



2023 | **2024**

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ACADEMIC CALENDAR

Specific Connecticut State Community College calendar dates are in development. The Common Calendar for the Connecticut State Colleges and Universities can be found on the CSCU Academic Calendar page.

Fall 2023

CC Faculty Semester Begins	August 25, 2023
CC Classes Start	August 29, 2023
Labor Day, NO CLASSES	September 4, 2023
CC Reading Day, NO CLASSES	November 7, 2023
Thanksgiving Recess, NO CLASSES	November 22-26, 2023
CC Final Exams.....	December 12-18, 2023
CC Faculty Semester Ends	December 23, 2023

Spring 2024

CC Faculty Semester Begins	January 16, 2024
CC Classes Start	January 19, 2024
CC President's Day, NO CLASSES	February 19, 2024
Spring Break Recess, NO CLASSES	March 11-17, 2024
Day of Reflection Recess, NO CLASSES	March 29-31, 2024
CC Final Exams.....	May 7-13, 2024
Memorial Day, NO CLASSES	May 27, 2024
CC Faculty Semester Ends	June 1, 2024

ABOUT THE COLLEGE

Mission

The Connecticut State Community College provides access to academically rigorous and innovative education and training focused on student success. The College supports excellence in teaching and learning, makes data-informed decisions, promotes equity, and advances positive change for the students, communities, and industries it serves.

Vision

CT State will be recognized for exceptional student success, educational leadership, and transformative collaboration with business and industry, government, educational, and key stakeholders while advancing diverse opportunities for Connecticut's citizens and communities.

Equity Statement

The CSCU system commits to bold and disruptive change by actively identifying, naming, and dismantling structural racism, systemic poverty, and other barriers; establishing equitable and anti-racist policies and practices; and empowering students, faculty, staff, and administrators to advance racial, social, and economic justice. Our core collective responsibility is to continuously assess practices and policies and transform the world we live in by eliminating inequities.

Accreditation & External Agency Recognition

Institutional Accreditation

On June 16, 2023, the **New England Commission of Higher Education (NECHE)** voted to grant initial accreditation to Connecticut State Community College (CT State) effective July 1, 2023.

Specialized Accreditation, Certification, and Recognition Agencies

Connecticut State Community College is proud to be working with the following organizations to ensure that our programs meet the highest standards in their respective areas of specialization.

- Accreditation Board for Engineering and Technology
- Accreditation Commission for Education in Nursing
- Accreditation Counsel for Education in Nutrition and Dietetics
- Accreditation Counsel for Occupational Therapy Education
- Accrediting Bureau of Health Education Schools
- American Bar Association
- American Culinary Federation Education Foundation Accrediting Commission
- American Health Information Management Association Professional Certificate Approval Program
- American Library Association Allied Professional Association
- American Veterinary Medical Association Committee on Veterinary Technician Education and Activities
- American Welding Association, Association of Collegiate Business Schools and Programs
- Commission on Accreditation in Physical Therapy Education
- Commission on Accreditation of Allied Health Education Programs
- Accreditation Review Council on Education in Surgical Technology and Surgical Assisting
- Commission on Accreditation of Allied Health Education Programs

- Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions
- Commission on Accreditation of Allied Health Education Programs Joint Review Committee on Diagnostic Medical Sonography
- Commission on Accreditation of Allied Health Education Programs Medical Assisting Education Review Board
- Commission on Dental Accreditation/American Dental Association
- Commission on Opticianry Accreditation
- Committee on Accreditation for Respiratory Care
- ISO 9001-2015 Manufacturing Certification
- Joint Review Committee on Education in Radiologic Technology
- Joint Review Committee on Nuclear Medicine Technology
- National Association for the Education of Young Children
- National Association of Schools of Music
- National Automotive Technician Education Foundation, Automotive Service Excellence Education Foundation
- National Fire Academy Fire and Emergency Services Higher Education
- The National Institute for Metalworking Skills

College Leadership

Terrence Cheng - Chancellor, Connecticut State Colleges and Universities

John Maduko, M.D. - President, CT State Community College

President's Cabinet

Levy Brown, Ed.D., Provost and Vice President of Academic Affairs

John-Paul Chaisson-Cardenas, Ph.D., MSW, Vice-President for Diversity, Equity and Inclusion

Thomas G. Coley, Ph.D., Executive Vice President, of Strategic Partnerships and Enterprise Performance

Tamika L. Davis, Ed.D., Interim Vice President of Enrollment Management

Cheryl C. DeVonish, J.D., CEO CT State Norwalk and Chief Labor Relations Officer

Karen Hynick, Ed.D., CEO, CT State Quinebaug Valley and Executive Director of P-20 Initiatives

Kerry A Kelley, Vice President of Finance and Chief Financial Officer

President's Leadership Council

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John-Paul Chaisson-Cardenas, Ph.D., MSW <i>VP of Diversity, Equity, and Inclusion</i>	860-612-7056	Jchaisson-cardenas@commnet.edu
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Michael A. Rooke, Ph.D. Northwestern Campus	860-738-6410	MRooke@nwcc.commnet.edu

Continuing Notice of Nondiscrimination

CT State Community College does not discriminate on the basis of race, color, religious creed, age, sex, national origin, marital status, ancestry, present or past history of mental disorder, learning disability or physical disability, sexual orientation, gender identity or expression, veteran status, criminal record, genetic information or any other federal or state protected class in its employment, programs, and activities. For information regarding the nondiscrimination, disability, and Title IX policies/procedures, contact: John-Paul Chaisson-Cardenas, Vice President for Diversity, Equity and Inclusion, CT State Community College, 860-612-7056, jchaisson-cardenas@commnet.edu.

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 under the 12 college model 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 is offered at their home campus location,
- 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.

In order to accommodate students who began their studies in a legacy college and will complete their degrees or certificates at CT State, a procedure has been established to allow a variance from the CT State graduation requirements for students in the following circumstances:

For any student who CT State has determined meets all requirements of a legacy Connecticut community college degree or certificate program, but does not meet the minimum CT State credit threshold required for the equivalent aligned degree or certificate, the following criteria must be met prior to the awarding of the credential:

- The student was previously enrolled in an equivalent degree or certificate program at a legacy Connecticut community college
- The student meets the minimum number of credits required for graduation from the legacy degree or certificate program
- The student has met the required outcomes of the legacy degree or certificate program
- The minimum number of credits completed for a degree equals 60 credits or more
- The student has met all other CT State Community College requirements for graduation

Selective admissions or specialized accreditation programs will be required to follow accrediting agency standards regarding credit variances.

The Campuses of Connecticut State Community College

ASNUNTUCK

170 Elm Street
Enfield, CT 06082
Phone: 860-253-3012

CAPITAL

990 Main Street
Hartford, CT 06103
Phone: 860-906-5000

GATEWAY

20 Church Street
New Haven, CT 06510
Phone: 203-285-2000

88 Bassett Road
North Haven, CT 06473

HOUSATONIC

900 Lafayette Boulevard
Bridgeport, CT 06604
Phone: 203-332-5966

MANCHESTER

Great Path
Manchester, CT
Phone: 860-512-3000

MIDDLESEX

100 Training Hill Road
Middletown, CT 06457
Phone: 860-343-5719

220 Coe Avenue
Meriden, CT 06450

NAUGATUCK VALLEY

750 Chase Parkway
Waterbury, CT
Phone: 203-575-8000

190 Main Street
Danbury, CT 06810

NORTHWESTERN CONNECTICUT

Park Place East
Winsted, CT 06098
Phone: 860-738-6300

NORWALK

188 Richards Avenue
Norwalk, CT 06854
Phone: 203-857-7000

QUINEBAUG VALLEY

742 Upper Maple Street
Danielson, CT 06239
Phone: 860-932-4000

729 Main Street
Willimantic, CT 06226

THREE RIVERS

574 New London Turnpike
Norwich, CT 06360
Phone: 860-215-9016

TUNXIS

271 Scott Swamp Road
Farmington, CT 06032
Phone: 860-773-13

GETTING STARTED @ CT STATE

Overview

Apply for admission by creating an account and complete the online application. Be advised that applicants must provide:

- proof of high school or college graduation or GED and
- proof of immunity to measles, mumps, rubella and varicella (MMRV) to be accepted into a degree program, to be eligible for financial aid, and/or to graduate from CT State Community College.

Also be advised that, depending upon the submitted application, applicants may also be required to submit additional supplemental items to address **applicants with specific considerations** - see below for additional details for homeschooled students, veterans, and international students. CT State is an open admission institution, but some programs within the college have limited enrollment and **selective admission** processes. Applicants to selective programs should familiarize themselves with the additional requirements detailed on the program pages in this catalog.

Graduating high school seniors: apply and begin the enrollment process as early as possible, which includes course placement (in progress transcripts are accepted), completion of the financial aid (FAFSA) process, advising, registration, and payment of tuition and fees. Upon graduation, please ask your high school to send a final transcript to the Admissions Office.

Apply for Financial Aid

Students must be enrolled in a degree program to receive eligible financial aid, including federal grants, loans or PACT funds. The FAFSA opens October 1 of each year, and students are encouraged to apply as soon as possible. Priority deadlines for financial aid are May 15 for the fall semester and October 1 for the spring semester. Students applying for financial aid after August 1 for the fall and January 1 for the spring should be prepared to pay tuition and fees at the time of registration. If eligible and approved for financial aid, the payment may be reimbursed. Payment plans are available through the campus Bursar's or Cashier's Office to those registered for at least six credit hours.

CT State's FAFSA Code: 007635*

During the transition to a single, statewide college, this code will identify Capital Community College on the FAFSA. The Department of Education will update the college name on the FAFSA in the summer of 2023.

Determine Course Placement

Course placement is currently determined by final high school GPA and/or SAT/ACT scores. In some cases, students are asked to complete assessment testing. Students that have completed college-level English and/or math must send an official transcript to the Admissions office of your preferred campus for evaluation. AP Score Reports are required to transfer AP courses.

Former Students Seeking Readmission

Students who have previously enrolled in a degree or certificate program of study at CT State Community College, but have not attended the College for two or more years, must submit an application to the college as a readmitted student. This includes students of any of the Connecticut Community Colleges prior to the merger of Fall 2023. Depending upon how long a student has been separated from the College, resubmission of matriculation items may also be required to complete the admission application. Matriculation items can include proof of high school completion and immunizations.

Residency

Per general statutes of CT Sec. 10a-29. (Formerly Sec. 10-329e). Determination of student status.

Per general statutes of CT Sec. 10a-30, it shall be presumed that the establishment of a new domicile in the state of Connecticut by an emancipated person has not occurred until they have resided in this state for a period of not less than one year. See general statutes 10a-27, 10a-28, 10a-29, 10a-30 for full text and related statutes.

Per Public Act 11-43, undocumented students shall be entitled to classification as an in-state student for tuition purposes, (A) if such person (i) resides in this state; (ii) attended any educational institution in this state and completed at least four years of high school level education in this state; (iii) graduated from a high school in this state, or the equivalent thereof, and is registered as an entering student, or is enrolled at a public institution of higher education in this state, and (B) if such person is without legal immigration status, such person files an affidavit with such institution of higher education stating that they have filed an application to legalize their immigration status, or will file such an application as soon as they are eligible to do so.

NEBHE - The Board of Trustees adopts the following recommendations of the New England board of higher education (NEBHE) for reciprocity among the New England states through the New England regional student program, with the reservation that priorities go to Connecticut students in the event of budget and/or space limitations: 1. Nonresident students whose traveling time would be less if attending a CT State than if attending a similar instate institution are permitted to attend the Connecticut institution at the NEBHE tuition rate, which is fifty percent above the resident tuition rate, pursuant to section 10a-67 of the general statutes, as amended. 2. Nonresident students who wish to enroll in a CT State degree program which does not exist in their home states are permitted to enroll in such program at the NEBHE tuition rate.

Transfer Admissions

Students may transfer to CT State from other colleges for any semester. In addition to following the procedures for admission into a program, transfer students should submit an official transcript from any other college(s) and universities attended and must be an accepted or enrolled student with CT State for the completion of a transcript evaluation. Official transcript(s) must be sent by mail or sent electronically directly from your previous college(s) to the CT State Admissions Office. Student copies of transcripts/unofficial transcripts will not be accepted for transfer evaluation. Official transcripts are accepted through e-transcript services such as Parchment, College Board, and the National Student Clearinghouse and by postal mail. Transfer grades are not included in CT State's calculation of grade point average (GPA).

Acceptance of Transfer Credit Policy at Connecticut State Colleges and Universities

Board of Trustees Policy 3.17.1 (Approved 1973; amended 1979, 2005 and 2007.)

At CT State, degree and certificate credit shall be granted only for credit courses completed at all institutions within the Connecticut state system of higher education and at all other collegiate institutions accredited by an agency recognized by the Council for Higher Education Accreditation as either a "Regional Accrediting Organization" or a "Specialized and Professional Accrediting Organization" in accordance with the following:

Degree and certificate credit shall be granted for all credit courses that are applicable to the objectives of, or equivalent to the course requirements of, the curriculum in which the transferring student enrolls. Credit work that is not applicable or equivalent to curriculum requirements shall be accepted for credit at the discretion of the College. Degree and certificate credit shall also be granted on the basis of performance on examinations in accordance with standards and limits approved by the Board of Regents.

Degree and certificate credit shall be granted for credit courses completed with a letter grade of "C-minus" or better, or with a grade of "P" (Pass). Such credit courses shall be accepted only for credit, and letter grades assigned by other institutions shall not be recorded or included in computations of student grade point averages.

Notwithstanding the number of degree or certificate credits which shall be granted in accordance with the foregoing, the student must complete at least twenty-five percent of the minimum credit requirements for the degree or certificate through coursework at the College awarding the degree or certificate.

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-specialty accredited program, the College shall provide appropriate means for the validation of the student's competency in the technical specialty course areas.

This policy shall appear in all college catalogs.

Prior Learning Assessment

Advanced Placement: Degree credit will be granted on the basis of scores on the Advanced Placement Examinations (AP Exams) administered by the College Entrance Examination Board. Students who earn a 3 or higher receive credit for the courses for which the examinations are stipulated as measures. Students must request official CLEP scores from College Board to be sent to CT State Community College electronically CTState-TranscriptEval@ct.edu or mailed directly to: CT State Community College, Attn: Admissions, Transcript Evaluation, 185 Main Street, New Britain, CT. 06051.

Academic Credit for Military Experience: Veterans may obtain transfer credit for courses successfully completed in schools of the United States Armed Forces provided such courses are deemed to be equivalent and applicable to CT State degree requirements.

Students may apply for evaluation of prior learning by utilizing one of these examination options:

- The College Level Examination Program (CLEP), administered by the Educational Testing Service in Princeton, NJ.
- College-developed examinations produced by some programs and departments at CT State. For further information on this option, please contact the appropriate program coordinator or department chairperson.
- Credit through portfolio assessment. Prior learning is assessed by Charter Oak State College. Once credit is established, CT State will use the credit as part of the transfer evaluation process, transferring in credit appropriate to the student's program of study.

Dual Enrollment Programs

There are a few options for high school students wishing to take college classes while still enrolled in high school, from participating in dual enrollment programs between your high school and CT State Community College, to just taking a class on your own. Inquire with your school counselor on the best route to obtain college credit, or contact our recruiting staff for more information, CTState-AdmissionsRecruitment@ct.edu.

Financial Aid Handbook

Consult the CT State Financial Aid Handbook for everything you need to know about paying for college.

Tuition & Fees

CT State In-State Tuition Rates 2023-2024

Please note: tuition and fees are subject to change.

Credit Hours	Tuition	College Services Fee	Total
1	\$183	\$110	\$293
2	\$366	\$110	\$476
3	\$522	\$110	\$659
4	\$732	\$130	\$862
5	\$915	\$150	\$1,065
6	\$1,098	\$170	\$1,268
7	\$1,281	\$190	\$1,471
8	\$1,464	\$210	\$1,674
9	\$1,647	\$230	\$1,877
10	\$1,830	\$250	\$2,080
11	\$2,013	\$270	\$2,283
12 or more**	\$2,196	\$290	\$2,486
Annual Full-time	\$4,392	\$580	\$4,972

* In-state tuition and fees for neighboring States (Massachusetts, Rhode Island and New York) at all CT State campuses.

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

Out of State Tuition Rates*

Credit Hours	Tuition	Services Fee	Total
1	\$523	\$300	\$823
2	\$1,046	\$300	\$1,346
3	\$1,569	\$300	\$1,869
4	\$2,092	\$350	\$2,442
5	\$2,615	\$400	\$3,015
6	\$3,138	\$450	\$3,588
7	\$3,661	\$500	\$4,161
8	\$4,184	\$550	\$4,734
9	\$4,707	\$600	\$5,307
10	\$5,230	\$650	\$5,880
11	\$5,753	\$700	\$6,453
12 or more**	\$6,276	\$750	\$7,026
Annual Full-time	\$12,552	\$1,500	\$14,052

* In-state tuition and fees for neighboring States (Massachusetts, Rhode Island and New York) at all CT State campuses.

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

NEBHE Tuition Rates*

Credit Hours	Tuition	Services Fee	Total
1	\$275	\$140	\$415
2	\$550	\$140	\$690
3	\$825	\$140	\$965
4	\$1,100	\$170	\$1,270
5	\$1,375	\$200	\$1,575
6	\$1,650	\$230	\$1,880
7	\$1,925	\$260	\$2,185
8	\$2,200	\$290	\$2,490
9	\$2,475	\$320	\$2,795
10	\$2,750	\$350	\$3,100
11	\$3,025	\$380	\$3,405
12 or more**	\$3,300	\$410	\$3,710
Annual Full-time	\$6,600	\$820	\$7,420

* In-state tuition and fees for neighboring States (Massachusetts, Rhode Island and New York) at all CT State campuses.

**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

Fee Description	Total
Clinical Program Fee-Level 1*	\$487
Clinical Program Fee-Level 2*	\$359
Advanced Manufacturing Lab Fee (per course) *** (3)	\$120
Supplemental Course Fee Level 1 **	102.50 (Supplemental Course Fee Level 1 + Supplemental Course Fee Level 2) - Max per Term - \$410
Supplemental Course Fee Level 2 ** (2)	\$205 (Supplemental Course Fee Level 1 + Supplemental Course Fee Level 2) - Max per Term - \$410
Material Fee *** (1)	\$51 Max per Term - \$102

* Per semester; not assess Material or Supplemental Course Fee

** Per course; level determined by additional contact hours

Level 1 = 1 to 1.5 contact hours greater than credit hours

Level 2 = 2 or more contact hours greater than credit hours

*** Per course, where applicable

(1) Material Fee excludes Advanced Manufacturing and Nursing courses which have different material assessments.

(2) Supplemental Course Fee Level 2 is maximum per course and maximum per semester to \$410.

(3) Advanced Manufacturing Program Fee with a per lab class fee of \$120. No maximum - number of labs per semester can vary greatly.

Student Activity Fees & Transportation Fees (per semester)

College (Campus)	Full-Time	Part-Time
Asnuntuck	\$20	\$10
Capital	\$20	\$10
Gateway	\$20	\$10
Housatonic	\$20	\$10
Manchester	\$20	\$10
Middlesex	\$20	\$10
Naugatuck Valley	\$20	\$10
Northwestern	\$20	\$10
Norwalk	\$20	\$10
Quinebaug	\$20	\$10
Three Rivers	\$20	\$10
Tunxis	\$20	\$10
Transportation Fee (U_PASS Per Semester) (1-3)	\$40	\$40
NV-Rides (For students identifying Naugatuck Valley as the home campus)	\$10	\$5

(1) Transportation Fee applies to all students at all campuses except Naugatuck Valley and Quinebaug Valley.

(2) Beginning with Fall 2019, CSCU may add additional non-credit cohorts with advance notice to DOT.

(3) Some exclusions apply

Late Drop Fees

Late drop fee for full-term course

90% of tuition and 100% of applicable fees are refunded for courses dropped between calendar day eight and census (20% of the term)

Late drop fee for abbreviated terms (Summer, Winter, Late Start or Other Variable Terms)

90% of tuition and 100% of applicable fees are refunded for courses dropped in the time period between 10% of the course's term length and 20% of the course's term length.

