class work.

**Prerequisite(s):** MEC\* H114.**Lecture Hours:** 3**Lab Hours:** 2**MEC\* H271 - Fluid Mechanics**

**Credits:** 4

An introductory survey of the principles and methods involved in the analysis of fluid systems. Included are common fluid properties, hydrostatics, the kinematics of fluid flow and energy relationships. Laminar and turbulent flow in piping systems are analyzed. Laboratory experiments supplement and reinforce theoretical class work.

**Corequisite(s):** MEC\* H114.

**Lecture Hours:** 3

**Lab Hours:** 2

**MEC\* H284 - Machine Design**

**Credits:** 4

Deals with the concept of mechanical design from concept to specifications. Covers the procedures, data, and techniques necessary to design/select mechanical components such as gears, springs, bearings, belt and chain drives, clutches, brakes, fasteners, shafts and screws. A design project is also included.

**Prerequisite(s):** CAD\* H150 and MEC\* H251, or permission of instructor.

**Lecture Hours:** 3 **Lab**

**Hours:** 2

**Medical Assisting****MED\* H125 - Medical Terminology**

**Credits:** 3

This course introduces students to the vocabulary of medicine. Terminology describing the anatomy and physiology of the systems of the human body will be covered, with attention given to the meaning and use of roots, prefixes, and suffixes. Also included are medical terms corresponding to diagnosis and description of human disease. Proper use of medical terms, including definition, spelling and pronunciation are stressed.

**Meteorology****MET\* H101 - Meteorology**

**Credits:** 3

An introductory course on weather and climate. Through lecture, internet access and other media, this course will cover atmospheric motion, severe weather, global and local climate, and forecasting.

**Music**

The Division of Liberal Arts and Behavioral/Social Sciences encourages students to register for music courses in order to develop appreciation of, and skills in, the musical arts. Some of the courses are required in career programs; others are designed for students' interests and personal development. Consultation with counselors will help determine specific needs.

**MUS\* H101 - Music History & Appreciation I**

**Credits:** 3

The course surveys historically significant music from the medieval period to the 20th century, emphasizing stylistic characteristics found in great music, art, and architecture.

**MUS\* H103 - American Music**

**Credits:** 3

This course surveys the history of American music from colonial times to the present day. Emphasis is placed on the ways in which the forms, genres, and styles of American popular and concert music engage with significant moments and trends in American social and cultural history.

### **MUS\* H104 - World Music**

**Credits:** 3

In World Music students study a variety of ethnic music from around the world. While the primary focus will be limited to certain selected regions and traditions, the overall scope will be broad in that these regions represent many different countries. Because students will be studying music within the context of the societies that create it, the approach to the course material is interdisciplinary, incorporating aspects of the arts, humanities, and social sciences.

### **MUS\* H111 - Fundamentals of Music I**

**Credits:** 3

This course begins the study of notation and forms that musicians use to arrange, compose and perform music. Topics include musical instruments, clefs, key signatures, time signatures, scales, musical styles and forms.

### **MUS\* H115 - Music Theory I**

**Credits:** 3

Music Theory I is a study of melodic writing leading to four-part diatonic harmony and should be taken concurrently with Ear Training I. Topics include four-part writing, non-chord tones, cadences, and seventh chords. Music analysis, reading, and aural skills are reinforced together with the Theoretical material presented.

### **MUS\* H116 - Music Theory II**

**Credits:** 3

This is a continuation of MUS\* H115 with a study of secondary functions, modulation, form and counterpoint and should be taken concurrently with Ear Training II. Music analysis, reading, and aural skills are developed together with the theoretical material presented.

**Prerequisite(s):** C or better in MUS\* H115 or permission of instructor.

### **MUS\* H126 - 20th Century/Modern Music**

**Credits:** 3

An historical survey of concert, symphonic and theater music of the 20th century. Styles such as Impressionism, Expressionism, Serialism, Neo-Classicism, Avant-garde, Musique Concrete, Minimalism, Jazz, and Rock will be explored.

**Lecture Hours:** 3

### **MUS\* H153 - Class Instruction - Beginning Piano I**

**Credits:** 1

This course offers an introduction to the basics of piano playing. Beginning students will learn basic music notation and work to develop piano technique and artistry. Intermediate students will continue work on technique and artistry and will be assigned other activities based on their entering level of piano skills.

### **MUS\* H156 - Guitar Ensemble**

**Credits:** 2

This is an opportunity for guitarists and bassists to experience reading and improvising in the context of a section, rather than the traditional rock or jazz band format. The goal is to raise sight reading levels while learning the art of ensemble playing. Special attention is paid to dynamics, phrasing, intonation, ensemble playing, and general musicianship.

### **MUS\* H158 - Chamber Music / Jazz Ensemble I**

**Credits:** 2

Students and community members will perform jazz and contemporary charts from the Big Band Era to Fusion Rock in a small instrumental group. Featured instruments include percussion, bass, keyboard, guitar, saxophone, trumpet, and trombone. The course is open to all students with the consent of the instructor.

### **MUS\* H161 - Chorale I**

**Credits:** 2

Performance of choral repertoire from all stylistic periods is studied. Performances occur at the College and in the community. The course is open to all students as well as members of the community, with the consent of the instructor.

### **MUS\* H162 - Chorale II**

**Credits:** 2

This course is devoted to more advanced study and performance of choral repertoire from all stylistic periods, and is meant to be taken after successful completion of Chorale I (MUS\* H161). Performances occur primarily at the College and in the community. The repertoire represents the work of both serious classical composers as well as contemporary popular composers. The course is open to all students with the consent of the instructor.

**Prerequisite(s):** Successful completion of MUS\* H161 or permission of instructor.

### **MUS\* H163 - Ear Training I**

**Credits:** 1

The goal of Ear Training I is to acquire the skills necessary to make intelligent and competent musicians. This course will focus on three major areas; sight singing, rhythmic reading, and dictation. This course is considered to be an aural lab component of Theory I and should be taken concurrently. It is an important course for those wishing to improve their pitch accuracy for the Chorus audition or Voice Lessons.

### **MUS\* H164 - Ear Training II**

**Credits:** 1

The goal of Ear Training II is to continue the work done in Ear Training I providing students with advanced training in pitch and rhythm, perception and sight reading. It is considered to be an aural lab component of Theory II and should be taken concurrently. It is an important course for those wishing to improve their pitch accuracy for Chorus or Voice lessons.

**Prerequisite(s):** MUS\* H163 or permission of instructor.

### **MUS\* H173 - Class Voice**

**Credits:** 1

Principles of voice placement and development, breathing, diction and production are practiced. Solo and duet repertoire are explored. This is designed as a beginner class for students with little or no experience.

### **MUS\* H183 - Applied Private Music Lessons I**

**Credits:** 1

Weekly private instruction in student's instrument/voice. Students will study performance techniques, advanced skills, and build repertoire. An end-of-term jury performance may be required at the discretion of the instructor.

**Note:** Students must complete twelve one-hour lessons.

### **MUS\* H184 - Applied Private Music Lessons II**

**Credits:** 2

Weekly private instruction in student's instrument/voice. Students will study performance techniques, advanced skills, and build repertoire. An end-of-term jury performance may be required at the discretion of the instructor.

**Note:** Students must complete twelve one-hour lessons.

### **MUS\* H213 - Music Theory III**

**Credits:** 3

Music Theory III provides training and supervised practice of analyzing, performing, and composing music. Music Theory III is a continuation of Music Theory II and should be taken concurrently with Ear Training III. Secondary chords, altered 6th chords, chromatic harmony, and modulation are mastered. Song writing is pursued as a means of understanding harmonic rhythm, progressions, accompaniment patterns, and small form structure. Keyboard proficiency is included.

**Prerequisite(s):** MUS\* H116 with a grade of "C" or better, or permission of instructor.

**MUS\* H214 - Music Theory IV****Credits:** 3

Music Theory IV provides training and supervised practice of analyzing, performing, and composing music. Music Theory IV is a continuation of Music Theory III and should be taken concurrently with Ear Training IV. Enharmonic modulation is introduced along with extended and chromatic harmony. Larger formal patterns are discussed (sonata form, rondo, and variation). 20th century harmony is introduced, including non-functional harmony, dodecaphony, and set theory. Keyboard proficiency is included.

**Prerequisite(s):** MUS\* H213 with a grade of "C" or better, or permission of instructor.

**MUS\* H218 - Electronic Music Composition/Audio Technology I****Credits:** 3

This course is an introduction to the history, art and science of electronic music and audio production. The history, elements, and tools of electronic music and audio will be defined and explored. Topics include: acoustic theory, analog and digital audio principles, recording techniques, sound sampling, electronic synthesis, MIDI, and audio for multimedia and web design.

**Prerequisite(s):** CSA\* H105 and permission of instructor.

**MUS\* H219 - Electronic Composition II****Credits:** 3

This course provides intermediate instruction in digital synthesis, digital sequencing software, and electronic composition methods. Students will complete a series of directed and independent compositional projects in a variety of styles. Topics include construction of timbres, additive and subtractive synthesis, digital sampling, signal processing, and algorithmic composition.

**Prerequisite(s):** MUS\*H218, DAT\*H218

**MUS\* H237 - Principles of Sound Recording****Credits:** 3

This course presents an in-depth study of the techniques and methodologies used in studio and live recording. In addition to classroom assignments and exercises, students will be expected to complete field work resulting in the recording, editing, and mastering of a live or studio project. Topics will include two-track and multi-track recording, studio acoustics and design, analog and digital mixing consoles, microphone placement techniques, signal processors, and studio session procedures.

**Prerequisite(s):** MUS\*H218 or DAT\*H218

**MUS\* H254 - Concert Band****Credits:** 2

This is a modern, symphonic concert band featuring woodwind, brass, and percussion instruments. The band performs for college functions (such as commencement) and for the benefit of the college. The band may perform at other off-campus venues and for non-campus organizations. The instructor selects repertoire each semester based on the available instruments and skill level of players, as well as picking repertoire suitable for college activities. The repertoire represents the work of both serious "classical" composers as well as contemporary popular composers. The course is open to all students with the consent of the instructor.

**MUS\* H263 - Ear Training III****Credits:** 1

Ear Training III provides classroom training and supervised practice of connecting musical sounds to musical notation and harmonic systems. Ear Training III is a continuation of Ear Training II and should be taken concurrently with Music Theory III. Intervals, scales, and chords in all inversions are sung and identified. Melodies for singing and dictation gradually incorporate chromatic alterations and modulation. Keyboard harmony is reinforced.

**Prerequisite(s):** C or better in MUS\* H164 or permission of instructor.

**MUS\* H264 - Ear Training IV****Credits:** 1

Ear Training IV provides classroom training and supervised practice of connecting musical sounds to musical notation and harmonic systems. Ear Training IV is a continuation of Ear Training III and should be taken concurrently with Music Theory IV. Sight singing, melodic dictation, keyboard harmony, and harmonic dictation incorporating chromaticism (secondary functions, mode mixture, N6, and augmented sixth chords), modulation to both closely and distantly related keys, and advanced rhythmic practices (syncopation, shifting meters, and hemiola).

**Prerequisite(s):** C or better in MUS\* H263 or permission of instructor.

### **MUS\* H274 - Conductor's Lab Ensemble**

**Credits:** 2

Learners are members of the College Choir. In addition to singing their particular voice part they also act as assistant conductors and are listed as such in concert programs. During the course of the semester assistant conductors utilize the baton and rehearsal techniques taught in the tutorials with the full choral group, either in the setting of a small group, voice section, or the entire chorus.

**Prerequisite(s):** MUS\* H115 - Music Theory I or permission of the instructor. The course must be taken concurrently with MUS\* H183 or MUS\* H184 - Applied Private Music Lessons II - Conducting.

## **Nursing**

### **NUR\* H101 - Introduction To Nursing Practice**

**Credits:** 8

The student will focus on concepts basic to nursing practice. Emphasis is placed on application of the nursing process, communication skills, and nursing practice procedure acquisition. Clinical and laboratory experiences offer opportunities to integrate theoretical principles and demonstrate caring and competence in beginning professional role development.

**Prerequisite(s):** Admission to the College and the Nursing Program.

### **NUR\* H102 - Family Health Nursing**

**Credits:** 8

The student will focus on issues affecting the family, including childbearing, childrearing, geriatric care and intermediate health care needs of limited duration. The medical surgical health problems include care for the client in the peri-operative period and the client experiencing orthopedic and simple genitourinary conditions. The course addresses several psychiatric disorders: anxiety and cognitive disorders, common child and adolescent psychiatric disorders. The student will have clinical rotations that provide experience caring for the childbearing family as well as caring for medical-surgical clients across the lifespan.

**Prerequisite(s):** NUR\* H101, PSY\* H111, BIO\* H235. **Corequisite(s):** NUR\* H103.

### **NUR\* H103 - Pharmacology for Families Across the Lifespan**

**Credits:** 1

The student will focus on the safe use, pharmacological principles, indications and nursing implications related to drug therapy when caring for individuals and families. Emphasis will be on medications used with perinatal, neonatal, pediatric, geriatric and peri-operative clients. The course will stress the general characteristics of selected medications and will include indications, pharmacokinetics, side effects, adverse effects, contraindications, administration, nursing implications across the lifespan, client education and relationship to prior learning.

**Prerequisite(s):** NUR\* H101

**Corequisite(s):** NUR\* H102.

### **NUR\* H120 - Nursing in Health Care I**

**Credits:** 9

This course provides an introduction to the art and science of nursing using concepts of nursing practice. Concepts related to the Nursing Profession, Health and Illness, Healthcare Systems and Patient Attributes are introduced and integrated throughout the course. Learning experiences in this course assist the student to integrate knowledge from pre-and co-requisite courses into the provision of patient-

centered care using the nursing process. Students apply learning related to pathophysiology, pharmacology, medical, and alternative therapies in classroom, laboratory and clinical settings throughout the course. Active learning strategies are employed in this course to introduce and develop critical thinking skills and self-directed lifelong learning.

**Prerequisite(s):** BIO\* H211, BIO\* H212, ENG\* H101. **Corequisite(s):** BIO\* H235, PSY\* H111.

### **NUR\* H125 - Nursing in Health & Illness II**

**Credits:** 8

This course builds upon concepts of nursing practice introduced in Nursing in Health & Illness I. Students apply learning related to pathophysiology, pharmacology, medical, and alternative therapies in classroom, laboratory and clinical settings throughout the course. The course integrates a holistic, family-centered approach to the nursing and inter-professional care of patients, families and groups across the lifespan. Emphasis is placed upon organizational skills of the nurse as a member of the interprofessional healthcare team. Learning experiences provide the student an opportunity to demonstrate critical thinking skills as course concepts are applied in the implementation of safe, patient-centered care in a variety of settings using the nursing process. Active learning strategies are employed to promote the continued development of critical thinking and self-directed lifelong learning.

**Prerequisite(s):** NUR\* H120, BIO\* H235, PSY\* H111. **Corequisite(s):** PSY\* H201, SOC\* H101.

### **NUR\* H126 - Transition to the CT-CCNP Concept-Based Curriculum**

**Credits:** 1

The CT-CCNP has implemented a curriculum revision that necessitates a transition process for students readmitted to the CTCCNP from the previous CT-CCNP curriculum from fall 2019 forward, at all sites. As part of the process, this course eases the transition to the new Concept-Based curriculum and positions students for success. Students in this course engage in independent and group learning activities designed to familiarize them with concept-based teaching and learning to support successful transition to the CBC. Students complete learning activities based upon their level of entry into the CBC.

### **NUR\* H130 - LPN to RN Transition I**

**Credits:** 1

This course is the final component of the Connecticut League for Nursing LPN to RN Articulation Plan for the Connecticut Community Colleges Nursing Program (CT-CCNP) which prepares LPNs to enter the CT-CCNP in the second year of study. Students enrolling in this course have been accepted for admission into the (CT-CCNP) and have chosen the option to enter the third semester.