Additional Information

- Extension Fees (PDF)
- Half Credits (PDF)
- Tier II Fees (PDF)
- Student Enrollment Agreement

Applicants with Specific Considerations

Homeschooled Students

1. A home-schooled student is defined, for the purposes of this policy, as someone who has completed a secondary school education in a home school setting that is treated as a home school or private school under state law, or who is in the process of doing so.
2. Home schooled students who wish to attend Connecticut State Community College (CT State) to pursue a degree or certificate must meet the same admission requirements as any other applicant, except for providing evidence of graduation from a secondary school or obtaining a state equivalency diploma. This includes, but not necessarily limited to, completing an application, paying admissions fees, submitting evidence of inoculation against measles, mumps and rubella, taking placement tests, etc.
3. Home schooled applicants may also submit a copy of a transcript from any secondary school attended, whether or not they may have graduated therefrom, or a copy of a federal or state equivalency diploma, or a summary of the secondary program of study they pursued, and a certificate of successful completion thereof, signed by the parent or other provider of the home schooling.
4. Home schooled applicants may be required to submit transcripts, or records of study, if such are required for other applicants.
5. Home schooled applicants who wish to enroll at a CT State campus, but not pursue a degree or certificate, shall be treated as any other non-matriculated student at the college.
6. Home schooled applicants may, at the discretion of the college to which they are applying, be required to have an in-person interview with a college designee to assess the applicant's ability to benefit from the program of study.
7. The college shall develop such procedures, forms, and other materials as may be necessary to manage this policy.
8. The college shall also establish an appeals process, with appeals going to the Associate Vice President of Recruitment, Admissions and Community Outreach or designee who may, in special circumstances, waive the requirements of the policy.
9. If and when the State of Connecticut enacts laws or issues policies regarding home schooled students or their admissions to public colleges, this policy will be revised and reissued, as may be necessary, to ensure compliance therewith.

- Board Policy 5.1.5

Veterans

The federal government offers a wide variety of services to veterans through the U.S. Department of Veterans Affairs (VA Educational Benefits). CT State is committed to improving the resources available for student veterans on our campuses by fostering an encouraging environment to strengthen institutional and individual goals. The Veterans Certifying Official located at all 12 campuses of CT State can help eligible students apply for VA benefits. **You are advised to apply for veterans benefits as soon as you apply for admission to the College using the information found at <https://www.va.gov/education/how-to-apply/>.** To be eligible for VA benefits, you must be enrolled in a degree or certificate program. Most credit programs and some non-credit programs offered by the College are eligible for VA benefits. Approved programs can be found at the CT Office of Higher Education <https://www.ctohe.org/vet/default.shtm>. Once you have registered for classes and submitted your request for certification, the College will certify your enrollment to the VA. Your continued certification by the College is contingent upon meeting satisfactory academic progress guidelines (please see section below). A student whose Combined Academic Standing indicates suspension is academically ineligible to receive VA educational benefits.

Students receiving VA benefits must complete and submit a Veteran Enrollment/Benefit Contract to their campus Certifying Official each semester and notify them of any changes in their course load and/or program of study. Courses must meet requirements of the degree or certificate in which the veteran or dependent is enrolled.

"GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>."

Policy Protecting Students from Fees and Penalties Due to VA Payment Delay

In accordance with Title 38 US Code 3679 subsection (e), this school adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA. This school will not:

- Prevent the students enrollment; Assess a late penalty fee to;
- Require student secure alternative or additional funding;
- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Provide Chapter 33 Certificate of Eligibility (or its equivalent) or for Chapter 31, VA VR&E's contract with the school on VA Form 28-1905 (or its equivalent) by the first day of class.

Note: Chapter 33 students can register at the VA Regional Office to use E-Benefits to get the equivalent of a Chapter 33 Certificate of Eligibility. Chapter 31 student cannot get a completed VA Form 28-1905 (or its equivalent) before the VA VR&E case-manager issues it to the school.

- Provide written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies
- In addition, the VA GI Bill Comparison Tool will identify schools that have additional requirements.

Academic Standing

U.S. Department of Veterans Affairs (VA) regulations require that all students receiving VA educational benefits meet the College's academic standing policy as stated in the CT State college catalog. Students failing to meet the academic standards will have their VA educational benefits discontinued in accordance with the institution policy. 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 CT State policy. (Please see "Academic Suspension" section of this Handbook.) Should the appeal be successful, the student's enrollment will be reported retroactively to VA for the enrollment period to which the appeal applies.

Veterans Tuition Waiver

A waiver of general fund tuition is extended to all eligible Connecticut Veterans with service during certain wartime periods. Members of the Connecticut National Guard may also be eligible for waivers of tuition.

To be eligible for a tuition waiver, veterans must:

- be honorably discharged or released under honorable conditions for active service in the U.S. Armed Forces (U.S. Army, Navy, Marine Corps, Air Force, and Coast Guard). National Guard members, activated under Title 10 of the United States Code, also are included.
- have served at least 90 or more cumulative days active duty in time of war (please see Periods of Service below), except if separated from service earlier because of a federal Department of Veterans Affairs (VA) rated service-connected disability; or the war, campaign, or operation lasted less than 90 days and service was for the duration.
- be accepted for admission at CT State.
- be domiciled in Connecticut at the time of acceptance, which includes domicile for less than one year.
- Veterans must submit their DD-214 (Discharge Papers) to their campus Certifying Official. **Tuition waivers are not provided for Summer Session, Winter Intersession, or Credit-Free Courses.**

Periods of Service

Only those who served in the following manner may qualify:

Active duty for at least 90 days during:

- World War II..... December 7, 1941 - December 31, 1946
- Korean Conflict..... June 27, 1950 - January 31, 1955
- Vietnam Era..... February 28, 1961 - July 1, 1975
- Persian Gulf War..... August 2, 1990 - Until an ending date prescribed by Presidential proclamation or by law (no end date at this time). All military war service subsequent to August 2, 1990, is covered, including but not limited to, Enduring Freedom, Noble Eagle, Iraqi Freedom, Somalia, and Bosnia.

Engaged in combat or in a combat support role in:

- Lebanon..... July 1, 1958 - November 1, 1958, or September 29, 1982-March 30, 1984
- Grenada..... October 25, 1983 - December 15, 1983
- Operation Earnest Will..... July 24, 1987 - August 1, 1990 (escort of Kuwaiti oil tankers flying the U.S. flag in the Persian Gulf)
- Panama..... December 20, 1989 - January 31, 1990

Reservists must be mobilized in time of war for other than training purposes.

Connecticut National Guard Tuition Assistance

CT National Guard members will need to file an application with their unit before the beginning of each semester. The Certificate of Eligibility that is issued from the CT National Guard must be on file with your campus Certifying Official before the registration process can be completed.

Tuition waivers are not provided for Summer Session, Winter Intersession, or Credit-Free Courses.

Dependent Children/Surviving Spouse Waivers

State statutes also provide that tuition at Connecticut public colleges and universities may be waived for:

any Connecticut resident who is a dependent child or a surviving spouse of a member of the Armed Forces killed in action on or after September 11, 2001, who was a Connecticut resident; and

state residents who are dependent children of a person whom the Armed Forces has declared to be either missing in action or a prisoner of war while serving in the Armed Forces after January 1, 1960.

Courses Subject to Waiver

Tuition Waivers are for credit courses during the spring and fall semesters ONLY and are not provided for summer session, winter intersession, or Continuing Education/credit-free courses.

Expenses Not Covered

College costs other than tuition - such as for books, student activity and course fees, parking - are not waived. Waivers may also be reduced by the amount of education reimbursement you may receive from your employer.

Principles of Excellence

CT State adheres to the principles outlined in the Principles of Excellence executive order.

- Provide students with a personalized form covering the total cost of an education program.
- Provide educational plans for all Military and Veteran education beneficiaries.
- End fraudulent and aggressive recruiting techniques and misrepresentation.
- Provide accommodations for Service Members and Reservists absent due to service requirements.
- Designate a Point of Contact for academic and financial advising.
- Ensure accreditation of all new programs prior to enrolling students.
- Align institutional refund policies with those under Title IV.

Foreign Schools, High Schools, On-the-Job Training and Apprenticeship programs, Residency and Internship programs, and those who do not charge tuition and fees were not asked to comply with the Principles of Excellence.

The VA's Comparison tool will let you see if the school you are interested in attending participates in the Principles of Excellence program.

Veterans Oasis

CT State is dedicated to supporting our military community with their transition from service members to students. Each CT state campus provides a safe space specifically for veterans to study, relax and build comradery with other student veterans. Campuses also offer information on how to access Veteran Administration benefits for all who are eligible. Please see the links below for specific information for the campus you are attending.

International Students

CT State Community College (CT STATE) is authorized by the United States Government under the Department of Homeland Security and United States Citizenship and Immigration Services (USCIS), to enroll academically qualified international students into all Associate Degree Programs.

F-1 international students entering the United States will be admitted to CT State Community College for the Fall and Spring semesters of each academic year, must attend full time (12 or more credit/semester hours), and must maintain their full-time status to remain eligible for the duration of their F-1 Visa Status.

Application Deadlines

New Students:

- Fall Semester - June 15th
- Spring Semester - November 1st

Transfer Students (with an active I-20 from another US college/university):

- Fall Semester - July 20th
- Spring Semester - December 20th

All relevant information requested to complete the Application Process for a SEVIS I-20 must be provided by the due dates. Applicants unable to submit the required documentation by the due dates will be considered for the following semester and will have to submit updated financial documentation.

Admissions & SEVIS I-20 Documentation

CT State is an open enrollment institution and students are admitted into their Degree Programs upon completing the CT STATE Application process. CT State is not a Language Institute and does not issue SEVIS I-20's for Intensive English Language Studies across all campuses.

**Note: CT State Community College is not a Language Institute and does not issue SEVIS I-20s for Intensive English Language Studies across all campuses.*

The Admissions Application and all relevant documentation for requesting a SEVIS I-20 must be submitted to the Principal Designated School Official (PDSO) or Designated School Official (DSO) at CT State Community College. The following documentation must be provided by the prospective student before a SEVIS I-20 can be issued by CT State Community College (CT STATE). All documents must be translated into English, validated, and notarized as being an official, accurate translation.

New Students:

1. A completed CT State Community College Application (<https://ct.elluciancrmrecruit.com/Apply/>)
2. Proof of high school graduation or its equivalent
3. Proof of immunization against measles, mumps, rubella and varicella (chicken pox); a record of two doses of each required immunization must be on file with CT State prior to acceptance.
4. Copy of the student's passport (biographical page only)
5. English Proficiency:
 - a. TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System), or Duolingo official scores. The minimum TOEFL score for admission is 61 on the internet-based version. The minimum IELTS score for admission is 5.5. The minimum Duolingo score for admission is 85.
 - b. **Note: If your home campus is Norwalk, in Norwalk, CT, English placement can be provided upon arrival.*
6. Financial Sponsor & Affidavit of Support:

Affidavit of Support and supporting financial documents noting the student's intended source of financing available to cover their educational and living expenses while in the United States. All financial documents, including bank statements, must be in English and note currency values in US dollar equivalencies. (Please note that all funds must be liquid assets. Stock/Mutual/Retirement accounts/properties are not considered liquid assets.)
7. Housing Plan Letter showing student's intended US address, as well as permanent homeland address.

Transfer Students:

Transfer students in F-1 status transferring from a college/university in the US must provide

1. A completed CT State Community College Application (<https://ct.elluciancrmrecruit.com/Apply/>)
2. Proof of high school graduation or its equivalent
3. Proof of immunization against measles, mumps, rubella and varicella (chicken pox); a record of two doses of each required immunization must be on file with CT State prior to acceptance.
4. Proof that they are currently in status and eligible for transfer
5. A copy of F-1 Visa passport page
6. A copy of their current I-20, current college transcript
7. An International Student Transfer Form. This is provided by CT State Community College
8. English Proficiency:
 - a. While it is expected that an international applicant will have some level of English proficiency, the student's actual level of English proficiency will be determined upon their arrival on campus. All students must complete English and Math Placement Assessment prior to course registration or provide an official college transcript from the previous college/university showing completion of the of required college-level math and English courses.
 - b. Transfer students may also submit TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System), or Duolingo official scores. The minimum TOEFL score for admission is 61 on the internet-based version. The minimum IELTS score for admission is 5.5. The minimum Duolingo score for admission is 85.
9. Financial Sponsor & Affidavit of Support:

Affidavit of Support and supporting financial documents noting the student's intended source of financing available to cover their educational and living expenses while in the United States. All financial documents, including bank statements, must be in English and note currency values in US dollar equivalencies. (Please note that all funds must be liquid assets. Stock/Mutual/Retirement accounts/properties are not considered liquid assets.)
10. Housing Plan Letter showing student's intended US address, as well as permanent homeland address.

For the complete list of international students' admission requirements, please visit www.ct.edu/international.

Senior Citizens - Tuition Waiver

Connecticut residents aged 62 or older who have been accepted for admission to Connecticut State Community College shall be exempt from payment of tuition, general fees, and the application fee provided if, at the end of the regular registration period, there is space available in the course(s) in which the person intends to enroll. Proof of age must be submitted to the Business Office to complete the eligibility requirements for this waiver.

CLEP EXAM EQUIVALENTS (PENDING APPROVAL)*

CLEP Exam	Exam Score	Passing Score	Course(s)	CT State*	Credits
Business					
Financial Accounting	50	50	ACC* 113	ACCT 1130 - Principles of Financial Accounting	3
Information Systems	50	50	CSA* 105	CIS 1141 - Introduction to Management Information Systems	3
Introductory Business Law	50	50	BBG* 231	BUSN 2310 - Business Law I	3
Principles of Management	50	50	BMG* 202	BMGT 2020 - Principles of Management	3
Principles of Marketing	50	50	BMK* 201	BMKT 2010 - Principles of Marketing	3
Composition & Literature					
American Literature	50	50	ENG* 221	ENG 2620 - American Literature I	3
Analyzing and Interpreting Literature	50	50	ENG* 102	ENG 1020 - Composition II and Literature	3
College Composition	50	50	ENG* 101, ENG* ELE	ENG 0910 Composition Workshop & ENG 1010 Composition	6
College Composition Modular	50	50	ENG* 101	ENG 1010 - Composition	3
English Literature	50	50	ENG* 231	ENG 2520 - British Literature I	3
Humanities	50	50	HUM* ELE	HUM 1001 - Introduction to Humanities	3
Foreign Languages					
French Language: Levels 1 and 2	50 OR 63+	Level 1: 50 Level 1 and 2: 59+	FRE* 101, FRE* 102 FRE* 101, FRE* 102, HUM 297	<i>Level 1:</i> FREN 1011 - Elementary French I and FREN 1012 - Elementary French II <i>Level 1 and 2:</i> FREN 2011 - Intermediate French I and FREN 2012 - Intermediate French II	8
German Language: Levels 1 and 2	50 OR 63+	Level 1: 50 Level 1 and 2: 60+	GER* 101, GER* 102 GER* 101, GER* 102, HUM 297	<i>Level 1 and Level 1 and 2:</i> GERM 1011 - Elementary German I and GERM 1012 - Elementary German II	8
Spanish Language: Levels 1 and 2	50 OR 63+	Level 1: 50 Level 1 and 2: 63+	SPA* 101, SPA* 102 SPA* 101, SPA* 102, SPA* 201/HUM 297	<i>Level 1:</i> SPAN 1011 - Elementary Spanish I and SPAN 1012 - Elementary Spanish II <i>Level 1 and 2:</i> SPAN 2011 - Intermediate Spanish I and SPAN 2012 - Intermediate Spanish II	8
Spanish with Writing: Levels 1 and 2	50 or 65	Level 1: 50 Level 1 and 2: 65+	SPA* 101, SPA* 102 Level 1: SPA* 101, SPA* 102 Level 2: SPA* 101, 102, 201, 202	<i>Level 1 and Level 1 and 2:</i> SPAN 1030 - Elementary Spanish Composition I and SPAN 2030 - Intermediate Spanish Composition I	8

Continued next page ...

CLEP Exam Chart

CLEP Exam	Exam Score	Passing Score	Course(s)	CT State*	Credits
History & Social Sciences					
American Government	50	50	POL* 111	POLS 1002 - American Government	3
History of the United States I: Early Colonization to 1877	50	50	HIS* 201	HIST 1015 - US History to 1877	3
History of the United States II: 1865 to the Present	50	50	HIS* 202	HIST 1016 - US History from Reconstruction	3
Human Growth and Development	50	50	PSY* 201	PSY 2001 - Lifespan Development	3
Introduction to Educational Psychology	50	50	N/A	PSY 2020 - Educational Psychology	3
Introductory Psychology	50	50	PSY* 111	PSY 1011 - General Psychology I	3
Introductory Sociology	50	50	SOC* 101	SOC 1001 - Principles of Sociology	3
Principles of Macroeconomics	50	50	ECN* 101	ECON 1001 - Principles of Macroeconomics	3
Principles of Microeconomics	50	50	ECN* 102	ECON 1002 - Principles of Microeconomics	3
Social Sciences and History		50	SOC*/HIS* ELE	INDS 2299 - Independent Study	6
Western Civilization I: Ancient Near East to 1648	50	50	HIS* 101	HIST 1001 - Western History to the 1500s	3
Western Civilization II: 1648 to the Present	50	50	HIS* 102	HIST 1002 - Western History from the 1500s	3
Science & Mathematics					
Biology	50	50	BIO* 121	BIO 1210 - General Biology I	4
Calculus	50	50	MAT* 254	MATH 2600 - Calculus I	4
Chemistry	50	50	CHE* 121	CHEM 1210 - General Chemistry I	4
College Algebra	50	50	MAT* 172	MATH 1600 - Pathway to Calculus: College Algebra	3
College Mathematics	50	50	MAT* 137	MATH 1010 - Intermediate Algebra	3
Natural Sciences	50	50	SCI* ELE (non-lab)	SCI 1014 - Survey of Science	4
Precalculus	50	50	MAT* 186	MATH 1610 - Precalculus	3
*Recommendation based on research and review of all legacy CT State Community Colleges, other CSCU institutions and external Community Colleges. N/A - Not accepted or received by the college. Consult with each individual college. Spanish with Writing level 1 and 2 were included on 8/17/2022 - as suggested by the Test Administrator Council Meeting on Monday, August 1, 2022.					

STUDENT RIGHTS AND RESPONSIBILITIES

Student Code of Conduct

Academic institutions exist for the transmission of knowledge, the pursuit of truth, the development of students, and the general well-being of society. In line with this purpose, the Board of Regents for Higher Education ("BOR") in conjunction with the Connecticut State Colleges and Universities ("CSCU") has the duty to protect the freedoms of inquiry and expression, and furthermore, has the responsibility to encourage all of its members to develop the capacity for critical judgment in their sustained and independent search for truth. CSCU has certain self-defined institutional values. Principal among these values is respect for the safety, dignity, rights, and individuality of each member of the CSCU Community. The opportunity to live, study, and work in an institution which values diverse intellectual and cultural perspectives and encourages discussion and debate about competing ideas in an atmosphere of civility is a basic component of quality higher education.

All members of CSCU must at all times govern their social and academic interactions with tolerance and mutual respect so that the students who pass through a CSCU door are enriched by these experiences and are prepared for full and enlightened participation in a multi-cultural society. Because of the BOR's and CSCU's commitment to principles of pluralism, mutual respect, and civility, certain activities are not acceptable on CSCU campuses. Acts of intolerance, of hatred or violence based on race, religion, sexual orientation or expression, disability, gender, age, or ethnic background are antithetical to the BOR's and CSCU's fundamental principles and values. It is the BOR's and CSCU's responsibility to protect our students' right to learn by establishing an environment of civility. The disciplinary process is intended to be part of the educational mission of CSCU. Student disciplinary proceedings are not criminal proceedings and are not subject to court rules of procedure and evidence.

The full BOR Policy and accompanying procedures can be found here: <https://www.ct.edu/files/pdfs/2.1%20StudentCodeofConduct.pdf> . Procedures for Community College students differ from those procedures applicable to either the Universities or Charter Oak State College. This is due to the environmental, cultural and administrative differences within the types of the institutions comprising CSCU. Procedures for addressing allegations and sanctions regarding academic misconduct (as defined in Section I.D.1) for Community College Students as set for in this Section III of the Code.

Title IX

Title IX of the Education Amendments of 1972 is a federal law that protects all students attending or accessing services at an educational institution that receives federal funding. It allows all students to attend school in an environment free of harassment, gender based violence and discrimination. Violations of your rights under Title IX would be sexual assault, sexual harassment, sex discrimination or gender discrimination. At CT State Community College we take our responsibility to address and protect these rights very seriously. For information regarding the nondiscrimination, disability, and Title IX policies/procedures, contact: John-Paul Chaisson-Cardenas, Vice President for Diversity, Equity and Inclusion, CT State Community College, 860-612-7056, jchaisson-cardenas@commnet.edu .

Confidentiality of Student Education Records

The federal Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. Broadly, these are:

- The right to inspect and review the student's education records within 45 days of the day the College or University receives a request for access.
- The right to request amendment of an education record that the student believes is inaccurate.
- The right to provide written consent before the College or University discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.
- The right to refuse to permit the College or University to release Directory Information except in certain circumstances.
- 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.

A subset of student information, called "Directory Information," is designated by the Board of Regents as permissible to release under specific circumstances as described in full text of the policy.

Designated Directory Information, procedural details (including how to file a complaint), and exceptions to the above can be found in the full CSCU Board of Regents Policy 2.2.

Grade Appeals

Policy:

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, notation, or other academic decision. A student may seek campus-level review of the assignment of a grade, notation, or other decision affecting academic status in accordance with the procedure outlined in the college catalog.

The campus-level appeal will take place at the campus where the grade, notation, or course being appealed took place. The student shall be afforded the right to present a statement of appeal and relevant information in support of it. The faculty member shall also be afforded the right to present a statement of relevant information regarding the appeal. It is the student's responsibility to show that the decision in question is arbitrary, i.e., without a reasonable basis, or was made for improper reasons in violation of this policy. The student is entitled to a written response upon completion of the appeal procedure outlined in the college catalog.

The procedural time frames provided may be modified by the Campus CEO for good cause shown.

The decision of the Campus CEO, or designee shall be final.

Procedure:

There are three procedural options for responding to a student's campus-level review of the assignment of a grade or other decision affecting academic status: Regular Appeal, Expedited Non-Clinical Appeal, and Expedited Clinical Appeal. For all three options, Step 1 of the campus-level appeal process will not take place prior to the posting of final grades.

The Regular Appeal Procedure should be followed if the grade being appealed would not prevent a student from graduating, transferring, or progressing in their designated program the following semester or term. The regular appeal procedure would likely be completed within 40 business days of the start of the next full academic semester.

The Expedited Non-Clinical Appeal Procedure should be followed if the grade being appealed is from a non-clinical program and would prevent a student from graduating, transferring, or progressing in their designated program the following semester or term. The expedited (non-clinical) appeal procedure would likely be completed within 15 business days from the posting of the official final grade.

The Expedited Clinical Appeal Procedure should be followed if the grade being appealed is for a specialized course in a clinical program and would prevent a student from graduating, transferring, or progressing in their designated program the following semester or term. The expedited clinical appeal procedure would likely be completed within 10 business days from the Registrar's Office posting of the official final grade plus, if applicable, any additional days required for the completion of program-level appeal procedures stipulated by specialized accredited clinical programs. Some clinical programs may permit program-level appeal procedures to be completed prior to the Registrar's Office posting of the official final grade; however, Step 1 of the campus-level appeal process will not take place prior to the posting of final grades.

Students may reach out to their Guided Pathways Advisor and/or program advisor for assistance in navigating the appeals process.

Classroom Behavior Expectations

Being successful in college includes reading your syllabus, developing a relationship with your instructors to establish strong communication via email and in-person, understand the expectations of the course and course work, and setting aside study time to complete your assignments.

Importance of the Syllabus:

- Find your instructor's contact information and save it.
- Know exactly how you will earn your grade.
- Understand the course and college policies.
- Find the list of required course materials.

Develop a Relationship with your Instructors:

- Always attend class!
- Work with your instructor when you have questions or need help with coursework, assignments or understanding course content.
- Contact your instructor via email or make an appointment to talk to them during office hours or before class.

Understand How a College Course Operates:

- The college classroom will be fast paced and active. Your instructor will present information, design activities to help you practice skills and ask you to reflect on your learning process.
- Reflection is an importance practice in college courses, and it is up to you to:
 - Assess your learning competencies, processes and preferences. - Ask for help when needed and meet with you Guided Pathways Advisor to discuss additional campus and academic resources.
 - Take responsibility for your learning. - Self Advocate for additional help and set aside study time.
 - Seek assistance from the instructor when course assignments, essays or projects become too challenging or difficult to manage.
 - Ask your instructor for help as soon as possible.

Be Prepared and on task:

- How to use time on task effectively:
 - Use the study space you created to dedicate time to review course notes, and actively work on projects or assignments.
 - Find regular time and make it a habit.
 - Study when you are most alert.
 - Limit your study time to two hours per course.
 - Check in daily for each class to make sure you are up to date with assignments, upcoming projects/exams.
 - Complete all assignments as soon as possible.
 - Space out review sessions for exams or study time instead of cramming.
 - Plan a balanced schedule to prevent burnout.
 - Set SMART Goals for each block of study time:
 - Specific
 - Measurable
 - Attainable
 - Realistic
 - Time-based

Academic Integrity

- Actively Engage in the course you are registered for by attending your classes from the start of the semester. If you are attending an online course, make sure to initiate contact with your professor online and engage in discussion board assignments.

Resources:

- Online New Student Orientation
- Student Code of Conduct
- Academic Engagement Policy

Online Students' Rights

If you are enrolled in distance education at a participating State Authorization Reciprocity Agreement institution you are afforded certain rights under this agreement. Full details of this agreement are available at the CSCU System website.

Responsible Use of Information Technology

CT State and the CSCU System build and maintain an Information Technology infrastructure which is essential to the robust educational and professional environment of the institution. Members of the college community share in the benefits and responsibilities which accompany this technology. These responsibilities are enumerated in the CSCU Acceptable Use Policy - IT

ACADEMIC POLICIES AND PROCEDURES

Academic Integrity Statement

Academic misconduct includes, but is not limited to, plagiarism and all forms of cheating. Students are expected to do their own work on assignments, laboratory exercises, quizzes, examinations, and any other academic work.

Plagiarism is defined as the submission of work by a student for academic credit as one's own work of authorship which contains work of another author (whether purchased, borrowed, or otherwise obtained, from any source, including the Internet) without appropriate attribution, either intentionally or unintentionally.

Cheating includes, but is not limited to: (i) use of any unauthorized assistance in taking quizzes, tests or examinations; (ii) use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems or carrying out other assignments; (iii) the acquisition, without permission, of tests or other academic material belonging to a member of the College faculty or staff or any other individual or entity; (iv) falsifying laboratory results or other data; (v) submitting, if contrary to the rules of a course, work previously presented in another course; (vi) knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination, or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed; and (vii) engaging in any other behavior specifically prohibited by a faculty member in the course syllabus.

Unauthorized recording or transmissions includes, but is not limited to, the use of any electronic media or device for the transmission and/or recording of class material, unless authorized by the instructor.

Faculty can assign a grade of "F" to any student found guilty of academic misconduct. Such an "F" cannot be overridden by a student-initiated "W" (withdrawal from the specific class or withdrawal from all classes). If a student is found to have multiple infractions, a stronger penalty may be observed. Academic dishonesty can also result in other disciplinary sanctions as defined in the CSCU Student Code of Conduct.

Definitions

Academic Credit Hour

As adopted by our accreditor, NECHE, Connecticut State Community College defines a credit hour in compliance with the U.S. Department of Education.

A credit hour represents academic work requiring the equivalent of:

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 fifteen weeks for one semester or trimester hour of credit, or ten to twelve 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 required in paragraph (1) of this definition 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 hours.

Matriculated Student

A matriculated student is one who has been admitted to the College and is enrolled in a credit certificate or degree program. A non-matriculated (or non-degree) student is one who is taking classes at the College but has not enrolled in a credit certificate or degree program. Non-matriculated students are not eligible for Financial Aid.

Associate of Arts (AA)

A degree designed to build a foundational education in a particular subject, typically focused on the liberal arts. Some emphasize general education credits for transfer to a bachelor's degree.

Associate of Science (AS)

A degree designed to build a foundational education, typically in the sciences, mathematics, or technology. Some emphasize general education credits for transfer to a bachelor's degree.

Associate of Applied Science (AAS)

A degree that provides skills and knowledge, often in the form of a credential or qualification, that allow for direct entry into the work force; these degrees may serve as transfer degrees with or without a guarantee that additional credits will not be needed at the baccalaureate level within the CSCTU system.

Credit Certificate

Credit certificate programs may be comprised of a single course or small groups of courses generally intended for occupational training, upgrading, or retraining. Regardless of their duration or composition, certificate programs:

- require fewer than 60 credits.
- are comprised of courses for skills development required for employment or for career advancement and do not contain broad General Education requirements.

Grades and Grade Points

Letter grades are given at the end of each semester to indicate how well a student has met the goals established for each course. For each letter grade, there is a corresponding number called a grade point. These are used to calculate a student's grade point average, or GPA.

Grade Point Average (GPA)

Grade	Range	Grade Points per Credit Hour
A	93-100%	4.0
A-	90 - 92.99%	3.7
B+	87 - 89.99%	3.3
B	83 - 86.99%	3.0
B-	80 - 82.99%	2.7
C+	77 - 79.99%	2.3
C	73 - 76.99%	2.0
C-	70 - 72.99%	1.7
D+	67 - 69.99%	1.3
D	63 - 66.99%	1.0
D-	60 - 62.99%	0.7
F	< 60%	0
P	-	0
W (withdrawal)	-	0

Temporary Grades

Grade	Range	Grade Points per Credit Hour
I (Incomplete)	-	0
M	-	0

Administrative Marks

Grade	Range	Grade Points per Credit Hour
AU	-	0

Developmental grades

Grades earned in courses numbered below 1000 will appear with the "#" sign after the letter grade to designate their status.

NOTE: These grades are not included in College GPA calculation, but are included in the calculations that determine eligibility for Financial Aid.

Incomplete Grades

I - Incomplete

Used as a temporary grade assigned by a faculty member when coursework is missing and the student agrees to complete the requirements.

A student may request an Incomplete from the faculty member; that faculty member is not required to agree to the request. Faculty members should assign an Incomplete when there are extenuating circumstances, such as illness, that prevent a student from completing the assigned work on time. Further consideration should be given to determine if the student has participated in and completed at least 61% of the course, and, in the judgment of the faculty member, the student can complete the remaining work no later than the tenth week of the next standard semester.

Any faculty member that assigns an Incomplete shall document such an activity, and inform the student, the campus Dean of Faculty or campus dean responsible for faculty affairs, the campus supervisor of enrollment services, and other appropriate parties, as needed, using a common form. Supporting documentation, agreed upon by both the faculty and student, must include:

- A brief description of the requirements to be completed;
- The date by which the coursework must be submitted to the faculty member;
- A statement that the Incomplete will change to a specific letter grade if the work is not completed by the tenth week of the next standard semester.

If a student fails to complete the required work or fails to submit the work by the specified time, or if the faculty member fails to submit a replacement grade, the Campus Supervisor of Enrollment Supervisor or their designee shall convert the Incomplete on the student's transcript to the letter grade specified on the original paperwork. Specially accredited programs may have specific progression criteria where a student cannot progress in their program with an incomplete on their transcript.

Students with an Incomplete are temporarily ineligible for semester or graduation honors. Upon conversion of the Incomplete to a letter grade, students may retroactively receive semester or graduation honors, and such recognition shall appear on the transcript, provided the student has earned the required GPA.

Repeating a Course

No course may be repeated for credit more than twice without approval. The highest grade received will be used in calculating the student's cumulative grade point average. This does not apply to those courses that are designed to be repeated for additional credit. Programs with professional and regulatory standards may have different requirements for repeating courses in which case, those standards shall be applied.

Auditing a Course

Used for students not wishing to be awarded college credit for a course taken. This status allows students to participate in class activities without being required to meet the examination or assessment requirements of the course. Students may ask to have coursework critiqued, but audited courses do not earn a grade and faculty members are not required to grade an auditor's coursework. Full tuition and fees are charged for courses audited. Students must be informed that State and Federal regulations prohibit the College from awarding aid for audited courses. A student who wishes to change from credit to audit status must request this within the first 20% of a term in which the course is offered, using such forms and procedures as the college may prescribe. Audit deadlines for terms will be published in term calendars. Students auditing a course may not change to credit status. Students may only audit the same course two times, and any

additional requests to audit must be approved by the campus Dean of Faculty or campus dean responsible for faculty affairs. Certain degrees or certificates, such as selective admissions programs, may not allow for courses to be converted to audit.

Calculation of GPA

The grade point average (GPA) is a composite score used to determine the relative standing of a student, either for a single semester or for the total number of semesters at the college. Grade points are calculated by multiplying the numerical weight allocated to each grade by the semester hours of credit assigned to each course. The GPA is determined by dividing the total number of grade points by the total number of semester hours attempted by the student.

Academic Standing

Please note: *The current academic standing policy is in effect until the end of Fall 2023. The revised academic standing policy will become effective Spring 2024.*

Satisfactory Progress

Students are required to maintain satisfactory academic progress during their enrollment at the college. To remain eligible for continued enrollment, a student must maintain a cumulative grade point average (GPA) equal to or above the minimum stated in the criteria listed below. A student's combined academic standing is determined based on cumulative credit hours, overall GPA, and progress evaluation.

The criteria for continued enrollment are different than the criteria for Financial Aid Eligibility. Financial Aid standards are described in the Financial Aid Handbook.

Academic Standing (Effective until the end of Fall 2023)

The Connecticut State Community College Academic Standing Policy is explicit to a student's academic performance and does not address Financial Aid standing. Financial aid students must meet the standards provided under the Satisfactory Academic Progress (SAP) policy, which is separate from this Academic Standing Policy. Academic Standing is designed to help ensure students who fall below a 2.0 cumulative grade point average (GPA) are provided with structured levels of support and advising to guide students towards academic success.

Determination of Good Standing:

Any student whose cumulative grade point average GPA is 2.0 or higher is considered in good academic standing. Students in good academic standing may register for up to 19 credits in a regular (fall or spring) term.

Academic Warning

Students whose cumulative (GPA) falls below a 2.0 at the conclusion of the semester, including winter and summer intercessions, will be placed on First Level Academic Warning. Students shall return to good standing when their cumulative GPA reaches 2.0 or higher. Academic Standing includes three progressive levels of warning and suspension, each with varying credit caps. Students whose cumulative GPA falls below a 2.0 cumulative GPA are notified in writing of their academic standing. Students are required to work with their Guided Pathway advisor and in collaboration with their faculty advisor as needed to create an individualized plan to increase their cumulative GPAs.

Students who have attempted more than 31 credits toward an associate degree or 13 or more credits toward a certificate program and have been on the first three levels of Academic Warning shall be placed on Academic Suspension and will not be permitted to enroll in the subsequent fall or spring semester.

The grid outlines each level of Academic Standing and the maximum number of credits permissible.

Academic Standing Levels	Attempted Credits	Semester Credit Cap	Summer Credit Cap	Winter Credit Cap
Good Academic Standing	Any	19	12	7

First Level Academic Warning	Any	13	9	3
Second Level Academic Warning	Any	10	7	0
Third Level Academic Warning	Any	7	6	0
Academic Suspension	31 or more AS 13 or more Certificate	0	0	0

Credit Cap Appeals

Credit Cap is the maximum number of credits a student may register for in a semester. Students with extenuating circumstances may request Credit Caps be increased. Credit Cap increases up to 2.0 credits can be granted by the Guided Pathways or Faculty Advisor. Students seeking a 3.0 credit increase or higher may submit a Credit Cap Appeal to the Dean of Students and Faculty or the Dean of Academic Affairs, or their respective designee at any level of Academic Warning.

Re-Enrollment Following Academic Suspension

In the first semester following Academic Suspension, students may enroll in up to 7 credits. Credit Caps shall automatically continue each semester until a 2.0 cumulative GPA is achieved

Academic Suspension Appeals

Students placed on Academic Suspension may appeal the requirement to take a one semester leave of absence through the Dean of Students and Faculty or the Dean of Academic Affairs, or their respective designee. Decisions will be issued in writing within 10 business days of receipt. If an initial appeal is denied, the student may request a second appeal in writing requesting a hearing with the Campus Academic Standing Appeals Committee. The committee's decision will be communicated in writing, and their decision will be final. Students on Academic Suspension may not appeal summer or winter intercession credit caps.

Students on Academic Suspension who are granted an appeal are placed upon Third Level Academic Warning for their appeal semester. If students fail to earn a 2.0 semester GPA during their appeal semester, they will be returned to Academic Suspension and will be required to take a one semester leave from the college. If the student's semester GPA after their return semester is above 2.0, but the student's cumulative GPA after their return semester is still below 2.0, the appeal will be continued, and the student will remain on Third Academic Warning.

Readmission

Students who wish to return after an academic suspension should schedule an appointment with their Guided Pathways Advisor begin that process.

Academic Fresh Start

The Academic Fresh Start Program is a one-time opportunity for eligible students, returning to college after an absence of one or more years (two standard semesters), to refresh their grade point average (GPA). A student must be re-enrolling with a cumulative GPA below 2.00 to qualify for this program.

All grades previously earned remain on the student's transcript and the student retains credit for courses with a grade of "C-minus" or above, including "P" (Pass), "CR" (Credit), and "CRT" (Credit Transfer). The courses for which Academic Fresh Start is invoked include a transcript symbol (^) indicating that the policy has been applied to the student's academic history.

The Academic Fresh Start Program can only be used once, including at previous Connecticut Community College campuses, and does not apply to any completed degree or certificate. Fresh Start is exclusively for academic purposes and is not related to any/all Financial Aid guidelines regarding previous credits enrolled. Students should consult with the Financial Aid Office for such details.

Once approved as a candidate for the Fresh Start, a student must complete a minimum of 9 credits with grades of "C" or better for the Fresh Start to be applied to the entire academic history prior to the application term.

The Enrollment Services Office will document the semester of implementation and notify the student. The student is responsible for notifying the Enrollment Services Office once they have completed the required 9 credits so that the pending Fresh Start can be applied to the student's academic record.

Academic Standing (Effective Spring 2024)

Please note: *This revised academic standing policy will become effective Spring 2024.*

The Connecticut State Community College Academic Standing Policy is explicit to a student's academic performance and does not address Financial Aid standing. Financial aid students must meet the standards provided under the Satisfactory Academic Progress (SAP) policy, which is separate from this Academic Standing Policy. Academic Standing is designed to help ensure students who fall below a 2.0 cumulative grade point average (GPA) are provided with structured levels of support and advising to guide students towards academic success.

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The Enrollment Services Office will document the semester of implementation and notify the student. The student is responsible for notifying the Enrollment Services Office once they have completed the required 9 credits so that the pending Fresh Start can be applied to the student's academic record.

Change of Major

Students will find the "Change of Major" form through [my.CTState.edu](https://my.ctstate.edu), the information portal for CT State students, faculty, and staff. Students can access a variety of enrollment forms, as well as the status of financial aid, search for courses, register for classes, access student orientation, access college email, complete coursework in Blackboard, manage college finances, with one single sign-on.

Graduation Credit Variance Procedure for Legacy Students

Purpose:

To hold harmless all students who complete legacy Connecticut community college degree or certificate requirements but, due to credit discrepancies solely created through the curriculum alignment process, are missing one or more credits to graduate from an equivalent CT State Community College ("CT State") degree or certificate program.

Conditions:

For any student who CT State has determined meets all requirements of a legacy Connecticut community college degree or certificate program, but does not meet the minimum CT State credit threshold required for the equivalent aligned degree or certificate, the following criteria must be met prior to the awarding of the credential:

- The student was previously enrolled in an equivalent degree or certificate program at a legacy Connecticut community college
- The student meets the minimum number of credits required for graduation from the legacy degree or certificate program
- The student has met the required outcomes of the legacy degree or certificate program
- The minimum number of credits completed for a degree equals 60 credits or more
- The student has met all other CT State Community College requirements for graduation

Selective admissions or specialized accreditation programs will be required to follow accrediting agency standards regarding credit variances.

Academic Recognition

Dean's List

Each semester, the College recognizes students for superior academic performance based on the following criteria.

- 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 Incomplete shall make the student ineligible for Dean's List recognition that semester. Upon completion of the coursework for which the Incomplete was granted, the student may petition the Dean of Faculty and Students within 30 days of the posting of the final grade, to have the Dean's List retroactively recognized on the student's official transcript.
- Students who withdraw from courses may be eligible for the Dean's List, however, if the withdrawal causes them to fall below 12 credits for that term, they will not be eligible for full-time Dean's List for that term.
- Students who are in academic probationary status or have a Dean's hold due to academic integrity issues are not eligible for Dean's List recognition, even if their semester grade point average might otherwise make them eligible.