**Prerequisite(s):** Charter Oak State College NUR 190: LPN to RN Articulation Bridge.

### **NUR\* H152 - Concept-Based Curriculum LPN to RN Transition**

**Credits:** 2

This course is the final component of the LPN to RN articulation plan for LPNs who are accepted into the CT-CCNP LPN to RN program option. During this course, students engage in learning activities to support a successful transition into the final year of the associate degree nursing program. Students are introduced to the concept-based learning environment and supporting course resources. Students are provided with the opportunity to practice critical thinking and demonstrate level competencies in the laboratory and/or clinical setting. Emphasis is placed on the assessment and clinical skills necessary to provide safe, patientcentered care as a member of the interprofessional healthcare team.

**Prerequisite(s):** BIO\*H211 & BIO\*H212; ENG\*H101; BIO\*H235; PSY\*H111; PSY\*H201; SOC\*H101; Charter Oak College NUR 190; LPN to RN Bridge Transition Course

### **NUR\* H201 - Nursing Care of Individuals and Families**

**Credits:** 9

The student will focus on holistic care of individuals and families across the lifespan with a variety of health care needs. The needs of clients experiencing endocrine, respiratory, gastrointestinal, cardiovascular conditions and selected mental health disorders are examined. Bioterrorism as a health care issue will be addressed. Clinical laboratory experience provides the student an opportunity to administer care to a diverse population of clients in a variety of acute care and community health care settings. The student will utilize critical

thinking, caring, professionalism and communication skills in the care of the client. Emphasis is placed on provision of safe and competent care and development of the professional role as a member of a multidisciplinary health care team. Over the semester, the student is increasingly challenged in the clinical area with more complex client assignments.

**Prerequisite(s):** NUR\* H102, NUR\* H103, PSY\* H201, SOC\* H101. **Corequisite(s):** NUR\* H202.

### **NUR\* H202 - Pharmacology for Individuals and Families with Intermediate Health Care Needs**

**Credits:** 1

The student will focus on pharmacologic principles related to the care of individuals and families across the lifespan with intermediate health care needs. Emphasis will be placed on medications used for clients who have endocrine, gastrointestinal, respiratory, cardiovascular, autoimmune, and psychiatric conditions and clients who are survivors of bioterrorism.

**Prerequisite(s):** NUR\* H102, NUR\* H103.

**Corequisite(s):** NUR\* H201.

### **NUR\* H203 - Nursing Care of Individuals and Families II**

**Credits:** 8

The student will focus on the holistic care of individuals, families, and groups with complex health care needs. The student will incorporate critical thinking, caring behaviors, professionalism, and communication skills when providing nursing care in a variety of acute, long-term and/or community settings. Students will have an opportunity to manage a multi client assignment with an emphasis on safe and competent practice. An observational experience with a visiting nurse agency, a dialysis unit and/or a cancer center will be provided.

**Prerequisite(s):** NUR\* H201, NUR\* H202, ENG\* H102. **Corequisite(s):** NUR\* H204, NUR\* H205.

### **NUR\* H204 - Pharmacology for Individuals, Families and Groups with Complex Health Care Needs**

**Credits:** 1

The student will focus on safe use, pharmacologic principles, indications and nursing implications related to drug therapy in the care of individuals, families, and groups with complex health care needs. Emphasis will be placed on medications used for clients who have acute and chronic renal failure, oncology and neurological conditions, and multi-system dysfunction and who choose an alternative therapy.

**Prerequisite(s):** NUR\* H201, NUR\* H202.

**Corequisite(s):** NUR\* H203.

### **NUR\* H205 - Nursing Management and Trends**

**Credits:** 2

The student will explore the basic principles of management, leadership and collaborative relationships as they relate to providing safe and competent care. The focus is on the utilization of critical thinking skills to make decisions on priority setting, delegation, legal parameters of nursing practice and ethical issues. Students will expand the concept of caring to the profession of nursing through collegial and interdisciplinary communication. This course facilitates the transition for students into the profession and their role in contemporary nursing practice.

**Prerequisite(s):** NUR\* H201, NUR\* H202. **Corequisite(s):** NUR\* H203, NUR\* H204.

### **NUR\* H220 - Nursing in Health & Illness III**

**Credits:** 9

This course is designed to further develop concepts of nursing practice introduced in Nursing, Health & Illness Concepts I & II. Students apply learning related to pathophysiology, pharmacology, medical, and alternative therapies in classroom, laboratory and clinical settings throughout the course. This course focuses on the nursing and inter-professional care of patients, families, groups and communities with a

variety of complex health care needs across the lifespan. Emphasis is placed upon management and coordination of care and the related organizational skills of the nurse as a member of the inter-professional healthcare team. Learning experiences provide the student an opportunity to demonstrate clinical reasoning as course concepts are applied in the implementation of safe, patient-centered care in a variety of settings using the nursing process. Active learning strategies are employed in this course to promote the development of clinical reasoning and self-directed lifelong learning.

**Prerequisite(s):** NUR\* H125, PSY\* H201, SOC\* H101.

**Corequisite(s):** ENG\* H102 or ENG\* H200 per college-specific requirement.

## **NUR\* H225 - Nursing in Health & Illness IV**

**Credits:** 8

This course is designed to further develop concepts of nursing practice introduced in Nursing in Health & Illness I, II & III. Students apply learning related to pathophysiology, pharmacology, medical, and alternative therapies in classroom, laboratory and clinical settings throughout the course. This course focuses upon the holistic nursing and inter-professional management and coordination of care for patients, families, groups and communities with a variety of complex health care needs across the lifespan. Emphasis is placed on the related organizational skills of the nurse as a member of the inter-professional healthcare team. Learning experiences provide the student an opportunity to demonstrate clinical judgment as course concepts are applied in the implementation of safe, patient-centered care in a variety of settings using the nursing process. In addition, a portion of clinical experiences within this course provide the student with the opportunity to demonstrate knowledge skills and attitudes (KSAs) that reflect awareness of the leadership and management roles of the nurse as a member of the inter-professional healthcare team. Active learning strategies are employed in this course to promote the development of clinical reasoning and self-directed lifelong learning.

**Prerequisite(s):** NUR\* H220, ENG\* H102 or ENG\* H200 per college-specific requirement. **Corequisite(s):** NUR\* H226, NVCC Oral Communications Competency course.

## **NUR\* H226 - Transition to Professional Nursing Practice**

**Credits:** 1

This course focuses on advanced concepts of nursing practice as they relate to leadership, management and inter-professional relationships at all levels of patient care. This course explores the curricular concepts communication, diversity, evidence based practice, healthcare policy and economics, leadership, patient centered care, professionalism, quality improvement, safety, systems-based practice, and teamwork and collaboration in greater depth. Emphasis is placed upon clinical judgment as it impacts clinical decision making and priority setting in a variety of settings within the healthcare system. Learning experiences assist the student to synthesize concepts in a manner that promotes quality improvement in clinical nursing practice for the benefit of patients, families, groups, communities, and populations across the lifespan. Active learning strategies are employed in this course to engage students in the development and application of nursing leadership and management skills as self-directed lifelong learners.

**Prerequisite(s):** NUR\* H220, ENG\* H102 or ENG\* H200.

**Corequisite(s):** NUR\* H225, NVCC Oral Communication Competency course.

## **Philosophy**

### **PHL\* H101 - Introduction to Philosophy**

**Credits:** 3

Philosophy 101 surveys several major areas within the discipline, which may include aesthetics, ethics, free will, government, knowledge, logic, meaning of life, mind, reality, religion, and science. Philosophy has as its fundamental mission the cultivation of skills and world views that contribute to student development as autonomous persons and engaged members of society. These skills and dispositions are acquired through studying and doing philosophy. These skills facilitate a student's development by encouraging the critical, systematic, and philosophically informed examination of beliefs, values, and conceptions of existence. Such an individual has an independent, flexible, and open mind capable of making well-reasoned decisions.

**Prerequisite(s):** C or better in ENG\* H101.

### **PHL\* H111 - Ethics**

**Credits:** 3

This course studies the approaches to ethics, ethical language, and interpretations of "Who am I?" and "What am I to do?" Morality as it relates to freedom, religion, medicine, business, mass media, technology, Environment and personal commitment are among the topics covered. Using logical reasoning, students demonstrate an understanding of ethical behavior in both oral and written form.