Graduation Honors

Students with exemplary academic performance shall be recognized at graduation with the following designations, in Latin:

Summa Cum Laude for students with a 3.9 - 4.0 grade point average

Magna Cum Laude for students with a 3.7 - 3.89 grade point average

Cum Laude with a 3.4 - 3.69 grade point average

All graduation honors are recorded on the student's academic transcript. Students with an Incomplete grade on their transcript at the time of graduation may become eligible retroactively for graduation honors upon completion of the course requirements. Such recognition shall appear on the transcript, provided that the student has earned the required grade point average.

Earning Two Associate Degrees

A student may earn a second Associate Degree under the following circumstances:

- All program requirements are met for both degrees
- The residency requirement of one-quarter (25%) of the complete degree is met for any degree earned at Connecticut State Community College
- The second degree includes a minimum of 15 credits which are different from the first degree
- If both degrees are to be earned at Connecticut State Community College, the student has earned a minimum of 75 credits and has met the residency requirement within each degree.

Completion of the requirements of an additional program option under the same parent degree does not constitute a different degree.

Graduation

Requirements

Candidates for an Associate Degree at Connecticut State Community College shall have met the following successfully completed the following requirements:

- Minimum of 60 credits*
- Min of 25% of credits completed at CT State
- Overall GPA 2.0*
- Completion of 21-credit General Education Core
- Completion of program requirements as proscribed by the department

*These requirements are college-wide minimums. Programs with specialized accreditations, endorsements or other standards may have additional graduation requirements which are described in the College Catalog or Program Handbook.

Graduation Application

Students will find the "Graduation Application" form through [my.CTState.edu](https://my.ctstate.edu), the information portal for CT State students, faculty, and staff. Students can access a variety of enrollment forms, as well as the status of financial aid, search for courses, register for classes, access student orientation, access college email, complete coursework in Blackboard and manage college finances, with one single sign-on. This form can also be obtained through any campus-based enrollment offices or through the Guided Pathways advisors.

SCHOOLS OF STUDY

Programs at Connecticut State Community College are organized into six schools in which students can study.

School of Arts and Humanities

Creative arts and humanities programs combine curiosity, expression, and passion together in growing career fields with many opportunities for the future. A degree from the School of Arts and Humanities at CT State builds crucial skills such as critical thinking, creativity, communication, and cross-cultural understanding.

Our students gain the tools to cultivate a deep understanding of different cultures and cultural differences - historically, geographically, and artistically. Arts and humanities students are distinct in their ability to bring innovative solutions to novel challenges.

The School of Arts and Humanities offers a rich array of courses in Art and Design, Communication, Digital and Media Production, English, Languages and Culture, and Performing Arts, which serves to guide and educate students to reflect critically on the role of the humanities in their personal and professional growth; to connect students to the rich cultural mosaic of Connecticut, the region, and the world; and to foster a vibrant environment of artistic and scholarly activities for the college and surrounding communities. Students will study both the impact of change on our culture, and the timeless perspectives that have shaped our lives and thought.

For individuals with many strengths and interests, CT State Community College offers focused associate degree or certificate programs leading to creative and productive careers, and provides opportunities for hands-on, real-world engagement. Pathway programs are available in several majors, allowing students to gain course credits that directly transfer to a bachelor's degree program at Connecticut colleges and universities.

School of Business and Hospitality

There is a growing need for trained employees in commerce, health care, hospitality, government, international business, nonprofit organizations, paralegal, and more. Businesses rely on these employees' knowledge of critical business elements and principles to be successful.

At CT State Community College, students learn with real-world application and experience in current business practices. Our programs equip students with the skills they need to learn the value of information and technology in a variety of business environments. From information management to electronic health records, our programs cover a variety of environments where students can apply highly portable tools and approaches to solving complex problems.

For those interested in hospitality, our graduates have gone on to own bakeries; serve as chefs and managers in both formal and informal restaurants; work in foodservice settings in health care, business, and industry; work in hotels of all sizes; and hold management positions in many areas of the hospitality field.

By earning an associate degree or certificate in a business-related program, students can apply skills to a variety of industries after graduation or transition a path to transfer to a four-year college or university for those wishing to continue their studies.

School of Engineering and Technology

CT State Community College's Engineering and Technology programs emphasize how users interact with technology, the complexity of an information-rich society, and the impact of information in our lives. We pride ourselves in offering rich learning environments and pedagogically sound learning experiences.

Many of the engineering and technology associate degree programs at CT State have specialized curriculums to begin technology or engineering technology studies and transition to earning a four-year, bachelor's degree in engineering or technology.

Students can also put their strengths to work and gain the skills needed to move quickly into entry-level manufacturing jobs. Manufacturing is resurging in Connecticut and beyond, and CT State Community College's manufacturing degree and certificate programs enhance skills needed to work in many technical fields. Through attrition and the need for a highly skilled workforce,

manufacturers are facing a shortage of skilled workers. This could be an opportunity start a career doing exciting work at a higher-than-average rate of pay with full fringe benefits.

School of Nursing and Health Careers

To support an increasing number of health-related careers, CT State Community College offers many academic options for prospective students. Health career professionals help evaluate, treat, and prevent illnesses by collaborating in a variety of health fields, and individuals with many different skill levels can be successful in these areas. While some professions involve working directly with patients, others work behind the scenes, playing important roles in the health care field.

Students who enjoy helping others, hands-on or detailed work, problem solving, or have an interest in a medical-related field, can find an affordable and flexible career solution by earning an associate degree or certificate in one of many allied health fields. Allied health consists of a group of health professionals who work towards the diagnosis and treatment of diseases. These professionals also promote disease prevention and wellness, and work to support various health care systems.

For those students interested in a career in nursing, the Connecticut Community College Nursing Program (CT-CCNP) is an innovative associate degree program of study offered at six CT State campuses. The program serves a diverse population of students, offers excellent clinical sites, and has a thirty plus year record of proven success.

For those students who are interested in other health careers such as laboratory medicine, occupational and physical therapy, respiratory care and more, the CT State Community College offers degrees as certificates, and Associate degree programs which, in many cases, can be built upon and lead to a higher degree at our other four-year institutions.

School of Science and Mathematics

The School of Science and Mathematics at CT State Community College offer engaging learning opportunities in science and mathematics for students with a diverse range of academic and career interests. These learning opportunities emphasize the acquisition of mathematical and scientific knowledge as well as the development of quantitative and scientific reasoning skills.

By engaging in the study of science and mathematics, students experience how these academic areas are integral and applicable to their lives. Students learn how to apply science to solve problems through lab experiences, research, and course work and to think collaboratively and critically. Faculty in both science and mathematics prepare students for future success in technical and non-technical career pathways, developing written, oral, and graphical communication skills. They learn new concepts and techniques as required for continuing professional development and prepare to take industry-based certification exams.

Whether you are looking for more immediate employment or plan on transferring to a four-year college or university, we have the programs and courses to match your interests and schedule.

School of Social and Behavioral Sciences

The Social and Behavioral Sciences represent areas of learning that help us to understand more deeply the cultural, historical, social, political, and psychological forces that shape our lives. Courses include introductory and secondary-level offerings in anthropology, communications, history, humanities, languages, political science, psychology, sociology, and more.

CT State Community College's Social and Behavioral Science programs combine skills and passion toward a career that's exciting and fulfilling and helps make a real difference in people's lives. Programs allow students to build skills and qualifications for existing careers, to seek a new and exciting career, or to aspire to be a leader in criminal justice, early childhood education, human services, political science, psychology, social work, and more.

Curriculums are designed for those seeking continuing education or to further enhance skills and credentials, as well as for those who are planning to transfer to a bachelor's degree program. Students learn about the challenges and the rewards of working in the field while gaining practical hands-on experience through class experiences and diverse internships.

ACADEMIC ENRICHMENT & SUPPORT

College & Career Success

Please consult the complete College & Career Success Policy for additional detail.

The Board of Regents for Higher Education directed the Connecticut State Community College, in conjunction with the CSCU System Office through the leadership of the CSCU Provost and Senior Vice President for Academic and Student Affairs, to:

- Require all Connecticut State Community College programs of study to include the three (3) credit CCS 1001 which is focused on college success and career exploration.
- Require all degree-seeking students to enroll in CCS 1001 within their first nine (9) credits.
- Ensure that CCS 1001 includes a component that meets the general education core diversity requirement, with the acknowledgement that diversity topics should ideally be embedded throughout the General Education core and across the curriculum.
- Ensure that CCS 1001 fulfills one of the general education core competencies.
- Make recommendations regarding which programs of study might add CCS 1001 as an exception to normalization, in accordance with BOR policy.
- Provide guidance regarding which circumstances allow a student to request exemption from taking CCS 1001 with final decisions on exemptions made by campus academic leadership.
- Ensure that CCS 1001 is regularly updated to align with the latest research and evidence from the field regarding successful first year experience courses, noting that current research demonstrates that the most successful first year experience courses use pedagogies that promote learning-for-application, use equity-minded pedagogies and inclusive formats, give instructors the tools and structural supports to teach effectively, and substantively link the course to other academic courses to improve transfer of learning.
- Provide administrative oversight of CCS 1001 to ensure consistency of delivery and outcomes.

Student Exemption for CCS 1001 effective Fall 2023

The exemption only applies to two student populations: **LEGACY** and **TRANSFER-IN** students. If a student is eligible for an exemption, the student can meet with their advisor and/or Program Coordinator for substitution guidance. Aside from these two student populations, all students will be required to take CCS 1001 starting in Fall 2023. Please see the exemption document for full details.

Legacy Students:

A "legacy student" is a student who was enrolled in a Connecticut community college prior to Fall 2023 but did not complete a degree program, and is now enrolling in a CT State Community College degree program.

If a student has completed 24 or more college-level credits and has not taken an equivalent course (outlined in the exemption), a student will be eligible* for a course substitution.

If a student has completed any of the outlined 1 or 1.5 credit courses (as listed in the exemption) at the CT Community Colleges, the CCS 1001 requirement may be waived, and the student will be eligible* for a course substitution.

If a student has completed *CCS 101 College & Career Success* at any of the colleges prior to Fall 2023, that course will fulfill the CCS 1001 requirement in CT State programs.

Transfer-In Students:

If a student has completed an equivalent 3 credit course at an accredited college or university with a C- or higher, that course will be transferred in and will fulfill the CCS 1001 requirement.

If a student has NOT completed an equivalent 3 credit course at an accredited college or university but has 24 or more transferable credits with a C- or higher, the student will be eligible* for a course substitution of CCS 1001.

**Please note that eligibility does not mean that a student is required to seek a substitution for CCS 1001. In many cases, a student will benefit from taking CCS 1001 and this option needs to be discussed through the advising process.*

Honors Programming

Honors Programs

CT State provides students with the opportunity to apply for acceptance into the Honors Program based at multiple campuses. The Honors Program offers academic enrichment to students' associate degree program. Honors Program students hone the leadership, academic, and professional skills necessary for transfer and future academic and career success.

Honors students take honors level general education courses (e.g., Composition Honors, General Psychology Honors, U.S. History Honors) and honors seminars with their Honors Program cohort, and enjoy close faculty mentoring, special programming, and independent study and leadership opportunities.

Additionally, the Business Administration program offers an honors degree. This program focuses on the business core as well as an emphasis on critical Math curricula. A minimum GPA of 3.4 is required for this option.

Honors Courses

CT State offers students the opportunity to apply to take an honors course (e.g., Composition Honors, General Psychology Honors, U.S. History Honors) without being a member of the Honors Program. Honors courses can be found in the course catalog with the designation "H" after the course code (e.g. ENG 1010H - Composition Honors). Entry into these classes varies and is noted in the Prerequisite description and involve additional coursework.

Academic Advising

Academic advising assists students in establishing and achieving their academic, career, and transfer goals. CT State students have access to both trained professional advisors (Guided Pathways Advisors) as well as faculty experts (Faculty Advisors). Students should meet with an advisor at least once per semester and more often as needed.

Advising appointments are available in-person and virtually. If students have questions or need assistance identifying or connecting with their Guided Pathways or Faculty Advisor, please follow the link below to connect with your campus advising office.

Faculty Advising

All full-time faculty engage in academic advising and provide advising to students within their specific program(s) or discipline. Faculty are the foremost experts on their specific discipline or program and play an integral part in the student's academic, career, and transfer planning. Students should connect with their assigned faculty advisor to discuss program options and details about the structure, outcomes, and specifics of the degree or certificate program.

Guided Pathways Advising

Mission Statement

All community college students, from initial registration to completion, are supported by Guided Pathways Advisors to establish academic and career goals, receive proactive and individualized academic and holistic supports that result in the timely and equitable completion of credentials that lead to employment, transfer, and family sustainable wages.

Vision

Guided Pathways Advising is a dynamic, student-centered, holistic approach grounded in student development and learning. Guided Pathways Advisors align advising practices with the diverse and unique needs of each individual student in their caseload. GPAs advise, advocate, mentor, support, and coach their caseload to reach their individual goals.

Guiding Principles

- Students receive deliberate and personalized supports necessary to contribute to their success.
- Faculty advising is central to the GPA model.
- Guided Pathways Advising is grounded in institutional collaboration.

- Commitment to bold and disruptive change through the advancement of equitable advising practices.
- Guided Pathways Advisors pledge to empower students and staff to advance racial, social, and economic justice while identifying and responding to student barriers.
- Evidence-based research informs advising practice.
- Data is collected, disaggregated, analyzed, and reported in a transparent manner.
- Student voices are amplified by honoring lived experiences and by highlighting their unique assets to develop meaningful advising relationships.
- Ongoing professional learning and individual staff development is fundamental to the model.

Commitment of GP Leadership

GP Advising leadership is committed to the Holistic Case Management Advising policy. This will be achieved through the strategic relationship development with students, collaboration with internal and external stakeholders, and utilization of technology to enhance communication and collaboration. For more information, please access the Holistic Case Management Advising (HCMA) policy.

GENERAL EDUCATION CORE

Overview

Students earning an Associates degree are required to take courses to fulfill the college-wide requirements of the General Education Core Curriculum.

A common general education curriculum contributes to the development of an educated person by exposing students to multiple disciplines and multiple methods of inquiry in broad foundational courses in the arts and humanities, social and behavioral sciences, physical and natural sciences, and mathematics; cultivates student success by helping students acquire skills and knowledge - such as oral/written communication, information literacy, and critical thinking skills - to further their education and thrive in a complex, diverse, and changing world. A common general education curriculum also permits students to change majors with minimal loss of credit or disruption in progress to degree completion and aids in seamless transfer and is aligned with the general education component of all Transfer and Articulation Policy (TAP) transfer degrees.

Each General Education course will:

1. Ask students to demonstrate knowledge of the fundamental concepts, theories, primary works, skills, or ideas within the specific category discipline area.
2. Ask students to interpret and apply introductory methods of inquiry and analysis in the discipline category.
3. Have as its main objective, and 2/3 of its focus, the category content and/or skills.
4. Be vetted in only one General Education category.
5. Be vetted and approved by an appropriate academic discipline group.

Upon completion of the General Education Core Curriculum, students will be able to demonstrate beginning competency in communication, critical thinking, and the foundational knowledge and methods of inquiry in multiple disciplines.

The Connecticut State Community College General Education Core is comprised of the following course or categories:

Course/Category	Credits
ENG 1010 - Composition	3
MATH 1000 or higher - <i>Required course varies by program</i> or Quantitative Reasoning course (QUAX) for CSCU Transfer Pathway Programs	3-4
Arts & Humanities Gen Ed Courses ARHX <i>Recommend course varies by program</i>	3
Choose one from: • Scientific Reasoning Gen Ed Courses SCRX • Scientific Knowledge Gen Ed Courses SCKX <i>Recommended course varies by program</i>	3-4 <i>lab optional in some programs</i>
Choose one from: • Social/Behavioral Science Gen Ed Courses SBSX • Historical Knowledge Gen Ed Courses HISX <i>Recommended course varies by program</i>	3
Choose one from: • Oral Communication Gen Ed Courses ORAX • Written Communication II Gen Ed Courses WRIX <i>Recommended course varies by program</i>	3

Course/Category	Credits
Choose one from: • Continued Learning/Information Literacy Gen Ed Courses CLIX • Scientific Knowledge Gen Ed Courses SCKX • Scientific Reasoning Gen Ed Courses SCRX • Social/Behavioral Science Gen Ed Courses SBSX • Historical Knowledge Gen Ed Courses HISX • Written Communication II Gen Ed Courses WRIX • Oral Communication Gen Ed Courses ORAX This is a program-designated course fulfilled in most cases by CCS 1001 - College & Career Success	3-4
<i>Students must take at least one course in the Gen Ed core which meets a diversity requirement.</i>	Total: 21-25

CSCU POLICIES

Board of Regents Policies

Policies of the CT Board of Regents can be found here <https://www.ct.edu/hr/policies#bor>

Policies Include:

- Academic Affairs
- Student Affairs
- Finance, Facilities and Administration
- Human Resources
- General Board Policy
- System Organization and Governance

Community College Policies

Policies for the CT Community Colleges can be found here <https://www.ct.edu/hr/policies#ccc>

Policies Include:

- Americans with Disabilities Act (ADA) Procedures
- College Closings, Delayed Openings, Early Release
- Financial Aid Code of Conduct
- IT Policies, Standards & Procedures
- Sexual Harassment Policy
- Violence Prevention and Response Policy
- Connecticut State College and Universities (CSCU) Procurement Manual
- Violence in the Workplace

Confidentiality of 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. Those rights are fully enumerated in the CSCU System Policy 2.2.

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Automotive Technology: Automotive Management, AS (AUTO-AS-AM).....	60
Automotive Technology: Comprehensive Automotive Repair and Service (CARS) Certificate (AUTO-CC-CAR).....	62
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Automotive Technology: General Auto Service Certificate (AUTO-CC-GAS).....	66
Automotive Technology: General Motors Automotive Service Certificate (AUTO-CC-GMS).....	67
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Accounting Certificate (ACCT-CC)

The Accounting certificate program is designed for students who are interested in specialized accounting coursework and/or those who already have a bachelor's degree and would like to change careers. This program also serves individuals currently interested in entry level positions in the accounting field. Credits earned can be used for transfer into the Associate in Science Accounting Degree.

Learning Outcomes:

Students who complete the Accounting Certificate will:

- Understand, create, and analyze basic financial statements and management reports
- Demonstrate an understanding of tax law as it applies to the individual and business world
- Apply computer skills to accounting transactions.

Required Courses

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

ACCT 1250 - Accounting Applications I *Credits: 3*

ACCT 2410 - Federal Taxes I *Credits: 3*

Business/Accounting Electives - select 2 courses from: ACCT, BENT, BFIN, BMGT BMKT, or BUSN *Credits: 6*

Total Credits: 18

Accounting, AS (ACCT-AS)

The Accounting associate degree program prepares students for employment as bookkeepers, and accounts receivable/payable and payroll associates.

Graduates will be able to maintain complete sets of accounting records and prepare financial statements and individual tax returns.

Students have the opportunity to participate in the Volunteer Income Tax Assistance (VITA) program, in which they gain practical experience in the preparation of tax returns. Students interested in transferring to earn a bachelor's degree should enroll in the Business Studies A.A. Transfer degree program or in the Business Administration A.S. program.

Note: Students should meet with a faculty advisor to plan their program of study.

Learning Outcomes:

Upon successful completion of all accounting degree program requirements, graduates will

- Demonstrate relevant content knowledge in required core business disciplines (accounting, business law, management and organizational behavior, and marketing) and apply concepts in problem solving through identifying and evaluating alternative solutions and offering a well-supported conclusion.
- Recognize proper business acumen and decorum in professional interactions; demonstrate appropriate interpersonal communication and presentation skills and demeanor; demonstrate the ability to use presentation and team interpersonal skills effectively in class presentations.
- Recognize and respond thoughtfully to situations that present ethical dilemma, demonstrating the ability to identify ethical dilemmas and social responsibilities of business, an ability to confront ethical dilemmas, and apply ethical principles to business situations using concepts learned.
- Apply accounting concepts and critical thinking skills to make sound financial decisions.
- Demonstrate an understanding of the interrelationships between accounting and business courses.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (Pending Spring 2023 Shared Governance Approval)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BUSN 2100 - Business Communications *Credits: 3*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

ACCT 1250 - Accounting Applications I *Credits: 3*

ACCT 2710 - Intermediate Accounting I *Credits: 3*

ACCT 2720 - Intermediate Accounting II *Credits: 3*

ACCT 2410 - Federal Taxes I *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3*

OR BFIN 1100 - Personal Finance *Credits: 3*

BUSN 1100 - Introduction to Business *Credits: 3*

OR BENT 2180 - Entrepreneurship *Credits: 3*

BUSN 2340 - Legal Environment of Business *Credits: 3*

OR BUSN 2310 - Business Law I *Credits: 3*

Business Electives - Select 3 courses from ACCT, BENT, BMGT, BFIN, BUSN, BMKT, MATH 1200, ECON *Credits: 9*

Total Credits: 60-62

Archaeology Certificate (ARCL-CC)

This program is designed to train the avocational archaeologist and students pursuing archaeology as a career. Extensive field work, directed toward the rescue and preservation of local prehistory and history, is integral to the program. Successful completion of the certificate may enable the student to participate effectively in archaeological excavations world-wide.