**Prerequisite(s):** ENG\* H101.

### **PHL\* H112 - Medical Ethics**

**Credits:** 3

This course is an introduction to moral issues and options in medicine, with particular attention to those most directly affecting the public and general medical personnel. Topics include the meaning of "life," birth control, artificial insemination, genetic engineering, abortion, human experimentation, behavior control, organ transplantation, truth and the physician, care of the dying, and public health care.

**Prerequisite(s):** ENG\* H101.

### **PHL\* H150 - Philosophy of Religion**

**Credits:** 3

The nature of religion, the reality and existence of God, religious knowledge and values, the soul, life after death, the problem of evil, mysticism, miracles, and the relationship of religion to science and history are explored.

**Prerequisite(s):** ENG\* H101.

### **PHL\* H151 - World Religions**

**Credits:** 3

This course studies various living Eastern and Western religions and their beliefs about the meaning of life, God, reality, truth, morality and worship.

**Prerequisite(s):** ENG\* H101.

## **Physical Education**

The Physical Education and Health Fitness courses at Naugatuck Valley Community College are designed to meet the life-time needs of the individual as teacher and person. Courses develop the basic skills and methodologies required for good physical and mental health. Courses have been recognized for transfer credit by four-year institutions. Activity course descriptions appear at the end of this section.

### **HPE\* H101 - Weight Control and Exercise**

**Credits:** 2

Designed to help students realize the importance of healthy diet and exercise behaviors in permanent weight control. Behavior modification techniques are used to help students achieve a healthy lifestyle that will result in either a gradual reduction in body weight, and/or the maintenance of a healthy body weight.

### **HPE\* H117 - Weight Training**

**Credits:** 2

Emphasis of this course is on the development of a high degree of individual skills and methods necessary to understand the body mechanics involved in activity exercise. Programs discussed will include training for leisure sports, rehabilitation, muscular tone, endurance, cardiovascular endurance, flexibility, and weight loss.

### **HPE\* H140 - Pilates/Wellness**

**Credits:** 1

This course focuses on the quality of movement, posture and breathing by increasing strength, flexibility, and balance. The holistic perspective includes physical awareness, cognitive reflection, and insights from feelings and focuses on mind-body centering. Pilates/Wellness is designed for the dancer, athlete, health professional or persons interested in overall well-being. This class meets the first ten weeks of the semester. Comfortable clothing is necessary.

## **HPE\* H147 Self-Defense I**

1

This course is designed to promote the methods and skills to understand and perform the art of karate for self-defense and discipline. It includes the study of history, philosophy and culture of the martial art of karate.

## **HPE\* H148 - Self-Defense II**

**Credits:** 1

This course is advanced study in the art and methods of self-defense including elements of physical fitness. Students who enroll in this course will be given a promotion test for belt certification.

**Prerequisite(s):** HPE\* H147.

## **HPE\* H261 - Yoga**

**Credits:** 1

This course is designed to introduce students to the methods and skills necessary to understand and perform Yoga. Relaxation techniques and flexibility training are stressed.

## **HPE\* H264 - Yoga**

**Credits:** 2

This course is designed to introduce students to the methods and skills necessary to understand and perform Yoga. Relaxation techniques and flexibility training are stressed.

# **Physical Therapist Assistant**

## **PTA\* H120 - Introduction to Physical Therapy**

**Credits:** 3

Learning opportunities in this course assist the student to recognize the roles of physical therapy within various practice settings. Students differentiate functions of physical therapists and physical therapist assistants as members of the health care team through study of the history of physical therapy, documentation, ethical & legal principles, evidence based practice, and medical terminology important to the provision of services. Learning also includes development of knowledge and abilities within the domains of professional conduct, interpersonal and professional communication, and sensitivity to individual and cultural differences.

**Prerequisite(s):** Admission to the PTA Program and PTA\* H125.

## **PTA\* H125 - PT for Function**

**Credits:** 4

This lecture and lab based course, provides the student with introductory concepts and techniques regarding physical therapy interventions for function and mobility. Emphasis is placed on enhancing the students' problem-solving abilities and comprehension of the physical therapist assistant's role. The importance of modification of physical therapy interventions within the plan of care developed by the supervising physical therapist is highlighted. The laboratory section of this course allows the student to develop the psychomotor skills through simulated patient scenarios.

**Prerequisite(s):** Admission to the PTA Program and PTA\* H120.

## **PTA\* H130 - Clinical Anatomy and Kinesiology**

3

This course is designed to enable students to identify the structure and function of the human body including the spine, upper and lower extremities through computer simulation and application. The course includes the study of skeletal and muscular structures involved in human movement. Students will understand movement control and elements of movement dysfunction. The student will also gain an understanding of biomechanical forces, neuromuscular control, and pathological influences through analysis of biomechanical forces on the body.

**Prerequisite(s):** BIO\* H211.

**PTA\* H145 - Physical Agents in PT****Credits:** 3

This hybrid course develops the student's competence with problem-solving and application of physical therapy interventions using physical agents, including therapeutic applications of heat, cold, water, electricity, light, and mechanical forces or devices. The student will be exposed to online lecture-based facilitation and laboratory experiences regarding therapeutic application of physical agents that will include: scientific theory; common pathologies that would reflect best practice usage of physical agent interventions; indications, contraindications and precautions to use; patient simulations and case scenarios to allow for problem solving and discussion; expected patient outcomes from the use of physical agents; patient education and communication; appropriate documentation for provided physical agent interventions.

**Prerequisite(s):** PTA\* H120, PTA\* H125 and PTA\* H130 with a grade of "C" or higher. **Corequisite(s):** PTA\* H150 and PTA\* H155.

**PTA\* H150 - PT Interventions I****Credits:** 4

This course uses a case study approach to enhance problem solving skills and provide integration of various patient examination, goal setting, and intervention techniques within the scope of physical therapist assistant practice. Topics covered include foundational PT skills of goniometric and muscle strength assessment and exercise prescription. The student will achieve competency in the following patient care techniques: data collection skills, exercise prescription, communication and documentation skills including appropriate billing, and patient safety. Manual muscle testing and goniometric measurement of joint range of motion will be incorporated into laboratory exercises. Professionalism, verbal and written communication skills, and ethics are considered throughout.

**Prerequisite(s):** PTA\* H120, PTA\* H125 and PTA\* H130 with a grade of "C" or higher. **Corequisite(s):** PTA\* H145 and PTA\* H155.

**PTA\* H155 - Pathology for the PTA I****Credits:** 3

This is the first course of a two-course pathology sequence designed to provide the physical therapist assistant student with the knowledge of human pathology of selected body systems including implications for patient management. Topics covered include inflammation, lab tests & values, and the immune, lymphatic, cardiovascular, respiratory, integumentary and musculoskeletal systems. This is a foundational course as it promotes an understanding of the disease processes, and it guides the student in application and analysis of medical pathology in patient care. Emphasis is placed on the relationship of medical presentation signs/symptoms and its implication on physical therapy treatment.

**Prerequisite(s):** PTA\* H120, PTA\* H125, PTA\* H130 with a grade of "C" or higher. **Corequisite(s):** PTA\* H145, PTA\* H150.

**PTA\* H251 PT Interventions II**

3

This course uses a case study approach to enhance problem solving skills and provide integration of various patient intervention techniques within the scope of physical therapy practice. Topics covered include interventions for special populations such as status post amputation, pre/post-partum, neurological diagnoses, and pediatric conditions. The student will achieve competency in the following patient care techniques: specialized exercise prescription, prosthetic & orthotic management, and normal and abnormal reflex identification. Patient education, appropriate billing, patient safety, professionalism, verbal and written communication skills, and ethics are considered throughout.

**Prerequisite(s):** PTA\* H145, PTA\* H150, PTA\* H155; **Corequisite(s):** PTA\* H255, PTA\* H258.

**PTA\* H255 - Pathology for the PTA II****Credits:** 3

This is the second course of a two-course pathology sequence designed to provide the physical therapist assistant student with the knowledge of human pathology of selected body systems including implications for patient management. Topics covered include disorders of the nervous system, the hepatic, pancreatic and biliary systems, the endocrine and gastrointestinal systems, the male and female reproductive systems, as well as amputation, oncology, and hematology. This is a foundational course as it promotes an

understanding of the disease processes, and it guides the student in application and analysis of medical pathology in patient care. Emphasis is placed on the relationship of medical presentation signs/symptoms and its implication on physical therapy treatment.

**Prerequisite(s):** PTA\* H145, PTA\* H150, PTA\* H155; **Corequisite(s):** PTA\* H251, PTA\* H258.

### **PTA\* H258 - PTA in the Healthcare Arena**

**Credits:** 2

This course develops the student's ability to apply physical therapy interventions and data collection techniques within the PT's plan of care in the clinic environment and advances the student's abilities with communication, professional conduct, and problem solving within the physical therapy clinic. PTA in the Healthcare Arena uses the clinical environment as a framework for the application and synthesis of conceptual aspects of the work environment. Clinical education experiences are acquired in a weekly part-time integrated clinical experience and integrated into the classroom to illustrate the current health care delivery system's impact on the field of physical therapy and the role of the physical therapist assistant. Throughout the semester students will learn to differentiate professional, legal, and ethical standards and analyze how these direct the delivery of patient care.

**Prerequisite(s):** PTA\* H145, PTA\* H150, PTA\* H155 with a grade of "C" or higher **Corequisite(s):** PTA\* H251, PTA\* H255.

### **PTA\* H260 - Physical Therapy Seminar**

**Credits:** 2

In this course students demonstrate the ability to apply critical thinking to selected professional issues, industry trends, and special populations that may be encountered as a physical therapist assistant. Learning opportunities assist in the transition from student to clinician and identification of interest areas for lifelong learning.

**Prerequisite(s):** PTA\* H251, PTA\* H255 and PTA\* H258 with a grade of "C" or higher. **Corequisite(s):** PTA\* H262 and PTA\* H265.

### **PTA\* H262 - PTA Internship II**

5

Within this clinic-based course students learn to integrate and apply physical therapy concepts to effectively perform physical therapy interventions as a physical therapist assistant under the direction and supervision of a physical therapist. Students develop their abilities for daily organization and management of a patient caseload and effectively contribute to the health care team. Students practice professional behaviors in all interactions with patients, families, caregivers, instructors, facility staff, other health care providers, vendors, insurance carriers and administrators.

**Prerequisite(s):** PTA\*H250, 253 and PTA\* H258 with a grade of C or higher. **Note:** This course takes place during the first half of the semester.

### **PTA\* H265 - PTA Internship III**

**Credits:** 5

Within this clinic-based course students learn to integrate and apply physical therapy concepts to effectively perform physical therapy interventions as a physical therapist assistant under the direction and supervision of a physical therapist. Students practice professional behaviors in all interactions with patients, families, caregivers, instructors, facility staff, other health care providers, vendors insurance carriers and administrators. Students further develop autonomy and competence with daily organization, time management, clinical prioritization, and the entry - level abilities of the physical therapist assistant prior to course completion.

**Prerequisite(s):** PTA\*H250, PTA\*H253 and PTA\* H258 with a grade of "C" or higher. **Note:** This course takes place during the second half of the semester.

## **Physics**

### **PHY\* H110 - Introductory Physics**

**Credits:** 4

The course is designed for the student seeking basic introduction to the principles of physics, and offers firsthand experience on learning in a laboratory. Specific topics covered include: a review of essential arithmetic operations and systems of measurements, linear motion, conservation of energy and linear momentum, Newton's three laws of motion, gas laws, heat, light, electricity, magnetism and atomic theory, as time permits.

**Prerequisite(s):** MAT\* H095 or equivalent. MAT\* H137 is recommended.

**Lecture Hours:** 3

**Lab Hours:** 3

### **PHY\* H121 - General Physics I**

**Credits:** 4

This course is designed for students in technical fields and pre-medicine programs. The course begins with a review of algebra, basic trigonometry and vectors. Topics covered include kinematics, projectile motion, Newton's Laws, energy, momentum, rotational dynamics, heat and thermodynamics, as time allows.

**Prerequisite(s):** MAT\* H137 or equivalent.

**Corequisite(s):** MAT\* H172.

**Lecture Hours:** 3

**Lab Hours:** 3

### **PHY\* H122 General Physics II**

4

This course is a continuation of PHY\* H121. An overview of thermodynamics is given. Topics include waves, harmonic motion and Coulomb's Law. The laws describing electric and magnetic fields are studied and how these laws apply to DC and AC circuits, and the properties of light are presented. The properties of light discussed include reflection, refraction, interference and diffraction.

**Prerequisite(s):** PHY\* H121.

**Lecture Hours:** 3

**Lab Hours:** 3

### **PHY\* H221 - Calculus-Based Physics I**

**Credits:** 4

This course is designed for students in technical fields, mathematics, or the physical sciences. Topics covered: Overview of the calculus necessary for physics, kinematics, Newton's laws, conservation laws, rotational dynamics, harmonic motion, gravitation, fluid mechanics, waves, sound, heat and thermodynamics. The lab portion of the course will concentrate on gathering data, analysis of data, and the discussion of results. The topics covered in lab will be coincident with the topics covered in the course.

**Prerequisite(s):** MAT\* H254 or equivalent.

**Lecture Hours:** 3

**Lab Hours:** 3

### **PHY\* H222 - Calculus-Based Physics II**

**Credits:** 4

This course is designed for students in technical fields, mathematics, or the physical sciences. Topics covered: Overview of the calculus necessary for physics, heat, kinetic theory of gasses and thermodynamics (if not covered in PHY\* H221). Electrostatics, magnetostatics, circuits (DC and AC), electrodynamics, waves and optics. The lab portion of the course will concentrate on gathering data, analysis of data, and the discussion of results. The topics covered in lab will be coincident with the topics covered in the course.

**Prerequisite(s):** PHY\* H221 or equivalent.

**Lecture Hours:** 3 **Lab**

**Hours:** 3

## Political Science

### **POL\* H102 - Introduction to Comparative Politics**

**Credits:** 3

A survey of the structure and functioning of the governments is presented. Such contemporary nation states as Russia, Great Britain, France, and Germany are analyzed. A brief history of each government is included.

**Prerequisite(s):** 3 credit hours in any history or political science course.

### **POL\* H103 - Introduction to International Relations**

**Credits:** 3

This course is an introduction to the present nation state system with an analysis of the political, social and economic pressures that produce international tensions and crises. Consideration of the traditional balance of power approach to world peace will be contrasted to the regional and global organizations that have appeared since World War II.

### **POL\* H111 American Government**

**Credits:** 3

Students are acquainted with the organization, structure, and functions of the American national government and of the American political parties. Attention is paid to the Constitution, the congress, the courts and the presidency and administration.

### **POL\* H112 - State and Local Government**

**Credits:** 3

The structure and functions of the various state and local governments in the United States are studied. Special emphasis is placed on the state government in Connecticut and on the various types of local government in the state.

### **POL\* H291 - Practicum in Government I**

**Credits:** 6

Practical experience as a staff assistant to a member or committee of the Connecticut General Assembly or to a municipal government executive or agency is provided. At least 200 hours of practical work plus a biweekly seminar meeting of all student interns of NVCC are required. A 10-15 page term paper report will also be required at the end of the semester.

**Prerequisite(s):** At least 15 credit hours of college work and a 2.6 average, plus a "B" grade in either ENG\* H101 or BBG\* H210.

### **POL\* H292 - Practicum in Government II**

**Credits:** 6

Practical experience as a staff assistant to a member or committee of the Connecticut General Assembly or to a municipal government executive or agency is provided. At least 200 hours of practical work plus a biweekly seminar meeting of all student interns of NVCC are required. A 10-15 page term paper report will also be required at the end of the semester.

**Prerequisite(s):** At least 15 credit hours of college work and a 2.6 average, plus a "B" grade in either ENG\* H101 or BBG\* H210.

## Psychology

### **PSY\* H111 - General Psychology I**

**Credits:** 3

A general study of psychology in which the important basic principles of scientific methodology, theories of psychology, biological foundations of behavior, human development, states of consciousness, learning, memory, intelligence, and social psychology are presented.

**Prerequisite(s):** Eligibility for ENG\* H101.

### **PSY\* H201 - Lifespan Development**

**Credits:** 3

A study of the changes in the individual from infancy through late adulthood will be examined. Methodology and the physical, cognitive, and social development of the individual will be studied.