Learning Outcomes

- Define archaeology and explain its relationship to anthropology and history
- Determine and employ methods to find, test, excavate, analyze, interpret, and report on archeological sites
- Acquire skills and knowledge to become a competent archeologist
- Identify major archeological periods and cultural traits, lifeways, and processes in various world regions

The program was designed for those having either an avocational or professional interest in studying archaeology. The program provides an educational opportunity that includes archaeological fieldwork and analysis in an environment conducive to a broad population of traditional and non- traditional students.

Required Courses

ANTH 1201 - Introduction to Archaeology *Credits: 3*

ANTH 2203 - Advanced Techniques in Archeology *Credits: 4*

Electives

Choose 3 approved courses from list below, 2 must be Anthropology courses *Credits: 9-10*

- ANTH 1005 - Introduction to Cultural Anthropology *Credits: 3*
- ANTH 1006 - Introduction to Biological Anthropology *Credits: 3*
- ANTH 1007 - Introduction to Forensic Anthropology *Credits: 3*
- ANTH 1301 - World Prehistory *Credits: 3*
- ANTH 2209 - Historical Archeology *Credits: 3*
- ANTH 2400 - Native Cultures of the Americas *Credits: 3*
- HIST 1015 - US History to 1877 *Credits: 3*
- GEOL 1200 - Introduction to Physical Geology *Credits: 4*
- CSA 1110 - Introduction to Software Applications *Credits: 3*
- SCI 2260 - Introduction to Forensic Science *Credits: 3*
- **OR** CJS 2260 - Introduction to Forensic Science *Credits: 3*
- MATH 1200 - Statistics I *Credits: 3*

Total Credits: 16-17

Architecture: Architectural Design Technology, AS (ARDT-AS)

The Architectural Design Technology program extends opportunities for those interested in the design and construction of the built environment, preparing students for transfer into baccalaureate and professional-degree architecture programs or for entry-level technical positions in architecture, engineering or construction firms.

The program builds mastery of valuable skill-sets, establishing techniques in traditional design and drawing that build a foundation for state-of-the-art digital design and modeling, reinforced by courses that form the technical core consisting of blueprint reading, construction materials, codes and regulations, and typical project documentation. The course flow guides students through a sequence of architecture courses that explore creativity, exercise the design process and problem-solving skills, and instills the values of sustainable and responsible development of the built environment.

Upon completion, students will have built a portfolio of work useful for transfer or to pursue an entry-level technical position in an architecture, engineering or construction firm; municipal building and planning offices; or the transportation, utility, and construction material industries.

Learning Outcomes:

- Understand the history of the built environment and appraise geographic adaptation when considering modern solutions to: natural resource utilization; sustainable harvest, refinement and transport of construction materials; and performance of designs and systems, accounting for climate change.
- Develop a self-reflective design process that considers alternative solutions validated by sound research, evaluation, and synthesis of a wide range of variables.
- Utilize traditional and emerging digital media for two- and three-dimensional graphic representation to develop, refine, and communicate the architectural design process and implement written industry documentation used to convey typical project information.
- Demonstrate knowledge of building systems as integrated into the design process, informing decisions on materials, assemblies, and life safety aspects.
- Perform and communicate effectively as a contributing individual or team member.
- Appreciate the importance of lifelong learning and continuous improvement associated with professional, ethical, and social responsibilities.

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*
 ARCH 1002 - Architecture of the World *Credits: 3*
 OR ARTH 1013 - Architecture of the World *Credits: 3*
 PHYS 1201 - General Physics I *Credits: 4*
 Social Science Elective *Credits: 3*
 COMM 1301 - Public Speaking *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (38 credits)

ARCH 1005 - Architecture Fundamentals I *Credits: 4*
 ARCH 1008 - Construction Materials & Methods *Credits: 3*
 ARCH 2005 - Architecture Fundamentals II *Credits: 4*
 ARCH 2029 - Structures *Credits: 3*
 ARCH 2015 - Construction Documents *Credits: 3*
 ARCH 2020 - Architectural Design I *Credits: 4*
 ARCH 2030 - CAD 3D Architectural Parametric *Credits: 4*
 ARCH 2025 - Architectural Design II *Credits: 4*
 ARCH 2040 - Environmental Systems *Credits: 3*
 Business Elective or Internship *Credits: 3*
 Elective - Open Elective *Credits: 3*
 ARCH Elective (3 Credits)

Choose one ARCH course

- ARCH 1010 - Introduction to Building Physics & Sustainability *Credits: 3*

- ARCH 1011 - Building Codes & Ordinances *Credits: 3*
- ARCH 1012 - Introduction to Geographic Information Systems *Credits: 3*
- ARCH 2010 - Site Design *Credits: 3*
- CAD 1140 - Architectural CAD *Credits: 3*
- CAD 2204 - CAD 3D Architectural *Credits: 3*

Total Credits: 63

Architecture: Construction Technology Certificate (CTEC-CC)

The Construction Technology certificate program extends opportunities to students desiring a career in the construction industry by preparing them with essential entry-level skills. This two-semester certificate program includes a broad range of courses required for basic performance in offices which support the construction industry, including construction companies, architecture, and engineering firms. Entry level knowledge and competencies in drafting, CAD, construction materials, documents & codes, and project management principles, prepare graduates with industry entry-level skills along with being prepared to transfer into associate or bachelor's degree programs in construction management.

Learning Outcomes:

- Utilize traditional and emerging digital media for 2- and 3-dimensional graphic representation to develop, refine, and communicate construction graphics and implement written industry documentation used to convey typical project information.
- Demonstrate knowledge of building systems including materials, assemblies, mechanical systems, and life safety features.
- Practice execution of industry forms and documents, code and regulation research, and preparation of typical industry submittals.
- Demonstrate and apply construction management skills including site logistics, critical path, procurement, scheduling, and equipment & labor.
- Perform and communicate effectively as a contributing individual or team member and understand the importance of workplace safety and ethics, and effective teamwork.
- Appreciate the value of life-long learning and intellectual growth as an integral part of a career in construction technology due to ever-evolving components and systems.

Required Courses

ARCH 1002 - Architecture of the World *Credits: 3*
ARCH 1005 - Architecture Fundamentals I *Credits: 4*
ARCH 1008 - Construction Materials & Methods *Credits: 3*
ARCH 1011 - Building Codes & Ordinances *Credits: 3*
ARCH 1129 - Fundamentals of Construction Management *Credits: 3*
ARCH 2015 - Construction Documents *Credits: 3*
ARCH 2229 - Construction Estimating *Credits: 3*
ARCH 2030 - CAD 3D Architectural Parametric *Credits: 4*
ARCH 2040 - Environmental Systems *Credits: 3*

Total Credits: 29

Art Studies - TAP/CSCU Transfer Degree, AA (ARTT-AA-TAP)

This program is a CSCU Pathway Transfer Degree in Visual Art, A.A. that is intended for Connecticut Community College students to transfer to Connecticut State Universities (Southern CT State University, Central CT State University, Eastern State University, Western State University) and Charter Oak State College without either losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline.

Learning Outcomes:

- **Technical Competency**
Introduce students to traditional and contemporary visual art media, methods, materials, and processes
- **Communication Competency**
Students begin to learn to communicate ideas about the visual arts through oral, visual and written expression, using appropriate terminology.
- **Contextual Analysis**
Students will come to understand, discuss and critique diverse contemporary and historical perspectives in visual art
- **Conceptual Analysis**
Students are introduced to how the elements and principles of art and design transform ideas into visual expression
- **Professional Practice**
Students are introduced to professional, ethical, and collaborative behaviors as they relate to a variety of career and studio environments

Framework Courses (30-33 credits)

ENG 1010 - Composition *Credits: 3*
 Elective QUAX - Quantitative Reasoning Course *Credits: 3-4*
 ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*
 Elective SCRX - Scientific Reasoning Course *Credits: 3-4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective WRIX - Written Communication II Course *Credits: 3*
 Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30-34 credits)

ART 1110 - Drawing I *Credits: 3*
 ARTH 1002 - Global Art History 1500 CE to present *Credits: 3*
 ART 1210 - Two-Dimensional Design *Credits: 3*
 OR ART 1220 - Three-Dimensional Design *Credits: 3*
 OR ART 1310 - Sculpture I *Credits: 3*

Restricted Electives

Select 2- 3 courses from the list below with no more than one course from a single group. *Credits- 6-9*

- ART 1120 - Drawing II *Credits: 3*
- ART 1770 - Printmaking I *Credits: 3*
- ART 1250 - Color Theory *Credits: 3*
- **OR** ART 1510 - Painting I *Credits: 3*
- GRA 1501 - Graphic Design I *Credits: 3*
- **OR** GRA 2300 - Digital Imaging I *Credits: 3*
- **OR** DGA 1101 - Introduction to Computer Graphics *Credits: 3*
- **OR** ART 2810 - Digital Painting & Drawing *Credits: 3*
- ART 1310 - Sculpture I *Credits: 3*
- **OR** ART 1610 - Ceramics I *Credits: 3*
- **OR** ART 1630 - Ceramic Handbuilding *Credits: 3*
- ART 1410 - Darkroom Photography I *Credits: 3*
- **OR** ART 1450 - Digital Photography I *Credits: 3*

Open Electives

This will be 3 or 4 courses depending on the choices made for the Restricted Electives above. *Credits: 9-12*

You are free to choose any courses at or above 1000-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 for your program. You can also complete other General Education requirements for CCSU, SCSU, WCSU and COSC- but not more than two requirements for ECSU. You are encouraged to meet with your advisor to determine which courses to select.

Total Credits 60-63

Automotive Technology: Advanced Engine Performance Certificate (AUTO-CC-AEP)

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.

Learning Outcomes:

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

- 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.
- 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.
- Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
- Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
- Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
- 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.
- Apply knowledge of general electrical/electronic systems, including but not limited to: starting, charging, lighting, wiring, accessories, diagnosis and repair.
- 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.

The courses in the program are accredited by Automotive Service Excellence Education Foundation (A.S.E.).

This Certificate will prepare students for the Automotive Service Excellence Education Foundation (A.S.E.) G1, A1, A6, A8, L1 exams as well as additional automotive elective area selected.

Required Courses

AUTO 1030 - Automotive Maintenance and Light Repair *Credits: 3*
 AUTO 1033 - Electrical/Electronics Systems *Credits: 3*
 AUTO 1031 - Engine Repair *Credits: 3*
 AUTO 1037 - Engine Performance *Credits: 3*
 AUTO 2038 - Advanced Engine Performance *Credits: 3*
 Automotive Elective *Credits: 3*

Total Credits: 18

Automotive Technology: Automotive Management, AS (AUTO-AS-AM)

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 Degrees or a Business Degree if they aspired towards Automotive Management. The Management Option creates a sensible way for employers to fill management positions.

Learning Outcomes:

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

- Apply Language Arts and Communications skills related to the occupation, including but not limited to: reading, writing, and oral communication.
- 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.
- 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.
- Apply knowledge of Computer Applications including word processing, spreadsheets, graphs and other software related to the occupation.
- Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
- Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
- Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
- Apply knowledge of general engine diagnosis and repair, including but not limited to the engines: cylinder heads, valve train, block, lubrication, and cooling system.
- Apply knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment and repair.
- Apply knowledge of general disc and/or drum brake system, hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment, diagnosis, and repair.
- Apply knowledge of general electrical/electronic systems, including but not limited to: starting, charging, lighting, wiring, accessories, diagnosis and repair.
- Demonstrate basic knowledge of management, human resources, and organizational development in an entry-level management position.
- Understand and practice the various functions of management as well as the nature and responsibilities of a manager.
- Interpret management information from various sources such as financial statements, annual reports, and publications.
- Demonstrate a responsible attitude in relationships with employers, fellow employees, working groups, and the macro-environment.

General Education Courses (21-24 credits)

ENG 1010 - Composition *Credits: 3*

Elective MATH 1000 or higher Elective *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

AUTO 1030 - Automotive Maintenance and Light Repair *Credits: 3*

AUTO 1033 - Electrical/Electronics Systems *Credits: 3*

AUTO 1031 - Engine Repair *Credits: 3*

AUTO 1038 - Brake Systems *Credits: 3*

AUTO 1036 - Suspension and Steering *Credits: 3*

AUTO 2030 - Service and Parts Department Management *Credits: 3*

BUSN 1100 - Introduction to Business *Credits: 3*

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BENT 2170 - Small Business Management & Growth *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

Total Credits: 60-63

Automotive Technology: Comprehensive Automotive Repair and Service (CARS) Certificate (AUTO-CC-CAR)

The objective of the Comprehensive Automotive Repair and Service (CARS) Certificate Program is to educate those seeking employment in the field of automotive technology. It will prepare students for entry-level employment as Automotive Technicians. The Automotive Technician field has been in very high demand in the State, and it is growing. The intent of the program is to meet the growing need for technicians in Connecticut and the nation. This program furthers the college's mission to "respond to the changing academic, occupational, technological needs" by offering "a broad range of credit (technical, career, and academic) programs and courses leading to employment, transfer, and lifelong learning." The automotive curriculum is designed to meet all Automotive Service Excellence Education Foundation (A.S.E.) Accredited Training Program requirements for national accreditation at the Master Automotive Service Technician (MAST) level.

Learning Outcomes:

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

- Meet all the Automotive Service Excellence Education Foundation (A.S.E.) Accredited Training Program required outcomes for Master certification (MAST) Level.
- Demonstrate workplace skills related to the occupation, including but not limited to resume preparation, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics, and teamwork.
- Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
- Identify and use appropriate tools, testing, and measurement equipment to accomplish certain tasks related to the occupation.
- Use current reference and training materials from accepted industry publications and standards to accomplish specific tasks.
- Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by ASE Accredited Training Program requirements.

The Automotive Technology: Comprehensive Automotive Repair and Service (CARS) program at Gateway Community College is accredited by the Automotive Service Excellence (ASE) Education Foundation as an ASE Accredited Training Program.

This Program will prepare Students for the G1, A1, A2, A3, A4, A5, A6, A7, A8 & L1 ASE exams upon completion of work length time requirements. Students interested in continuing to a bachelor's degree should pursue the Comprehensive Automotive Repair and Service Associates (CARS) of Applied Science Degree program which will prepare them for to prepare for C1 and P1 ASE exams.

Required Courses

AUTO 1030 - Automotive Maintenance and Light Repair *Credits: 3*
 AUTO 1031 - Engine Repair *Credits: 3*
 AUTO 1033 - Electrical/Electronics Systems *Credits: 3*
 AUTO 1036 - Suspension and Steering *Credits: 3*
 AUTO 1037 - Engine Performance *Credits: 3*
 AUTO 1038 - Brake Systems *Credits: 3*
 AUTO 1194 - Co-op Work Experience I *Credits: 3*
 AUTO 2033 - Manual Drivetrain and Axles *Credits: 3*
 AUTO 2035 - Automotive Transmission/Transaxle *Credits: 3*
 AUTO 2037 - Heating and Air Conditioning *Credits: 3*
 AUTO 2038 - Advanced Engine Performance *Credits: 3*
 AUTO 2294 - Co-op Work Experience II *Credits: 3*

Total Credits: 36

Automotive Technology: Comprehensive Automotive Repair and Service (CARS), AS (AUTO-AS-CAR)

The objective of the Comprehensive Automotive Repair and Service (CARS) Degree Program is to educate those seeking employment in the field of automotive technology. It will prepare students for entry-level employment as Automotive Technicians. The Automotive Technician field has been in very high demand in the State, and it is growing! The intent of the program is to meet the growing need for technicians in Connecticut and the nation. This program furthers the college's mission to "respond to the changing academic, occupational, technological needs" by offering "a broad range of credit (technical, career, and academic) programs and courses leading to employment, transfer, and lifelong learning." The automotive curriculum is designed to meet all Automotive Service Excellence Education Foundation (A.S.E.) Accredited Training Program requirements for national accreditation.

Learning Outcomes:

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

- Meet all the Automotive Service Excellence Education Foundation (A.S.E.) Accredited Training Program required outcomes for Master certification.
- Demonstrate workplace skills related to the occupation, including but not limited to resume preparation, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics, and teamwork.
- Apply knowledge of theory and safety to accomplish certain tasks related to the occupation
- Identify and use appropriate tools, testing, and measurement equipment to accomplish certain tasks related to the occupation
- Use current reference and training materials from accepted industry publications and standards to accomplish specific tasks
- Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by ASE Accredited Training Program requirements.

The Automotive Technician program at Naugatuck Valley Community College is accredited by the Automotive Service Excellence (ASE) Education Foundation as an ASE Accredited Training Program. This Program will prepare Students for the G1, A1, A2, A3, A4, A5, A6, A7, A8 & L1 ASE exams upon completion of work length time requirements. Students interested in continuing to a bachelor's degree should pursue the Comprehensive Automotive Repair and Service Associates (CARS) of Applied Science Degree program which will prepare them for to prepare for C1 and P1 ASE exams.

General Education Courses (21-24 credits)

ENG 1010 - Composition *Credits: 3*

Elective MATH 1000 or higher *Credits 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

AUTO 1030 - Automotive Maintenance and Light Repair *Credits: 3*

AUTO 1033 - Electrical/Electronics Systems *Credits: 3*

AUTO 1031 - Engine Repair *Credits: 3*

AUTO 1038 - Brake Systems *Credits: 3*

AUTO 2037 - Heating and Air Conditioning *Credits: 3*

AUTO 1036 - Suspension and Steering *Credits: 3*

AUTO 1037 - Engine Performance *Credits: 3*

AUTO 2038 - Advanced Engine Performance *Credits: 3*

AUTO 2033 - Manual Drivetrain and Axles *Credits: 3*

AUTO 2035 - Automotive Transmission/Transaxle *Credits: 3*

AUTO 1194 - Co-op Work Experience I *Credits: 3*

Directed Electives:

Choose 2 courses from:

- AUTO 1090 - Introduction to Welding *Credits: 3*
- AUTO 2039 - Light Vehicle Diesel Engines *Credits: 3*
- AUTO 2294 - Co-op Work Experience II *Credits: 3*
- AUTO 2394 - Co-op Work Experience III *Credits: 3*
- AUTO 2030 - Service and Parts Department Management *Credits: 3*

Total Credits: 60-63

Automotive Technology: Fundamentals Certificate (AUTO-CC-AF)

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.

Learning Outcomes:

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

- Relate knowledge of theory and safety to accomplish certain tasks related to the occupation.
- Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
- Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
- 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.
- Relate knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment and repair.
- Relate knowledge of general disc and/or drum brake system, hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment, diagnosis, and repair.

The courses in the program are accredited by Automotive Service Excellence Education Foundation (A.S.E.).

This Certificate will prepare students for the Automotive Service Excellence Education Foundation (A.S.E.) G1, A1, A4, A5, A6 exams.

Required Courses

AUTO 1030 - Automotive Maintenance and Light Repair *Credits: 3*

AUTO 1033 - Electrical/Electronics Systems *Credits: 3*

AUTO 1038 - Brake Systems *Credits: 3*

AUTO 1036 - Suspension and Steering *Credits: 3*

AUTO 1031 - Engine Repair *Credits: 3*

Automotive Elective *Credits: 3*

Total Credits: 18

Automotive Technology: General Auto Service Certificate (AUTO-CC-GAS)

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.

Learning Outcomes:

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

- 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.
- Demonstrate workplace skills related to the occupation, including but not limited to: seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics and teamwork.
- Apply knowledge of theory and safety to accomplish certain tasks related to the occupation.
- Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
- Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
- 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.
- Apply knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment, and repair.
- Apply knowledge of general disc and/or drum brake system, hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment, diagnosis, and repair.
- Apply knowledge of general electrical/electronic systems, including but not limited to, starting, charging, lighting, wiring, accessories, diagnosis, and repair.