**Prerequisite(s):** PSY\* H111.

### **PSY\* H203 Child Development**

**Credits:** 3

This course examines the changes that occur in the individual from birth to the beginning of adolescence. Physical, cognitive, and social changes will be studied in the context of sociocultural and other environmental influences that shape individual development.

**Prerequisite(s):** PSY\* H111.

### **PSY\* H204 - Child & Adolescent Development**

**Credits:** 3

A study of the changes in the individual from infancy through adolescence will be examined. Methodology and the physical, cognitive, and social development of the individual will be studied.

**Prerequisite(s):** PSY\* H111.

### **PSY\* H206 - Adolescence & Adulthood Development**

**Credits:** 3

This is a continuation of PSY\* H204 with the emphasis on the period from adolescence through aging. Effective and intellectual functions from both the physiological and environmental view are examined.

**Prerequisite(s):** PSY\* H111.

### **PSY\* H217 - Psychology of Criminal Behavior**

**Credits:** 3

This course presents a study of the psychological aspects and correlates of criminal behavior. Models are presented for predicting, understanding, and responding to criminal behavior.

**Prerequisite(s):** PSY\* H111.

### **PSY\* H240 - Social Psychology**

**Credits:** 3

Dynamics of individual motivation in social situations, the theoretical bases for social behavior, applications of principles of behavior to attitude change, prejudice, public opinion, and individual reactions in mass behavior are examined.

**Prerequisite(s):** PSY\* H111.

### **PSY\* H243 - Theories of Personality**

**Credits:** 3

This course presents a study of the underlying causes of individual behavior and experience. A wide range of theories is considered, including those from the psychoanalytic perspective, the trait perspective, the learning perspective and the humanistic perspective.

**Prerequisite(s):** PSY\* H111.

### **PSY\* H245 Abnormal Psychology**

**Credits:** 3

The varieties of abnormal behavior found in man are studied. Such disorders as depression, anxiety disorders, psychotic conditions, alcoholism, drug addiction, the personality disorders, and sexual deviations are considered.

**Prerequisite(s):** PSY\* H111.

## **PSY\* H247 - Industrial & Organizational Psychology**

**Credits:** 3

This course surveys the scientific methodology of work behavior as applied to selection, training, evaluation, and organizational factors such as leadership, communication, social environment, group dynamics and norms, stress, motivation, job design and satisfaction, supervision, conflict resolution, and technological change.

**Prerequisite(s):** PSY\* H111.

## **PSY\* H258 - Behavior Modification**

**Credits:** 3

A study of learning theories in which operant and classical conditioning are presented. The focus is on the use of the concepts and principles of applied behavior analysis in teaching functional skills and decreasing maladaptive behaviors in such situations as the home, school, group homes, and mental health settings. Research methods, history, and ethical issues of behavior modification are also reviewed.

**Prerequisite(s):** PSY\* H111.

## **PSY\* H260 - Psychology of the Exceptional Child**

**Credits:** 3

The psychology of children with disabilities including mental retardation, learning disabled, physically challenged, autism, communication, health disabilities, and emotional/ behavioral disorders is presented.

**Prerequisite(s):** PSY\* H111.

## **PSY\* H262 - Applied Behavior Analysis**

**Credits:** 3

This course covers the purpose, rationale and methods used in conducting and interpreting functional analyses of challenging; advanced coverage of measurement methods used in behavioral intervention, and the application of specific behavioral teaching procedures, including prompting, reinforcement, shaping, chaining, error correction and generalization methods, and the development of behavior plans.

**Prerequisite(s):** PSY\* H258 or permission of the instructor.

## **Quality Assurance**

### **QUA\* H114 - Principles of Quality Control**

**Credits:** 3

This first course in statistical quality control provides an overview of the tools and techniques required in contemporary quality systems. Topics covered include determination of process capabilities, estimation of process standard deviation from sample data, use of control charts, and calculation of probability of simple events. Students will develop SPC and TQM Manufacturing plans.

## **Radiologic Technology**

### **RAD\* H112 - Orientation to Radiology**

**Credits:** 3

This course provides an orientation to radiology, basic radiation protection, ethics, medical terminology, communication, and patient care.

**Prerequisite(s):** Admission into the program.

### **RAD\* H113 - Rad. Physics / Radiographic Quality I**

**Credits:** 3

The course content includes the production of x-rays, the x-ray circuit, radiographic equipment, and the interaction of x-rays with matter. Once learned, the student will utilize the preceding content, applying it to how the x-ray produces the image. The subject material includes introductory principles of radiographic quality, a general overview of radiographic film, intensifying screens, film processing, setting technical factors, and performing technical conversions.

**Prerequisite(s):** RAD\* H112 and RAD\* H197.

### **RAD\* H114 - Contrast Media Procedures & Radiographic Quality II**

**Credits:** 3

The course content is divided between two main topics. The first half of the summer session will cover radiologic procedures involving the use of contrast media. Also discussed will be the hazards, complications, and risk factors of contrast media. The second half of the session is a continuation of Radiographic Quality I. Topics include image formation, technical conversions and critiquing the radiograph.

**Prerequisite(s):** RAD\* H113 and RAD\* H198.

### **RAD\* H198L - Procedures Lab I**

**Credits:** 1

This procedural lab I will provide students with simulated learning experiences to develop clinical practice skills that are utilized in actual clinical environments. Students will be able to demonstrate positioning of the cervical spine, thoracic spine, lumbar spine, SI joints, sternoclavicular articulations, ribs, sternum, and trauma radiography.

**Prerequisite(s):** RAD\* H112, RAD\* H197

**Corequisite(s):** RAD\* H198

### **RAD\* H200 - Radiologic Physics & Diagnostic Imaging Modalities**

**Credits:** 3

This course provides the student with advanced study of fluoroscopy, physics, computed radiography, digital radiography, digital fluoroscopy, and quality assurance/quality control techniques used to evaluate radiographic imaging equipment

**Prerequisite(s):** RAD\* H114 and RAD\* H199

### **RAD\* H215 - Radiographic Pathology**

**Credits:** 3

This course provides an overview of pathological conditions that are demonstrated with diagnostic imaging. Lecture material will include the cause and treatment of the disease. Pediatric radiology is also presented.

**Prerequisite(s):** RAD\* H200, RAD\* H222, and RAD\* H297

### **RAD\* H222 - Radiobiology & Protection**

**Credits:** 3

Topics include Radiobiology, health physics, radiation safety, safety requirements for equipment, and protection.

**Prerequisite(s):** RAD\* H114 and RAD\* H199

### **RAD\* H297L - Procedures Lab II**

**Credits:** 1

This procedural lab II will provide students with simulated learning experiences to develop clinical practice skills that are utilized in actual environments. Students will practice positioning of the skull/cranium, sinuses and facial bones.

**Prerequisite(s):** RAD\* H199. **Corequisite(s):** RAD\* H297.

## Radiologic Technology Clinical Courses

Practicum (clinical practice) in the Radiologic Technology Program involve a series of learning experiences and developed skills in hospitals, offices and imaging centers. *Students are periodically assigned to all sections within the department. (These experiences are offered in RAD\* H197 through RAD\*H299 in sequence.)*

### **RAD\* H197 - Clinical Practice I**

**Credits:** 2

Clinical Post conference focuses on orientation to radiology, positioning of chest, abdomen, and extremities.

### **RAD\* H198 - Clinical Practice II**

**Credits:** 2

Clinical Post conference focuses on positioning of the pelvic girdle, hip, vertebral column & trauma radiography.

### **RAD\* H199 - Clinical Practice III**

**Credits:** 2

Focus on Contrast Media studies and Fluoroscopic exams.

### **RAD\* H297 - Clinical Practice IV**

**Credits:** 3

Clinical Post conference focuses on positioning of skull and cross sectional anatomy.

### **RAD\* H298 - Clinical Practice V**

**Credits:** 3

Clinical Post conference focuses on cross sectional anatomy, CT & MRI physics and Pathology.