The courses in the program are accredited by Automotive Service Excellence Education Foundation (A.S.E.)

This Certificate will prepare students for the Automotive Service Excellence Education Foundation (A.S.E.) G1, A1, A4, A5, A6, A7 exams as well as additional automotive elective area selected.

Program Certificate Requirements (21 credits)

AUTO 1030 - Automotive Maintenance and Light Repair *Credits: 3*

AUTO 1033 - Electrical/Electronics Systems *Credits: 3*

AUTO 1038 - Brake Systems *Credits: 3*

AUTO 1036 - Suspension and Steering *Credits: 3*

AUTO 1031 - Engine Repair *Credits: 3*

AUTO 2037 - Heating and Air Conditioning *Credits: 3*

Automotive Elective *Credits: 3*

Total Credits: 21

Automotive Technology: General Motors Automotive Service Certificate (AUTO-CC-GMS)

The Automotive Service Certificate was designed by General Motors (GM) and Gateway Community College, now Gateway campus of CT State Community College. This unique, cooperative program educates students for an entry level maintenance position in General Motors or AC Delco sponsored automotive repair facilities. Through a special arrangement, students attend classes and labs at the North Haven Campus and then obtain internship experience at a sponsoring GM or AC Delco facility. Students in the GM Certificate program receive instruction on General Motors' products. Vehicles, parts, engines, specialized tools, service information, and materials are provided by General Motors Corporation. For more information, contact Professor Daniel Fuller, Program Coordinator at (203) 285-2370 or e-mail at (dfuller@gatewayct.edu).

Learning Outcomes:

Upon successful completion of all program requirements, the graduate will:

- Meet ASE Accredited Training Program required outcomes for Automotive Service Technician(AST) certified programs.
- Demonstrate workplace skills including but not limited to resume preparation, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics, and teamwork.
- Apply knowledge of automotive theory to safely perform the duties of an entry level automotive technician.
- Identify and use appropriate tools, testing, and measurement equipment to perform the duties of an entry level service technician.
- Use current reference and training materials from accepted industry publications and standards to accomplish duties required of an entry level service technician.
- Receive corporate credit for web based and embedded classroom / laboratory training in the GM Center of Learning Training Web Site
- Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by ASE Accredited Training Program requirements.
- Meet the industry ASE accreditation training outcome requirements for General Motors Steering and Suspension, Braking, Engine Propulsion, Electrical, Engine Performance, Transmission/Transaxle and Climate Control/Safety systems as assessed by existing instruments in the current course
- Demonstrate practical application of all above outcomes by successful completion of an in-dealership internship as assessed by existing instruments in current course.

Program entry requirements:

This program is offered only at the North Haven campus. Prospective students must obtain sponsorship through a GM dealership or AC Delco affiliated independent service center. Students must meet employment eligibility guidelines for the sponsoring employer. Students must Have a valid driver's license issued by one of the 50 states in United States that does not have any restrictions that would prohibit the student from operating an automotive on public roads. Students must purchase required tool set that meets program standards.

The Automotive Technology: General Motors - Automotive Service Education (ASEP) program at Gateway Community College is accredited by the Automotive Service Excellence (ASE) Education Foundation as an ASE Accredited Training Program. During their final semester students are encouraged to take the National Institute for Automotive Service Excellence (ASE) exams for each of the eight automotive subject areas for national certification. Once students are selected for enrollment into the program, they will have until August 30 to find a sponsor for their internships at a GM automotive dealership or AC Delco repair facility to remain in the degree program. Sponsorship of students is a requirement throughout the program to include at the time of graduation

This program prepares students to sit for the Automotive Service Excellence (ASE) exams A1-A8, G1 and L1.

Students may also receive industry credentials through ProCut (on vehicle rotor service), Snap-on (ShopKey Information System) AllData (Service Information), and Fluke (Digital Meter). Students also receive credit from the General Motors Center of Learning for GM courses that are embedded in the curriculum. Successful Students receive credit for approximately 80% of the GM Service Training Standard courses and are well on their way to Master Certification.

Students receive industry experience through mandatory paid internships at participating General Motors dealerships or qualified AC Delco independent service facilities. This experience is credited toward the ASE hands-on requirements that must be met prior to sitting for the certification exams.

Internship requirements:

Students will be required to successfully complete paid internships at sponsoring GM dealerships or AC Delco repair facilities. Internships will be tracked and monitored by the program coordinator. Successful internship completion requires that all assigned General Motors Center of Learning training courses be completed with a minimum grade of Pass.

Students seeking acceptance into the General Motors Automotive Service Certificate will have to apply to the program by July 1 prior to their enrollment in the program. Requirements to apply are:

- Interview with the GM Automotive Service Education Program (ASEP) Program Coordinator to verify eligibility
- Be eligible for college level Math
- Be eligible for college level English
- Complete the Automotive Program placement exam if required
- Have a valid driver's license issued by one of the 50 states that does not have any restrictions that would prohibit the student from operating an automotive on public roads

Required Courses

AUTO 1010 - Introduction to General Motors Automotive Systems *Credits: 2*

AUTO 1014 - General Motors Steering & Suspension Systems *Credits: 3*

AUTO 1012 - General Motors Braking Systems *Credits: 3*

AUTO 1195A - General Motors Internship 1A *Credits: 1*

AUTO 1195B - General Motors Internship 1B *Credits: 1*

AUTO 1018 - General Motors Engine Propulsion Systems *Credits: 3*

AUTO 1016 - General Motors Electrical Systems *Credits: 3*

AUTO 1195C - General Motors Internship 1C *Credits: 1*

AUTO 1295 - General Motors Internship 2 *Credits: 3*

AUTO 2001 - General Motors Powertrain Control System *Credits: 3*

AUTO 2003 - General Motors Manual Drivetrain Systems *Credits: 3*

AUTO 2395A - General Motors Internship 3A *Credits: 1*

AUTO 2395B - General Motors Internship 3B *Credits: 1*

AUTO 2395C - General Motors Internship 3C *Credits: 1*

AUTO 2005 - General Motors Automatic Drivetrain Systems *Credits: 3*

AUTO 2007 - General Motors Climate Control and Safety Systems *Credits: 3*

Total Credits: 35

Automotive Technology: General Motors Automotive Service Education Program (ASEP), AAS (AUTO-AAS-ASE)

The Automotive Service Education Program (ASEP) was designed by General Motors (GM) and Gateway Community College, now Gateway campus of CT State Community College. This unique, cooperative program educates students for a challenging career in General Motors and AC Delco sponsored automotive service facilities. Through a special arrangement, students attend classes and labs at the North Haven Campus and then work full-time at a sponsoring GM or AC Delco facility. Vehicles, parts, engines, specialized tools, service information, and materials are provided by General Motors Corporation. The automotive curriculum is designed to meet all Automotive Service Excellence (ASE) Accredited Training Program requirements for national accreditation. This program is offered at the North Haven campus only.

Program Entry Requirements

Prospective students must obtain paid internship sponsorship through a GM dealership or AC Delco affiliated independent service center. Students must meet employment eligibility guidelines for the sponsoring employer. Students must have a valid driver's license issued by one of the 50 states in United States that does not have any restrictions that would prohibit the student from operating an automotive on public roads.

Students must purchase required tool set that meets program standards.

Internship Requirements

Students receive industry experience through mandatory paid internships at participating General Motors dealerships or qualified AC Delco independent service facilities. This experience is credited toward the ASE hands-on requirements that must be met prior to sitting for the certification exams. Internships will be tracked and monitored by the program coordinator. Successful internship completion requires that all assigned General Motors Center of Learning training courses be completed with a minimum grade of Pass.

Students seeking acceptance into the Automotive Technology (GM-ASEP) A.A.S. degree program will have to apply to the program by June 1 prior to their enrollment in the program. Requirements to apply are:

- Interview with the GM ASEP Program Coordinator to verify eligibility
- Be eligible for college level Math
- Be eligible for college level English
- Complete the Automotive Program placement exam if required
- Have a valid driver's license issued by one of the 50 states in United States that does not have any restrictions that would prohibit the student from operating an automotive on public roads

Selection of students will be completed by July 1 and students will be notified shortly after. Once students are selected for enrollment into the program, they will have until August 30th to find a sponsor for their internships at a GM automotive dealership or AC Delco repair facility to remain in the degree program. Sponsorship of students is a requirement throughout the program to include at the time of graduation. Upon completion of the ASEP program, students will receive an Associate in Applied Science degree in Automotive Technology from Connecticut State Community College. The program offers opportunities for future specialization and advancement to management. This program has been evaluated by the National Institute for Automotive Service Excellence (ASE) and is certified as an *ASE Accredited Training Program*. During their final semester students are encouraged to take the (ASE) exams for each of the eight automotive subject areas for national certification.

Learning Outcomes:

Upon successful completion of all program requirements, the graduate will:

- Meet ASE Accredited Training Program required outcomes for Master Automotive Service Technology (MAST) certified programs.
- Demonstrate workplace skills including but not limited to resume preparation, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics, and teamwork.
- Apply knowledge of automotive theory to safely perform the duties of an entry level automotive technician.
- Identify and use appropriate tools, testing, and measurement equipment to perform the duties of an entry level service technician.
- Use current reference and training materials from accepted industry publications and standards to accomplish duties required of an entry level service technician.

- Earn corporate credit for web based and embedded classroom / laboratory training in the GM Center of Learning Training Web Site
- Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by ASE Accredited Training Program requirements.
- Meet the industry ASE accreditation training outcome requirements for General Motors Steering and Suspension, Braking, Engine Propulsion, Electrical, Engine Performance, Transmission/Transaxle and Climate Control/Safety systems as assessed by existing instruments in the current course
- Demonstrate practical application of all above outcomes by successful completion of an in-dealership internship as assessed by existing instruments in current course.

This program follows a 12 week semester format. Students alternate between 12 weeks of on-campus instruction and 12 weeks of paid internship work.

The Automotive Technology: General Motors - Automotive Service Education (ASEP) program at Gateway Community College is accredited by the Automotive Service Excellence (ASE) Education Foundation as an ASE Accredited Training Program. During their final semester students are encouraged to take the ASE exams for each of the eight automotive subject areas for national certification.

Once students are selected for enrollment into the program, they will have until August 30 to find a sponsor for their paid internships at a GM automotive dealership or AC Delco repair facility in order to remain in the degree program.

Sponsorship of students is a requirement throughout the program to include at the time of graduation. This program is offered at the North Haven campus only.

This program prepares students to sit for the Automotive Service Excellence (ASE) exams A1-A8, G1 and L1. Students may also receive industry credentials through ProCut (on vehicle rotor service), Snap-on (ShopKey Information System) AllData (Service Information), and Fluke (Digital Meter). Students also receive credit from the General Motors Center of Learning for GM courses that are embedded in the curriculum. Successful Students receive credit for approximately 80% of the GM Service Training Standard courses and are well on their way to Master Certification.

Program Requirements

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1001 - Quantitative Literacy *Credits: 3*

OR MATH 1002 - Math for Science and Technology *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (41 credits)

AUTO 1010 - Introduction to General Motors Automotive Systems *Credits: 2*

AUTO 1014 - General Motors Steering & Suspension Systems *Credits: 3*

AUTO 1012 - General Motors Braking Systems *Credits: 3*

AUTO 1195A - General Motors Internship 1A *Credits: 1*

AUTO 1195B - General Motors Internship 1B *Credits: 1*

AUTO 1018 - General Motors Engine Propulsion Systems *Credits: 3*

AUTO 1016 - General Motors Electrical Systems *Credits: 3*

AUTO 1195C - General Motors Internship 1C *Credits: 1*

AUTO 1295 - General Motors Internship 2 *Credits: 3*

AUTO 2001 - General Motors Powertrain Control System *Credits: 3*

AUTO 2003 - General Motors Manual Drivetrain Systems *Credits: 3*

AUTO 2030 - Service and Parts Department Management *Credits: 3*

AUTO 2395A - General Motors Internship 3A *Credits: 1*

AUTO 2395B - General Motors Internship 3B *Credits: 1*
AUTO 2395C - General Motors Internship 3C *Credits: 1*
AUTO 2005 - General Motors Automatic Drivetrain Systems *Credits: 3*
AUTO 2007 - General Motors Climate Control and Safety Systems *Credits: 3*
AUTO 2495 - General Motors Internship 4 *Credits: 3*

Total Credits: 62-64

Automotive Technology: Honda Professional Auto Career Training (PACT) Auto Service Certificate (AUTO-CC-PCT)

The Automotive Service Certificate was designed by American Honda Co. (AHM) Professional Automotive Career Training (PACT) and Gateway Community College, now Gateway campus of CT State Community College. This unique, cooperative program educates students for an entry level maintenance position in Honda or Acura sponsored automotive repair facilities. Through a special arrangement, students attend classes and labs at the North Haven Campus and then obtain practicum experience at a sponsoring Honda or Acura facility. Students in the Honda PACT Certificate program receive instruction on AHM products. Vehicles, parts, engines, specialized tools, service information, and materials are provided by AHM. For more information, contact Professor Giuseppe Vertucci, Program Coordinator at (203) 285-2434 or e-mail at (gvertucci@gatewayct.edu).

Program Entry Requirements

Prospective students must obtain sponsorship through a AHM dealership. Students must meet employment eligibility guidelines for the sponsoring employer. Students must have a valid driver's license issued by one of the 50 states in United States that does not have any restrictions that would prohibit the student from operating an automotive on public roads. Students will be required to provide their own hand tools and personal protective equipment.

Practicum Requirements

Students will be required to successfully complete paid practicums at sponsoring AHM dealerships. Practicums will be tracked and monitored by the Honda PACT program coordinator. Successful practicum completion requires that all assigned Honda Interactive Network (IN) training courses be completed with a minimum grade of Pass.

Students seeking acceptance into the Automotive Technology: Honda PACT degree program will have to apply to the program. Requirements to apply are:

- Interview with the Honda PACT Program Coordinator to verify eligibility
- Be eligible for college level Math
- Be eligible for college level English
- Complete the Automotive Program placement exam if required
- Have a valid driver's license issued by one of the 50 states that does not have any restrictions that would prohibit the student from operating an automotive on public roads

Selection of students will be completed and students will be notified shortly after. Once students are selected for enrollment into the program, they will have to find a sponsor for their practicums at an AHM automotive dealership to remain in the Automotive Technology: Honda PACT degree program. Sponsorship of students is a requirement throughout the program to include at the time of graduation. Upon completion of the program, students will receive a certificate in Automotive Technology from CT State Community College as well as Honda PACT Certification. This program has been evaluated by the National Institute for Automotive Service Excellence (ASE) and is certified as an *ASE Accredited Training Program*. During their final semester students are encouraged to take the National Institute for Automotive Service Excellence (ASE) exams for each of the eight automotive subject areas for national certification.

Learning Outcomes:

Upon successful completion of all program requirements, the graduate will:

- Meet ASE Accredited Training Program required outcomes for Master Automotive Service Technician (MAST) certified programs.
- Demonstrate workplace skills including but not limited to resume preparation, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics, and teamwork.
- Apply knowledge of automotive theory to safely perform the duties of an entry level automotive technician.
- Identify and use appropriate tools, testing, and measurement equipment to perform the duties of an entry level service technician.
- Use current reference and training materials from accepted industry publications and standards to accomplish duties required of an entry level service technician.
- Receive corporate credit for web based and embedded classroom / laboratory training in the Honda IN Training Web Site
- Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by ASE Accredited Training Program requirements.

- Meet the industry ASE accreditation training outcome requirements for AHM Steering and Suspension, Braking, Power Plant, Electrical, Engine Performance, Drivetrain and Climate Control/Safety systems as assessed by existing instruments in the current course
- Demonstrate practical application of all above outcomes by successful completion of an in-dealership practicum as assessed by existing instruments in current course.

The Automotive Technology: Honda PACT program at Gateway Community College is accredited by the Automotive Service Excellence (ASE) Education Foundation as an ASE Accredited Training Program. During their final semester students are encouraged to take the National Institute for Automotive Service Excellence (ASE) exams for each of the eight automotive subject areas for national certification. Once students are selected for enrollment into the program, they will have until August 30 to find a sponsor for their practicums at an AHM automotive dealership to remain in the certificate program. Sponsorship of students is a requirement throughout the program to include at the time of graduation.

This program prepares students to sit for the Automotive Service Excellence (ASE) exams A1-A8, G1 and L1.

Students may also receive industry credentials through ProCut (on vehicle rotor service), Snap-on (ShopKey Information System) AllData (Service Information), and Fluke (Digital Meter). Students also receive credit from the Honda PACT for AHM courses that are embedded in the curriculum. Successful students receive credit for approximately 70% of the Honda/ Acura Technician Training Standard courses and are well on their way to Honda Master Certification.

Students receive industry experience through mandatory paid practicums at participating AHM dealerships. This experience is credited toward the ASE hands-on requirements that must be met prior to sitting for the certification exams.

Required Courses

AUTO 1055 - Honda Power Plant Systems Theory *Credits: 2*
AUTO 1056 - Honda Power Plant Systems Lab *Credits: 2*
AUTO 1041 - Honda Express Service and Shop Practices Theory *Credits: 1*
AUTO 1042 - Honda Express Service and Shop Practices Lab *Credits: 2*
AUTO 1057 - Honda Electrical Systems Theory *Credits: 2*
AUTO 1058 - Honda Electrical Systems Lab *Credits: 2*
AUTO 1065 - Honda Steering & Suspension Systems Theory *Credits: 2*
AUTO 1066 - Honda Steering & Suspension Systems Lab *Credits: 2*
AUTO 1067 - Honda Braking Systems Theory *Credits: 2*
AUTO 1068 - Honda Braking Systems Lab *Credits: 2*
AUTO 1595 - Honda Practicum 1 *Credits: 1*
AUTO 2595 - Honda Practicum 2 *Credits: 1*
AUTO 2011 - Honda Engine Management Systems Theory *Credits: 2*
AUTO 2012 - Honda Engine Management Systems Lab *Credits: 2*
AUTO 2013 - Honda Drivetrain Systems Theory *Credits: 2*
AUTO 2014 - Honda Drivetrain Systems Lab *Credits: 2*
AUTO 2055 - Honda Advanced Electrical Systems Theory *Credits: 2*
AUTO 2056 - Honda Advanced Electrical Systems Lab *Credits: 2*
AUTO 2057 - Honda Climate Control & Safety Systems Theory *Credits: 2*
AUTO 2058 - Honda Climate Control & Safety Systems Lab *Credits: 2*
AUTO 2695 - Honda Practicum 3 *Credits: 1*
AUTO 2795 - Honda Practicum 4 *Credits: 1*
AUTO 2895 - Honda Practicum 5 *Credits: 1*

Total Credits: 40

Automotive Technology: Honda Professional Automotive Career Training (PACT), AAS (AUTO-AAS-PCT)

The Automotive Technology: Honda Professional Automotive Career Training (PACT) degree program was designed by American Honda Co. (AHM) Professional Automotive Career Training (PACT) and Gateway Community College, now Gateway campus of CT State Community College. This unique, cooperative program educates students for an entry level maintenance position in Honda or Acura sponsored automotive repair facilities. Through a special arrangement, students attend classes and labs at the North Haven Campus and then obtain practicum experience at a sponsoring Honda or Acura facility. Students in the Automotive Technology: Honda PACT degree program receive instruction on AHM products. Vehicles, parts, engines, specialized tools, service information, and materials are provided by AHM. For more information, contact Professor Giuseppe Vertucci, Program Coordinator at (203) 285-2434 or e-mail at (gvertucci@gatewayct.edu).

Program Entry Requirements

Prospective students must obtain sponsorship through a AHM dealership. Students must meet employment eligibility guidelines for the sponsoring employer. Students must have a valid driver's license issued by one of the 50 states in United States that does not have any restrictions that would prohibit the student from operating an automotive on public roads. Students will be required to provide their own hand tools and personal protective equipment.

Practicum Requirements

Students will be required to successfully complete paid practicums at sponsoring AHM dealerships. Practicums will be tracked and monitored by the Honda PACT program coordinator. Successful practicum completion requires that all assigned Honda Interactive Network (IN) training courses be completed with a minimum grade of Pass.

Students seeking acceptance into the Automotive Technology: Honda PACT degree program will have to apply to the program. Requirements to apply are:

- Interview with the Honda PACT Program Coordinator to verify eligibility
- Be eligible for college level Math
- Be eligible for college level English
- Complete the Automotive Program placement exam if required
- Have a valid driver's license issued by one of the 50 states that does not have any restrictions that would prohibit the student from operating an automotive on public roads

Selection of students will be completed and students will be notified shortly after. Once students are selected for enrollment into the program, they will have to find a sponsor for their practicums at an AHM automotive dealership to remain in the Automotive Technology: Honda PACT degree program. Sponsorship of students is a requirement throughout the program to include at the time of graduation. Upon completion of the program, students will receive a degree in Automotive Technology from CT State Community College as well as Honda PACT Certification. This program has been evaluated by the National Institute for Automotive Service Excellence (ASE) and is certified as an *ASE Accredited Training Program*. During their final semester students are encouraged to take the National Institute for Automotive Service Excellence (ASE) exams for each of the eight automotive subject areas for national certification.

Learning Outcomes:

Upon successful completion of all program requirements, the graduate will:

- Meet ASE Accredited Training Program required outcomes for Master Automotive Service Technician (MAST) certified programs.
- Demonstrate workplace skills including but not limited to resume preparation, seeking employment, maintaining a safe and healthy workplace environment, demonstrating workplace ethics, and teamwork.
- Apply knowledge of automotive theory to safely perform the duties of an entry level automotive technician.
- Identify and use appropriate tools, testing, and measurement equipment to perform the duties of an entry level service technician.
- Use current reference and training materials from accepted industry publications and standards to accomplish duties required of an entry level service technician.
- Receive corporate credit for web based and embedded classroom / laboratory training in the Honda IN Training Web Site

- Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by ASE Accredited Training Program requirements.
- Meet the industry ASE accreditation training outcome requirements for AHM Steering and Suspension, Braking, Power Plant, Electrical, Engine Performance, Drivetrain and Climate Control/Safety systems as assessed by existing instruments in the current course
- Demonstrate practical application of all above outcomes by successful completion of an in-dealership practicum as assessed by existing instruments in current course.

The Automotive Technology: Honda PACT program at Gateway Community College is accredited by the Automotive Service Excellence (ASE) Education Foundation as an ASE Accredited Training Program. During their final semester students are encouraged to take the National Institute for Automotive Service Excellence (ASE) exams for each of the eight automotive subject areas for national certification. Once students are selected for enrollment into the program, they will have until August 30 to find a sponsor for their practicums at an AHM automotive dealership to remain in the certificate program. Sponsorship of students is a requirement throughout the program to include at the time of graduation.

This program prepares students to sit for the Automotive Service Excellence (ASE) exams A1-A8, G1 and L1.

Students may also receive industry credentials through ProCut (on vehicle rotor service), Snap-on (ShopKey Information System) AllData (Service Information), and Fluke (Digital Meter). Students also receive credit from the Honda PACT for AHM courses that are embedded in the curriculum. Successful students receive credit for approximately 70% of the Honda/ Acura Technician Training Standard courses and are well on their way to Honda Master Certification.

Students receive industry experience through mandatory paid practicums at participating AHM dealerships. This experience is credited toward the ASE hands-on requirements that must be met prior to sitting for the certification exams.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40 credits)

AUTO 1055 - Honda Power Plant Systems Theory *Credits: 2*

AUTO 1056 - Honda Power Plant Systems Lab *Credits: 2*

AUTO 1041 - Honda Express Service and Shop Practices Theory *Credits: 1*

AUTO 1042 - Honda Express Service and Shop Practices Lab *Credits: 2*

AUTO 1057 - Honda Electrical Systems Theory *Credits: 2*

AUTO 1058 - Honda Electrical Systems Lab *Credits: 2*

AUTO 1065 - Honda Steering & Suspension Systems Theory *Credits: 2*

AUTO 1066 - Honda Steering & Suspension Systems Lab *Credits: 2*

AUTO 1067 - Honda Braking Systems Theory *Credits: 2*

AUTO 1068 - Honda Braking Systems Lab *Credits: 2*

AUTO 1595 - Honda Practicum 1 *Credits: 1*

AUTO 2595 - Honda Practicum 2 *Credits: 1*

AUTO 2011 - Honda Engine Management Systems Theory *Credits: 2*

AUTO 2012 - Honda Engine Management Systems Lab *Credits: 2*

AUTO 2013 - Honda Drivetrain Systems Theory *Credits: 2*

AUTO 2014 - Honda Drivetrain Systems Lab *Credits: 2*

AUTO 2055 - Honda Advanced Electrical Systems Theory *Credits: 2*

AUTO 2056 - Honda Advanced Electrical Systems Lab *Credits: 2*

AUTO 2057 - Honda Climate Control & Safety Systems Theory *Credits: 2*

AUTO 2058 - Honda Climate Control & Safety Systems Lab *Credits: 2*

AUTO 2695 - Honda Practicum 3 *Credits: 1*

AUTO 2795 - Honda Practicum 4 *Credits: 1*

AUTO 2895 - Honda Practicum 5 *Credits: 1*

Total Credits 61-63

Aviation Maintenance Technology (AVIA-AS)

To be eligible for an Associate in Science degree in Aviation Maintenance Technology program a student must successfully complete a Federal Aviation Agency (FAA) approved Airframe and Powerplant Mechanics program that is offered at FAA approved schools and have an active license. Thirty credits will be granted to individuals who have an active FAA license. An additional 30 credits of college instruction must be completed for the Associate in Science degree.

FAA schools can be found at <https://av-info.faa.gov/MaintenanceSchool.asp>.

Learning Outcomes:

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

- Perform mathematics related to the occupation, including but not limited to algebra, arithmetic, decimals, and graphs
- Use the scientific method and critical thinking to solve problems related to the occupation
- Apply knowledge of theory and safety to accomplish certain tasks related to the occupation
- Identify and use the appropriate tools, testing procedures, and measurement equipment to accomplish certain tasks related to the occupation

Graduates of this program may obtain employment as mechanics at airports, technicians with aircraft and powerplant companies, or they may continue their education toward a Bachelor's degree in the industrial and manufacturing fields.

General Education Courses (23-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

PHYS 1201 - General Physics I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (7 Credits)

CENT 1016 - Computer Applications for Technology *Credits: 3*

PHYS 1202 - General Physics II *Credits: 4*

Airframe and Powerplant Mechanics Program (30 credits)

Student must successfully complete a Federal Aviation Agency (FAA) approved Airframe and Powerplant Mechanics program that is offered at FAA approved schools and have an active license.

Total Credits: 60-61

Banking, AS (BANK-AS)

This degree program is a career development opportunity for students currently working in banking or in a related industry, as well as students interested in pursuing a career in similar fields. The curriculum is designed to better prepare students for entry level, supervisory and middle-management roles in savings banks, commercial banks, savings and loan associations, credit unions and other financial institutions. The courses familiarize students with the various aspects of banking and financial services.

Learning Outcomes:

- Demonstrate an understanding of the basic theory and practice of business administration and banking.
- Demonstrate the ability to read, understand, and prepare standard types of business communications.
- Demonstrate analytical problem-solving and decision-making skills applicable to business administration and banking.
- Demonstrate proficiency in the use and interpretation of data and information as applied to the various applications in business administration and banking.
- Exhibit knowledge of financial services institutions

This program prepares graduates for careers in the Banking Industry and is offered only at the Housatonic Campus of the Connecticut State Community College. This program operates in collaboration with and is, supported by local banks.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

BFIN 1250 - Principles of Banking *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3*

BFIN 2110 - Money & Banking *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BFIN 1100 - Personal Finance *Credits: 3*

ECON 1002 - Principles of Microeconomics *Credits: 3*

CSA 1110 - Introduction to Software Applications *Credits: 3*

OR BUSN 1150 - Business Software Applications *Credits: 3*

Choose two from: (6 credits)

- BFIN 2300 - Investment Principles *Credits: 3*
- BMKT 1060 - Principles of Selling *Credits: 3*
- BMKT 1230 - Principles of Customer Service *Credits: 3*
- BUSN 2195 - Business Co-op Internship *Credits: 3*

Total Credits: 60-62

Biochemistry Studies - TAP/CSCU Transfer Degree, AA (BIOC-AA-TAP)

Biochemistry is the study of the chemical processes which occur within and between living organisms. The study of biochemistry deals with the structures, functions and interactions of macromolecules: lipids, nucleic acids, carbohydrates, and proteins. The following program provides a firm grounding in mathematics, physics, biology, and chemistry.

Learning Outcomes:

Students completing the CSCU Biochemistry Pathway and earning an Associate's Degree will be able to:

- Understand and apply a chemical knowledge base to biological phenomena, including theories of chemical bonding and reactivity.
- Communicate scientific knowledge in written and verbal formats.
- Demonstrate technical competencies in the application of laboratory skills and safety.
- Interpret, use and apply scientific literature in the context of biochemical problems.

Students who earn an Associate in Arts degree in Biochemistry Studies from the Connecticut State Community College can transfer their degree to either the Central Connecticut State University (CCSU), Eastern Connecticut State University (ECSU), Southern Connecticut State University (SCSU) or Western Connecticut State University (WCSU). Students will be credited as meeting the General Education requirements. Students must remain in the corresponding Biochemistry major program for the following bachelor's degrees:

- CCSU: Biochemistry - American Chemical Society (ACS) Certified, B.S.
- CCSU: Biochemistry - General Track, B.S.
- ECSU: Biochemistry, B.S.
- SCSU: Chemistry - Concentration: Biochemistry, B.S.
- WCSU: Chemistry - Biochemistry Option, ACS Approved, B.S.
- WCSU: Chemistry - Biochemistry Option, non-ACS Approved, B.S.

Full-time students may complete this program in two years. Most courses may not be taken online and some courses are offered during summer sessions. Students who transfer should be able to graduate in 2 years. This assumes a student follows the degree pathway plan created for the student at the time of admission to a four-year school listed above. There are laboratory fees associated with most program courses.

Framework Courses (33-34 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1610 - Precalculus *Credits: 4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 CHEM 1210 - General Chemistry I *Credits: 4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective WRIX - Written Communication II Course *Credits: 3*
 CHEM 1220 - General Chemistry II *Credits: 4*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (28 credits)

BIO 1210 - General Biology I *Credits: 4*
 MATH 2600 - Calculus I *Credits: 4*
 CHEM 2310 - Organic Chemistry I *Credits: 4*
 CHEM 2320 - Organic Chemistry II *Credits: 4*
 PHYS 2201 - Calculus-Based Physics I *Credits: 4*
 BIO 2350 - Microbiology *Credits: 4*
 BIO 1220 - General Biology II *Credits: 4*
 OR PHYS 2202 - Calculus-Based Physics II *Credits: 4* (*BIO 1220 is recommended for students who wish to transfer to SCSU and WCSU, otherwise students should take PHYS 2202.)

Total Credits 61-62

Biology Studies - TAP/CSCU Transfer Degree, AA (BIOL-AA-TAP)

This program prepares students to transfer into one of the Connecticut State University (CSU) biology programs.

Learning Outcomes:

Outcomes: Students completing the Connecticut State Colleges & Universities (CSCU) Biology Pathway and earning an Associate's Degree will be able to describe:

- the mechanism by which the diversity of life evolved over time.
- the basic units of structure that define the function of all living things.
- how information is stored and exchanged, within and among organisms.
- how living things transform energy and matter.
- how living systems are interconnected and interacting.

Competencies: Student completing the CSCU Biology Pathway and earning an Associate's Degree will be able to:

- Apply the process of science
- Use quantitative reasoning
- Use modeling and simulation to describe living systems
- Apply concepts and knowledge from within and outside of biology in order to interpret biological phenomena
- Communicate biological concepts and interpretations
- Discuss the relationship between Science and Society

This program follows the first two years of standard biology majors program and transfers into many public and private universities across the country. Student can transfer into the following programs under the Transfer and Articulation Policy (TAP) transfer agreement:

- Central CT State University: Ecology, Biodiversity, Evolution, Bachelor of Science (B.S.)
- Central CT State University: Environmental Science, B.S.
- Central CT State University: General Biology, B.S.
- Eastern CT State University: Biology, Bachelor of Arts (B.A.)
- Eastern CT State University: Biology, B.S.
- Southern CT State University: Biology, B.A.
- Southern CT State University: Biology, B.S.
- Western CT State University: Biology - Professional Option, B.A.
- Western CT State University: Ecological Option, B.A.

Framework Courses (33-34 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1610 - Precalculus *Credits: 4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 BIO 1210 - General Biology I *Credits: 4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective WRIX - Written Communication II Course *Credits: 3*
 CHEM 1210 - General Chemistry I *Credits: 4*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (27-28 credits)

BIO 1220 - General Biology II *Credits: 4*
 CHEM 1220 - General Chemistry II *Credits: 4*
 MATH 2600 - Calculus I *Credits: 4*
 OR Elective CRTY - Creativity Course *Credits: 3*
 OR Elective GLKY - Global Knowledge Course *Credits: 3*

PHYS 1201 - General Physics I *Credits: 4* **AND** PHYS 1202 - General Physics II *Credits: 4*

OR CHEM 2310 - Organic Chemistry I *Credits: 4* **AND** CHEM 2320 - Organic Chemistry II *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4* **AND** PHYS 2202 - Calculus-Based Physics II *Credits: 4*

Choose Two 2000-Level Lab Science Biology Courses (8 Credits)

- BIO 2111 - Anatomy & Physiology I *Credits: 4*
- BIO 2112 - Anatomy & Physiology II *Credits: 4*
- BIO 2350 - Microbiology *Credits: 4*
- BIO 2822 - Molecular Biotechniques *Credits: 4*
- BIO 2830 - Advanced Techniques in Biotechnology *Credits: 4*
- BIO 2630 - Molecular Genetics *Credits: 4*
- BIO 2865 - Principles of Synthetic Biology *Credits: 4*
- BIO 2700 - Ecology *Credits: 4*
- BIO 2098 - Special Topics in Biology *Credits: 3-4*

Total Credits: 60-62

Biomedical Engineering Technology, AS (BMDT-AS)

The rapid development of biomedical equipment technology, combined with the introduction of increasingly complex and vital biomedical equipment, has created a serious need for well-prepared technicians in hospitals and medical research centers. These technicians must understand this new technology and be capable of maintaining, calibrating, modifying, and adapting this equipment. CT State Community College's Biomedical Engineering Technology Associate Degree program will qualify students for these demanding careers.

Learning Outcomes:

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

- Show mastery of the knowledge, techniques, skills and modern tools of biomedical engineering technology
- Apply current knowledge and adapt to emerging applications in mathematics, science, engineering, and technology
- Conduct, analyze, and interpret experiments and apply experimental results to improve processes
- Function effectively as part of a team
- Communicate effectively
- Display professional, ethical, and social responsibilities

Growth in the biotechnology industry offers graduates of this program new opportunities as instrumentation calibration technicians for production, validation, and research equipment and instrumentation. Equipment manufacturers require the services of biomedical engineering technicians to assist in developing, manufacturing, testing, service, and technical sales of biomedical equipment. Graduates of CT State CC's program are also capable of dealing with most types of nonmedical electronics. This program is offered at the Gateway Campus.

General Education Courses (23-24 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

PHYS 1201 - General Physics I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40 credits)

CENT 1016 - Computer Applications for Technology *Credits: 3*

BMED 1010 - Biomedical Technology *Credits: 2*

BMED 1016 - Physiological Systems *Credits: 4*

BMED 2010 - Biomedical Instrumentation *Credits: 4*

BMED 2012 - Biomedical Equipment Design *Credits: 4*

BMED 2014 - Advanced Biomedical Instrumentation *Credits: 4*

BMED 2020 - Biomedical Practicum *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

EETA 1010 - DC Circuit Analysis *Credits: 4*

EETA 1036 - Electronic Devices *Credits: 4*

EETA 2052 - Digital Electronics *Credits: 4*

Total Credits: 63-64

Biotechnology (BIOT-AS)

The Biotechnology Associate of Science Degree is designed to prepare students with a comprehensive background and laboratory technical skills for the purpose of immediate entry into laboratory positions.

Learning Outcomes:

Successful graduates will have gained the following skills and knowledge, which will provide them with the flexibility to quickly adapt to a variety of employment or educational options in biotechnology and science.

- Conduct themselves as laboratory technicians in a biotechnology laboratory with the basic skills and knowledge required to function effectively in a research setting, adherence to Good Laboratory Practices (GLP) and safety guidelines and procedures.
- Demonstrate proficiencies in both basic and advanced principles of chemistry and biology that are required by a person working as a laboratory technician or planning to enter into a four-year college science program.
- Explain the basic principles of genetics, molecular biology, cell biology, chemistry, biochemistry, and microbiology.
- Employ sterile technique in the handling of microbial cultures with knowledge of what is safe and what is hazardous.
- Prepare solutions and perform accurate measurements using precision instruments such as spectrometers and micropipettes.
- Demonstrate skills in the use of molecular laboratory techniques including cloning to create recombinant deoxyribonucleic acid (DNA) constructs, polymerase chain reaction (PCR), protein purification, and immunoblotting.
- Utilize computers to collect and analyze experimental data and to document data in clear and concise technical reports.
- Evaluate biotechnology techniques that are utilized in original scientific research literature and communicate their significance using the appropriate scientific terminology.
- Recognize the ethical issues that are relevant to the field of biotechnology.

This program has articulation agreements with the Biomolecular Sciences Program at Central Connecticut State University and the Biology and Biochemistry Programs at Eastern Connecticut State University.

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1200 - Statistics I *Credits: 3*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 CHEM 1210 - General Chemistry I *Credits: 4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 COMM 1301 - Public Speaking *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (38-39 credits)

MATH 1012 - Trigonometry with Embedded Algebra *Credits: 4*
 OR MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3* (MATH 1600 Recommended)
 CHEM 1220 - General Chemistry II *Credits: 4*
 BIO 1210 - General Biology I *Credits: 4*
 BIO 1220 - General Biology II *Credits: 4*
 BIO 1810 - Basic Techniques in Biotechnology *Credits: 4*
 OR BIO 2822 - Molecular Biotechniques *Credits: 4*
 BIO 2350 - Microbiology *Credits: 4*
 ENG 1020 - Composition II and Literature *Credits: 3*
 OR ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*
 BIO 1809 - Principles of Biotechnology *Credits: 3*
 OR BIO 2095 - Biotechnology Internship *Credits: 3*
 OR Advanced Elective from list below *Credits: 3-4*
Students currently employed in the Biotechnology field may prefer to select an Advanced Science Elective.

Choose Two Advanced Science Electives (8 credits)

- BIO 2020 - Biochemistry *Credits: 4*
 OR CHEM 2410 - Biochemistry *Credits: 4*

- BIO 2830 - Advanced Techniques in Biotechnology *Credits: 4*
- BIO 2630 - Molecular Genetics *Credits: 4*
- BIO 2865 - Principles of Synthetic Biology *Credits: 4*
- CHEM 1120 - Principles of Organic Chemistry and Biochemistry *Credits: 4*
- CHEM 2310 - Organic Chemistry I *Credits: 4*
- CHEM 2320 - Organic Chemistry II *Credits: 4*
- CHEM 2510 - Instrumental Analysis *Credits: 4*

Total Credits: 60-61

Biotechnology Certificate (BIOT-CC)

The Biotechnology Certificate is designed to prepare students with technical skills for the purpose of entry into laboratory positions or to strengthen the skills of students currently employed in laboratory settings.

Learning Outcomes:

Successful graduates will have gained the following skills and knowledge, which can be applied to industrial or academic laboratory settings.

- Conduct themselves as professional laboratory technicians capable of following laboratory safety guidelines and procedures.
- Demonstrate proficiencies in both basic and advanced principles of chemistry and biology that are required by a person working as a laboratory technician.
- Explain the basic principles of genetics, molecular biology, cell biology, chemistry, biochemistry, and microbiology.
- Employ sterile technique in the handling of microbial cultures.
- Prepare solutions and perform accurate measurements using precision instruments such as spectrometers and micropipettes.
- Demonstrate skills in the use of molecular laboratory techniques including cloning to create recombinant deoxyribonucleic acid (DNA) constructs or polymerase chain reaction (PCR).
- Utilize computers to collect and analyze experimental data and to document data in clear and concise technical reports.
- Develop biotechnology techniques based on research in primary scientific literature.