## Research

### **RES H211 - Mentored Research Project I**

**Credits:** 3

Mentored Research Project I engages students in the development of a research proposal for hypothesis-driven research in their chosen discipline. Over the course of the semester the student will use existing peer reviewed literature to develop a research question, hypothesis, and a data collection plan, including the development of questionnaires or other tools for data collection. Students are encouraged to enroll in RES H212 (Mentored Research Project II) during the subsequent semester. In that course they will collect and analyze the data for this project.

**Prerequisite(s):** Permission of the instructor.

### **RES H212 - Mentored Research Project II**

**Credits:** 3

Mentored Research Project II engages students in data collection, analysis, and presentation of hypothesis driven research on a topic in their chosen discipline. The student will use a previously established research plan to complete a project culminating in a written paper and poster presentation. The previous work will usually be completed in Mentored Research Project I (RES H211) but enrollment will be considered for students who have completed that phase in a different course or under the mentorship of a faculty member without a formal course.

**Prerequisite(s):** C or better in RES H211 or permission of the instructor.

## Respiratory Care

### **RSP\* H112 - Fundamentals of Respiratory Care**

**Credits:** 4

This course introduces students to fundamental principles and practice of respiratory care. Topics covered include principles of infection control, medical gas therapy, applications of gas laws, aerosol and humidity therapy, basic patient assessment, patient safety, and documentation. This course integrates theory and laboratory practice.

**Prerequisite(s):** Admission to the Program. **Corequisite(s):** RSP\* H121.

### **RSP\* H121 - Cardiopulmonary Anatomy and Physiology**

**Credits:** 3

This course includes an in-depth study of the structure and function of the pulmonary and cardiac system. Topics include the circulatory system, applied physiology and physical principles of the respiratory system, gas exchange, and medical terminology.

**Prerequisite(s):** Admission to the Program. **Corequisite(s):** RSP\* H112.

### **RSP\* H131 - Applied Pharmacology**

**Credits:** 3

General principles of respiratory care pharmacology will be covered including the process of drug approval in the United States, principles of drug action, administration of aerosolized agents, calculating drug dosages and a review of the autonomic nervous system. Smoking cessation pharmacotherapy is also covered in this course.

**Prerequisite(s):** RSP\* H112, RSP\* H121 with grades of "C" or better. **Corequisite(s):** RSP\* H141.

### **RSP\* H141 - Principles of Respiratory Care**

**Credits:** 4

This course builds on the concepts introduced in RSP\* H112. Topics presented include medical terminology, patient assessment, airway clearance, lung inflation therapy, airway management, non-invasive ventilation, cultural competence, ethics and professionalism, and medical documentation and communication. This course integrates theory and laboratory practice.

**Prerequisite(s):** RSP\* H112, RSP\* H121 with grades of C or better. **Corequisite(s):** RSP\* H180 and RSP\* H131.

### **RSP\* H151 - Cardiopulmonary Pathophysiology and Diagnostics**

**Credits:** 3

The course material covers etiology, clinical manifestations, diagnostic testing, and treatment of diseases affecting the cardiopulmonary system. Students are expected to integrate previous knowledge of cardiopulmonary anatomy and physiology into the course content. Students will evaluate case-studies and recommend procedures to gather additional clinical data. Critical thinking and decision making will be stressed in this course.

**Prerequisite(s):** RSP\* H131, RSP\* H141 with grades of "C" or better. **Corequisite(s):** RSP\* H181.

### **RSP\* H180 - Clinical Practicum**

**Credits:** 1

Students will perform supervised respiratory care in the clinical setting. Clinical experiences will focus on the areas of chart review, documentation and reporting, bedside assessment, infection control techniques, medical gas therapy, aerosol and humidity therapy, aerosol medication delivery, and CPR. Students will develop respiratory care plans that integrate respiratory care theory and practice.

**Prerequisite(s):** RSP\* H112 and RSP\* H121 with grades of C or better. **Corequisite(s):** RSP\* H141 and RSP\* H131.

### **RSP\* H181 - Clinical Practicum II**

**Credits:** 2

This course provides supervised clinical experience in providing respiratory care to medical floor patients. Clinical experiences will focus on lung expansion therapy, airway clearance therapy, non-invasive positive pressure ventilation, airway management, and arterial blood gas sampling. Students will develop respiratory care plans that integrate respiratory care theory and practice.

**Prerequisite(s):** RSP\* H180, RSP\* H141, RSP\* H131 with grades of "C" or better. **Corequisite(s):** RSP\* H151.

### **RSP\* H201 - Future Trends**

**Credits:** 2

A seminar course focusing on current issues affecting respiratory care. Throughout the semester, students will present on future trends.

**Prerequisite(s):** RSP\* H262, RSP\* H270, RSP\* H281 with grades of "C" or better. **Corequisite(s):** RSP\* H282 and RSP\* H291.

### **RSP\* H262 - Advanced Principles of Respiratory Care**

**Credits:** 4

This course will cover principles and practices of mechanical ventilation. Indications, applications, physiological effects, and complications of mechanical ventilation will be studied. Integrated laboratory practice will include hands-on manipulation of state-of-the-art mechanical ventilators and simulation experiences.

**Prerequisite(s):** RSP\* H151, RSP\* H181 with grades of "C" or better. **Corequisite(s):** RSP\* H270 and RSP\* H281.

### **RSP\* H270 - Hemodynamic and Critical Care Monitoring**

**Credits:** 3

This course focuses on hemodynamic monitoring and cardiopulmonary and neurological assessment of the critically ill adult patient. Topics include cardiopulmonary assessment, EKG rhythm interpretation, invasive cardiovascular pressure monitoring, critical care pharmacology, and neurological assessment and monitoring.

**Prerequisite(s):** RSP\* H151, RSP\* H181 with grades of "C" or better. **Corequisite(s):** RSP\* H262 and RSP\* H281.

### **RSP\* H271 - Pulmonary and Cardiovascular Diagnostics**

**Credits:** 2

The student will learn to perform and interpret bedside spirometry tests as well as interpret the results of advanced pulmonary function studies including quality control techniques. Additional topics covered include pulmonary rehabilitation and exercise testing, cardiopulmonary stress testing, and metabolic monitoring.

**Prerequisite(s):** RSP\* H151 with grade of "C" or better.  
**Corequisite(s):** RSP\* H201, RSP\* H282, and RSP\* H291.

### **RSP\* H281 - Advanced Clinical Practicum**

**Credits:** 2

This course provides supervised clinical application of principles and practices learned in RSP\*H180 and RSP\*H181. A capstone assessment focusing on these principles is included. In addition, students will provide respiratory care to patients in the critical care setting. General critical care procedures including artificial airway management, initiation and management of continuous mechanical ventilation, and assessment of cardiopulmonary parameters will be practiced.

**Prerequisite(s):** BIO\* H212, RSP\* H151, RSP\* H181 with grades of "C" or better. **Corequisite(s):** RSP\* H262 and RSP\* H270.

### **RSP\* H282 - Advanced Clinical Practicum II**

**Credits:** 2

This course provides supervised clinical experiences in the adult, neonatal, and pediatric intensive care units. Clinical experiences will focus on hemodynamic monitoring and assessment, respiratory care in the emergency setting, and continuous mechanical ventilation of the adult, neonate, and pediatric patient. Students will also complete an Advanced Cardiac Life Support (ACLS) course during this clinical practicum.

**Prerequisite(s):** RSP\* H262, RSP\* H270, RSP\* H281 with grades of "C" or better. **Corequisite(s):** RSP\* H201 and RSP\*H292.

### **RSP\* H291 - Perinatal and Pediatric Respiratory Care**

**Credits:** 2

This course provides the student with a comprehensive study of pediatric and neonatal respiratory care. Topics include embryology, fetal development, neonatal transition, diagnostic and therapeutic procedures, cardiopulmonary pathophysiology, ventilator management, and critical care techniques.

**Prerequisite(s):** RSP\* H270, RSP\* H262, RSP\* H281 with grades of "C" or better. **Corequisite(s):** RSP\* H282.

## **Sociology**

### **SOC\* H101 - Principles of Sociology**

**Credits:** 3

A general introduction to the science of sociology, including the "sociological imagination," theory and methods. Students are taught what is unique about the way in which sociologists view and analyze human behavior. The role of the social structure and how it affects our lives will be emphasized. There will also be an emphasis on how sociologists develop and test their hypotheses, as well as on various aspects of social life such as culture, groups and institutions, deviance and social control, inequality, ethnicity, and family.

**Prerequisite(s):** Eligibility for ENG\* H101.

### **SOC\* H201 - Contemporary Social Issues**

**Credits:** 3

This course presents an analysis of current sociological issues with emphasis on social stratification, inequality and sociocultural dynamics. Topics include ageism, sexism, population growth and decline, racism, modernization, and technology.

**Prerequisite(s):** SOC\* H101.

### **SOC\* H210 - Sociology of the Family**

**Credits:** 3

Students will examine marriage and family relationships from a sociological perspective, concentrating on first meetings through marriage, having and rearing a family, divorce, and remarriage. Topics considered include: gender roles, love relationships, sexual fulfillment, communication, dual-income marriages, and step-families.

**Prerequisite(s):** SOC\* H101 or equivalent.

### **SOC\* H211 - Sociology of Gender**

**Credits:** 3

This course explores the social organization, construction and politics of gender within historical and cultural contexts, and explains how gender inequalities are maintained and perpetuated through social institutions and processes of socialization. Topics include gender and sexuality, family, work, politics, power, education, media, violence, intersectionality, and inequality.

**Prerequisite(s):** SOC\* H101.

### **SOC\* H221 - Social Inequality**

**Credits:** 3

This course addresses the causes and consequences of inequality based on race, gender, ethnicity, age, religion, and disability through an examination of the social structure, culture, history, and social institutions of American society.

**Prerequisite(s):** SOC\* H101.

### **SOC\* H225 - Death and Dying**

**Credits:** 3

An exploration of the stages of death and dying. Special emphasis will be placed on understanding grief and loss. The course will focus on the following: the dying person, sudden death and the effect on the family, cultural and economic issues, the broad moral aspects of death, and other related problems.

### **SOC\* H240 - Criminology**

**Credits:** 3

Students will examine problems of law and order from a sociological perspective. The formation of laws, the causes of crime, and societal responses to crime will be considered. Topics to be considered include law-making as a social process, social and psychological explanations of criminal behavior, courts, punishment, imprisonment, and rehabilitation.

**Prerequisite(s):** SOC\* H101 or by permission of instructor.

## **Theater**

The Division of Liberal Arts and Behavioral/Social Sciences encourages students to register for theater courses in order to develop appreciation of, and skills in, the theater arts. Some of the courses are required in career programs; others are designed for students' interests and personal development. Theater students are required to engage in both performance and technical theater course work. Consultation with counselors will help determine specific needs.

### **THR\* H101 - Introduction to Theater**

**Credits:** 3

A survey of the historical development of Western dramatic literature from the Greeks to the present. This course also explores the essential hands-on components of the theater, including playwriting, acting, design, and crew, utilizing both creative and analytical projects.

### **THR\* H102 - Theatre History**

**Credits:** 3

A concise study of the history of theatre from the Greek and Roman Theatre to the present. Each era of history will be examined through formal study, plays, slides, and videos.

### **THR\* H110 - Acting I**

**Credits:** 3

A practical approach to the art of acting, with special attention to the development of the actor's instrument, including voice, body, the senses, creativity, and interpretation. The course combines individual and group exercises and assignments.

### **THR\* H112 - Voice and Diction**

**Credits:** 3

This course concentrates on the methods of creating proper articulation, vocal tone, pitch, pace, and resonance; the practical application of breathing, relaxation, tongue and lip placement; and how these elements pertain to voice and diction. The final goal of this course is to instill in the student an awareness of the patterns and styles of speech that are acceptable and, in some instances, demanded upon the acting stage and in the real world.

### **THR\* H115 - Improvisation**

**Credits:** 3

This is an intensive course that will build understanding of the technique and application of improvisational practice. Students will learn through physical and vocal exercises, theatre games and improvised scene work in order to develop their ability to interact and react,

working moment-to-moment to create characters and scenes. This work will give the actor a heightened awareness and confidence in improvised work, as well as in scripted performances of theatre.

### **THR\* H120 - Stagecraft**

**Credits:** 3

This course will examine the basic components of stagecraft and production techniques, with a focus on set construction and painting, lighting, properties, costumes, and production management. The course involves classroom study but includes hands-on application on stage productions.

**Lab Hours:** 3

### **THR\* H190 - Theater Practicum I**

**Credits:** 3

This course involves students fulfilling advanced responsibilities for the production of a play. Areas such as acting, script analysis, singing, movement, the design, the analysis of design history and development of sets, props, costuming, make-up, lighting, sound and theater administration and management will be explored through the process of rehearsing and producing a play for performance.

**Prerequisite(s):** Approval of Instructor

**Lecture Hours:** 6

### **THR\* H210 - Acting II**

**Credits:** 3

A continuation of the practical approach to the art of acting as outlined in Acting Techniques I. Emphasis on scene study and character development.

**Prerequisite(s):** THR\* H110.

**Note:** Three additional rehearsal hours required.

### **THR\* H225 - Directing**

**Credits:** 3

Basic methods and techniques in directing a play, with special emphasis on script analysis, methods of rehearsing, and working with actors. Assignment directing short scenes.

**Prerequisite(s):** THR\* H101 and THR\* H110.

**Note:** Three rehearsal/laboratory hours required.

### **THR\* H226 - Musical Theater Production**

**Credits:** 3

The practical application and collaboration of several performance areas and/or technical skills as they relate directly to a musical theater production. Areas include: acting, singing, dancing; set construction, lighting crew, sound crew, costume crew and stage management.

### **THR\* H228 - Musical Theatre Training I**

**Credits:** 3

This course is a combination of theory and practice, which examines the history of musical theatre and emphasizes this American contribution to the literary and performing arts while introducing students to the process of embodying character through singing.

**Note:** The performance component of this course is not intended to teach you the mechanics of how to sing. Instead, this course will focus on providing you with the tools to sing with more confidence, honesty, connection, and personal investment.

### **THR\* H229 - Musical Theatre Training II**

**Credits:** 3

This course is a combination of theory and practice, which examines the history of musical theatre and emphasizes this American contribution to the literary and performing arts while introducing students to the process of embodying character through singing.

Musical Theatre Training II is a performance-oriented course in which students participate in musical theatre projects that incorporate singing, acting, and movement. In addition to performance skills, students will embark on a study of musical theatre styles from European Operetta to contemporary Rock Musicals.

**Note:** The performance component of this course is not intended to teach you the mechanics of how to sing. Instead, this course will focus on providing you with the tools to sing with more confidence, honesty, connection, and personal investment.

### **THR\* H230 - Playwriting**

**Credits:** 3

This course is an introduction to the craft of playwriting, including basic techniques of dialogue, character development, conflict, and structure. Students will develop an understanding of different theatrical genres to their writing, learn to consider such elements as lighting, sound, movement, blocking, props, set design, etc. in the creation of a play, and utilize different revision strategies to their work.

**Prerequisite(s):** THR\*H101 or ENG\*H102

### **THR\* H231 - Drama**

**Credits:** 3

This survey course provides students with an opportunity to learn about the world's great plays. The selected canon of dramatic writings begins with the early Greek playwrights, and continues through the Middle Ages, the Renaissance, Modern Europe, and both modern and contemporary American playwrights. The course provides students with a chance to develop a historical and critical appreciation of writers and their works, while also exploring some basic skills in playwriting.

**Prerequisite(s):** ENG\* H102 or ENG\* H200.

### **THR\* H290 - Theater Practicum II**

**Credits:** 3

This course involves students fulfilling advanced responsibilities for the production of a play. Areas such as acting, script analysis, singing, movement, the design, the analysis of design history and development of sets, props, costuming, make-up, lighting, sound and theater administration and management will be explored through the process of rehearsing and producing a play for performance. This course provides a continuation of the activities as described in THR\* H190 with an emphasis on further development of theatre arts skills.

**Prerequisite(s):** Approval of Instructor

**Lecture Hours:** 6

### **THR\* H295 - Theater Practicum III**

**Credits:** 3

This course provides a further continuation of the activities as described in THR\* H290, with an emphasis on either selected styles and methods, or playwriting and performance as determined by the instructor.

**Prerequisite(s):** THR\* H290. **Lab**

**Hours:** 3

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