Required Courses

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

BIO 1809 - Principles of Biotechnology *Credits: 3*

OR BIO 2095 - Biotechnology Internship *Credits: 3*

BIO 1810 - Basic Techniques in Biotechnology *Credits: 4*

OR BIO 2822 - Molecular Biotechniques *Credits: 4*

OR Advanced Science Elective *Credits: 4* (choose from list below)

Advanced Science Electives (8 credits)

Internship or students currently employed in the Biotechnology field may prefer to select an additional Advanced Science Elective.

Choose two courses from among the following courses:

- BIO 2020 - Biochemistry *Credits: 4*
- **OR** CHEM 2410 - Biochemistry *Credits: 4*
- BIO 2830 - Advanced Techniques in Biotechnology *Credits: 4*
- BIO 2630 - Molecular Genetics *Credits: 4*
- BIO 2865 - Principles of Synthetic Biology *Credits: 4*
- CHEM 1120 - Principles of Organic Chemistry and Biochemistry *Credits: 4*
- CHEM 2310 - Organic Chemistry I *Credits: 4*
- CHEM 2320 - Organic Chemistry II *Credits: 4*
- CHEM 2510 - Instrumental Analysis *Credits: 4*

Total Credits: 18

Bookkeeping Certificate (BKPC-CC)

This 21-hour certificate program provides education in a wide variety of bookkeeping skills to prepare students for immediate entry into the job market. Students will study the fundamentals of accounting and learn to use the basic software tools that bookkeepers need to know: Intuit QuickBooks, spreadsheets, databases, word processing, and more. After successfully completing this certificate, students will be prepared for entry-level opportunities in the accounting field or even consider opening your own business. This program is offered on the Gateway campus.

Learning Outcomes:

- Explain the vital role of a bookkeeper in recording and maintaining accurate and timely financial data.
- Recognize the importance of confidentiality and ethical behavior with handling financial data.
- Apply computer skills to basic bookkeeping functions.

Required Courses

ACCT 1130 - Principles of Financial Accounting *Credits: 3*
BOT 1101 - Keyboarding and Document Production I *Credits: 3*
BOT 1307 - Word Processing Applications *Credits: 3*
CSA 1111 - Spreadsheet Applications *Credits: 3*
ACCT 1250 - Accounting Applications I *Credits: 3*
BOT 2200 - Digital Workplace Technologies *Credits: 3*
CSA 2112 - Database Applications *Credits: 3*

Total Credits: 21

Business Administration Certificate (BSAD-CC)

This six-course, 18-credit certificate program is designed to give students basic business skills and to be able to function adequately at a rudimentary level in a workplace environment immediately upon completion. All courses in a certificate program apply towards an associate degree. In addition, this certificate is also applicable for people who have a 4-year degree in a discipline other than business and need some of the core business courses required by most university M.B.A. programs.

Learning Outcomes:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand the U.S. legal system and be able to apply the principles to the legal environment in which organizations conduct business.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence- based decisions.
- Apply quantitative and technical skills to analyze problems, formulate and develop a solution using appropriate technology, and effectively communicate results to stakeholders.

Required Courses

ENG 1010 - Composition *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

Business Elective - Any course in ACCT, BMGT, BMKT, BUSN, BFIN, ECON, MATH *Credits: 3*

Total Credits: 18

Business Administration, AS (BSAD-AS)

Provides skills in accounting, ethics, finance, law, management, management information systems, and marketing which are needed to succeed in businesses from sole proprietorships through global corporations. This degree will prepare students to enter a variety of positions in business, start their own venture or continue to a bachelor's degree program.

Tunxis Community College is accredited by the Associate Degree Board of Commissioners of the Accreditation Council for Business Schools and Programs (ACBSP). The Asnuntuck, Capital, Gateway, Housatonic, Manchester, Middlesex, Naugatuck Valley, Northwestern, Norwalk, Quinebaug Valley, and Three Rivers campuses are working towards accreditation for July 2023. When the merger is complete, all 12 campuses will be accredited.

Degree concentration areas are oriented towards career options for graduates and business electives may not transfer.

Additional Concentrations:

- Business Administration: Entrepreneurship, AS (BENR-AS)
- Business Administration: Finance, AS (FINC-AS)
- Business Administration: Honors, AS (BSAD-AS-HON)
- Business Administration: Management, AS (MGMT-AS)
- Business Administration: Marketing, AS (BMKT-AS)

Learning Outcomes:

In addition to the General Education learning outcomes, upon successful completion of all program requirements, graduates will be able to:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand the U.S. legal system and be able to apply the principles to the legal environment in which organizations conduct business.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence-based decisions.
- Apply quantitative and technical skills to analyze problems, formulate and develop solutions using appropriate technology, and effectively communicate results to stakeholders.

Business Administration General Education Core (21-23 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 (or higher)*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Business Administration Program Core (24 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3 (recommended for transfer)*

OR BFIN 1100 - Personal Finance *Credits: 3*

Open Elective ACCT 1250, BUSN 1150, or CIS 1141 recommended *Credits 3*

Open Elective *Credits 3*

Business Elective Courses (15 credits)

Choose 5 electives from the list below.

- BENT 2180 - Entrepreneurship *Credits: 3*
- BENT 2170 - Small Business Management & Growth *Credits: 3*
- BENT 2300 - Business Plan *Credits: 3*
- BENT 2098 - Launch a Business *Credits: 3*
- BFIN 1100 - Personal Finance *Credits: 3*
- BFIN 1110 - Financial Literacy *Credits: 3*
- BFIN 1250 - Principles of Banking *Credits: 3*
- BFIN 2100 - Principles of Finance *Credits: 3*
- BFIN 2300 - Investment Principles *Credits: 3*
- BFIN 2110 - Money & Banking *Credits: 3*
- BFIN 2350 - International Finance *Credits: 3*
- BUSN 1100 - Introduction to Business *Credits: 3*
- BUSN 1150 - Business Software Applications *Credits: 3*
- BUSN 2100 - Business Communications *Credits: 3*
- BUSN 2250 - History of American Business *Credits: 3*
- BUSN 2150 - Global Business *Credits: 3*
- BUSN 2310 - Business Law I *Credits: 3*
- BUSN 2320 - Business Law II *Credits: 3*
- BUSN 2340 - Legal Environment of Business *Credits: 3*
- BUSN 2400 - Business Ethics *Credits: 3*
- BUSN 2098 - Business Special Topics *Credits: 3*
- BUSN 2090 - Business Capstone *Credits: 3*
- BUSN 2195 - Business Co-op Internship *Credits: 3*
- BUSN 2095 - Business Practicum *Credits: 3*
- BMGT 2020 - Principles of Management *Credits: 3*
- BMGT 2040 - Managerial Communications *Credits: 3*
- BMGT 2100 - Organizational Behavior *Credits: 3*
- BMGT 2200 - Human Resource Management *Credits: 3*
- BMGT 2260 - Negotiation *Credits: 3*
- BMKT 1060 - Principles of Selling *Credits: 3*
- BMKT 1230 - Principles of Customer Service *Credits: 3*
- BMKT 2010 - Principles of Marketing *Credits: 3*
- BMKT 2070 - Consumer Behavior *Credits: 3*
- BMKT 2080 - Social Media Marketing *Credits: 3*
- BMKT 2140 - International Marketing *Credits: 3*
- BMKT 2160 - Digital Marketing *Credits: 3*
- BMKT 2210 - Sales Management *Credits: 3*
- BMKT 2350 - Public Relations *Credits: 3*
- BMKT 2410 - Principles of Advertising *Credits: 3*
- BMKT 2098 - Special Topics in Marketing *Credits: 3*
- MATH 1010 - Intermediate Algebra *Credits: 3*
- MATH 1500 - Applied Business Math *Credits: 3*
- MATH 1200 - Statistics I *Credits: 3*
- MATH 1610 - Precalculus *Credits: 4*
- MATH 2500 - Calculus for Business and Social Science *Credits: 3*
- ECON 1002 - Principles of Microeconomics *Credits: 3*
- ECON 1001 - Principles of Macroeconomics *Credits: 3*

Total Credits: 60-61

Business Administration: Entrepreneurship Certificate (BENR-CC)

This program will provide students the technical skills associated with becoming an entrepreneur, and/or a small business owner. This program will give students the option of gaining more concentrated knowledge in this discipline. The student will be able to pursue a career or apply courses to an associate in science degree. This certificate will prepare the student with the tools necessary to develop and start their own business. If one is considering opening their own business, regardless of their program of study, this certificate will help them get started.

Learning Outcomes:

- Demonstrate relevant content knowledge in required core business disciplines (accounting, business law, management and organizational behavior, and marketing) and apply concepts in problem solving through identifying and evaluating alternative solutions and offering a well-supported conclusion.
- Recognize proper business acumen and decorum in professional interactions; demonstrate appropriate interpersonal communication and presentation skills and demeanor; demonstrate the ability to use presentation and team interpersonal skills effectively in class presentations.
- Recognize and respond thoughtfully to situations that present ethical dilemma, demonstrating the ability to identify ethical dilemmas and social responsibilities of business, an ability to confront ethical dilemmas, and apply ethical principles to business situations using concepts learned.
- Apply concepts in core business disciplines and critical thinking skills to make sound financial decisions.
- Demonstrate an understanding of the interrelationships between accounting and business courses.
- Recognize the vital role small business plays in the global economy. Develop and apply decision-making skills to strategic business planning

Required Courses

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

ACCT 1250 - Accounting Applications I *Credits: 3*

BENT 2170 - Small Business Management & Growth *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

OR Business Elective - Any course in ACCT, BENT, BMGT, BMKT, BUSN, BFIN, ECON, MATH *Credits: 3*

Total Credits: 18

Business Administration: Entrepreneurship, AS (BENR-AS)

Provides skills in accounting, ethics, finance, law, management, management information systems, and marketing which are needed to succeed in businesses from sole proprietorships through global corporations. This degree will prepare students to enter a variety of positions in business, start their own venture or continue to a bachelor's degree program.

The Entrepreneurship option prepares graduates with the tools necessary to develop and start their own business, grow their existing business or apply entrepreneurial skills to a corporate setting. Students also gain relevant knowledge to enhance their small business management skills.

Business Administration Learning Outcomes:

In addition to the General Education learning outcomes, upon successful completion of all program requirements, graduates will be able to:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand the U.S. legal system and be able to apply the principles to the legal environment in which organizations conduct business.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence-based decisions.
- Apply quantitative and technical skills to analyze problems, formulate and develop solutions using appropriate technology, and effectively communicate results to stakeholders.

Entrepreneurship Learning Outcomes:

- Demonstrate relevant content knowledge in required core business disciplines (accounting, business law, management and organizational behavior, and marketing) and apply concepts in problem solving through identifying and evaluating alternative solutions and offering a well-supported conclusion.
- Recognize proper business acumen and decorum in professional interactions; demonstrate appropriate interpersonal communication and presentation skills and demeanor; demonstrate the ability to use presentation and team interpersonal skills effectively in class presentations.
- Recognize and respond thoughtfully to situations that present ethical dilemma, demonstrating the ability to identify ethical dilemmas and social responsibilities of business, an ability to confront ethical dilemmas, and apply ethical principles to business situations using concepts learned.
- Apply concepts in core business disciplines and critical thinking skills to make sound financial decisions.
- Demonstrate an understanding of the interrelationships between accounting and business courses.
- Recognize the vital role small business plays in the global economy. Develop and apply decision-making skills to strategic business planning.

Business Administration General Education Core (21-23 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 (or higher)*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Business Administration Program Core (24 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3* (recommended for transfer)

OR BFIN 1100 - Personal Finance *Credits: 3*

Open Elective ACCT 1250, BUSN 1150, or CIS 1141 recommended *Credits 3*

Open Elective *Credits 3*

Entrepreneurship Courses (15 Credits)

ACCT 1250 - Accounting Applications I *Credits: 3*

BENT 2170 - Small Business Management & Growth *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

BUSN 2150 - Global Business *Credits: 3*

Directed Elective: choose from disciplines BENT, BFIN, BMGT, BMKT, BUSN, ECON, or MATH *Credits: 3*

Total Credits: 60-62

Business Administration: Finance Certificate (FINC-CC)

This option provides the student with an understanding of the principles and concepts of finance within the general framework of basic general business knowledge. It is designed for the student planning a career in financial or general business management. This program provides the preliminary knowledge required for transfer to a four- year institution and for an entry-level position in finance.

Certificate Learning Outcomes:

- Demonstrate an understanding of basic theory and practice of business administration and finance.
- Demonstrate the ability to read, understand, and prepare standard types of business communications.
- Demonstrate analytical, problem-solving, and decision-making skills applicable to business administration and finance.
- Demonstrate proficiency in the use and interpretation of data and information as applied to the various applications in business administration and finance.

Required Courses

ENG 1010 - Composition *Credits: 3*

BFIN 1250 - Principles of Banking *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3*

BFIN 2300 - Investment Principles *Credits: 3*

BFIN 2350 - International Finance *Credits: 3*

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

ECON 1002 - Principles of Microeconomics *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Total Credits: 27-28

Business Administration: Finance, AS (FINC-AS)

Provides skills in accounting, ethics, finance, law, management, management information systems, and marketing which are needed to succeed in businesses from sole proprietorships through global corporations. This degree will prepare students to enter a variety of positions in business, start their own venture or continue to a bachelor's degree program.

This option provides the student with an understanding of the principles and concepts of finance within the general framework of basic general business knowledge. This program provides the preliminary knowledge required for transfer to a four-year institution and for an entry-level position in finance. Not all classes are fully transferable.

Business Administration Learning Outcomes:

In addition to the General Education learning outcomes, upon successful completion of all program requirements, graduates will be able to:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand the U.S. legal system and be able to apply the principles to the legal environment in which organizations conduct business.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence-based decisions.
- Apply quantitative and technical skills to analyze problems, formulate and develop solutions using appropriate technology, and effectively communicate results to stakeholders.

Finance Learning Outcomes:

- Demonstrate an understanding of basic theory and practice of business administration and finance.
- Demonstrate the ability to read, understand, and prepare standard types of business communications.
- Demonstrate analytical, problem-solving, and decision-making skills applicable to business administration and finance.
- Demonstrate proficiency in the use and interpretation of data and information as applied to the various applications in business administration and finance.

Business Administration General Education Core (21-23 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 (or higher)*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Business Administration Program Core (24 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3 (recommended for transfer)*

OR BFIN 1100 - Personal Finance *Credits: 3*

Open Elective ACCT 1250, BUSN 1150, or CIS 1141 recommended *Credits 3*

Open Elective *Credits 3*

Finance Courses (15 credits)

BFIN 1250 - Principles of Banking *Credits: 3*

BFIN 2110 - Money & Banking *Credits: 3*
BFIN 2300 - Investment Principles *Credits: 3*
BFIN 2350 - International Finance *Credits: 3*
Elective BUS - Business Elective *Credits: 3*

Total Credits: 60-62

Business Administration: Honors, AS (BSAD-AS-HON)

Provides skills in accounting, ethics, finance, law, management, management information systems, and marketing which are needed to succeed in businesses from sole proprietorships through global corporations. This degree will prepare students to enter a variety of positions in business, start their own venture or continue to a bachelor's degree program.

This option provides students with rigorous coursework which will enable student's entry into an AACSB accredited institution. This option focuses on the business core as well as an emphasis on critical Math curricula. A minimum GPA of 3.4 is required for this option.

Business Administration Program Student Learning Outcomes:

In addition to the General Education learning outcomes, upon successful completion of all program requirements, graduates will be able to:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand the U.S. legal system and be able to apply the principles to the legal environment in which organizations conduct business.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence- based decisions.
- Apply quantitative and technical skills to analyze problems, formulate and develop solutions using appropriate technology, and effectively communicate results to stakeholders.

Honors Student Learning Outcomes:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand economic concepts and policies as they relate to both local and global markets.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence- based decisions.
- Apply quantitative solutions to business problem solving.

Business Administration General Education Core (21-23 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 (or higher)*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Business Administration Program Core (24 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3 (recommended for transfer)*

OR BFIN 1100 - Personal Finance *Credits: 3*

Open Elective ACCT 1250, BUSN 1150, or CIS 1141 recommended *Credits 3*

Open Elective *Credits 3*

Business Administration Honors Courses (15 Credits)

MATH 1200 - Statistics I *Credits: 3*

MATH 1500 - Applied Business Math *Credits: 3*

BUSN 2400 - Business Ethics *Credits: 3*

OR MATH 2500 - Calculus for Business and Social Science *Credits: 3*

if MATH 2500 is chosen, must be taken in the final semester

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

Directed Elective: choose from these disciplines BENT, BFIN, BMGT, BMKT, or BUSN (*Recommended: BUSN 2095 BUSN 2195*) *Credits 3*

Total Credits: 60-62

Business Administration: Management Certificate (MGMT-CC)

This Certificate provides students with knowledge, techniques and perspectives in the theory and practice of management. It prepares students for entry level careers in management and administration.

Learning Outcomes:

- Demonstrate an understanding of basic theory and practice of business administration and management.
- Demonstrate the ability to read, understand, and prepare standard types of business communications.
- Demonstrate analytical, problem-solving, and decision-making skills applicable to business administration and management.
- Demonstrate proficiency in the use and interpretation of data and information as applied to the various applications in business administration and management.

Required Courses

ENG 1010 - Composition *Credits: 3*

BUSN 2150 - Global Business *Credits: 3*

BMGT 2200 - Human Resource Management *Credits: 3*

BMGT 2100 - Organizational Behavior *Credits: 3*

OR BMGT 2020 - Principles of Management *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

Business Elective - Any course in ACCT, BMGT, BMKT, BUSN, BFIN, ECON *Credits: 3*

Total Credits: 18

Business Administration: Management, AS (MGMT-AS)

Provides skills in accounting, ethics, finance, law, management, management information systems, and marketing which are needed to succeed in businesses from sole proprietorships through global corporations. This degree will prepare students to enter a variety of positions in business, start their own venture or continue to a bachelor's degree program.

This option provides students with knowledge, techniques and perspectives in the theory and practice of management. It prepares students for entry level careers in management and administration. Not all classes are fully transferable.

Business Administration Learning Outcomes:

In addition to the General Education learning outcomes, upon successful completion of all program requirements, graduates will be able to:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand the U.S. legal system and be able to apply the principles to the legal environment in which organizations conduct business.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence-based decisions.
- Apply quantitative and technical skills to analyze problems, formulate and develop solutions using appropriate technology, and effectively communicate results to stakeholders.

Management Learning Outcomes:

- Demonstrate an understanding of basic theory and practice of business administration and management.
- Demonstrate the ability to read, understand, and prepare standard types of business communications.
- Demonstrate analytical, problem-solving, and decision-making skills applicable to business administration and management.
- Demonstrate proficiency in the use and interpretation of data and information as applied to the various applications in business administration and management.

Program Requirements

Business Administration General Education Core (21-23 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 (or higher)*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Business Administration Program Core (24 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3 (recommended for transfer)*

OR BFIN 1100 - Personal Finance *Credits: 3*

Open Elective ACCT 1250, BUSN 1150, or CIS 1141 recommended *Credits 3*

Open Elective *Credits 3*

Management Courses (15 Credits)

BUSN 2150 - Global Business *Credits: 3*

BMGT 2200 - Human Resource Management *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

Elective BUS - Business Elective *Credits: 3*

Total Credits: 60-62

Business Administration: Marketing Certificate (BMKT-CC)

The Marketing Certificate is meant for either new students or younger professionals wishing to enhance their skills and knowledge through additional education. This certificate programs focuses on fundamental marketing concepts; including pricing, promotional strategies, marketing communications, and the use of digital technologies for marketing purposes.

Learning Outcomes:

- Critically analyze and discuss topics including marketing ethics, the marketing mix and global/domestic marketing strategies.
- Demonstrate the ability to effectively present marketing and promotion plans and to make an effective sales presentation, all of which reflect an understanding of customer behavior, segmentation and product and services positioning.
- Demonstrate the ability to collect, process, and analyze consumer and market data to make informed decisions.
- Demonstrate the ability to create and implement traditional and digital marketing communication strategies.
- Apply the knowledge, concepts, tools necessary to overcome challenges, and issues of marketing in a changing technological landscape.

Required Courses

ENG 1010 - Composition *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BMKT Electives - Choose any two BMKT courses *Credits: 6*

Business Electives - Choose any two courses in ACCT, BMGT, BMKT, BUSN, BFIN, DGA or GRA *Credits: 6*

Total Credits: 18

Business Administration: Marketing, AS (BMKT-AS)

Provides skills in accounting, ethics, finance, law, management, management information systems, and marketing which are needed to succeed in businesses from sole proprietorships through global corporations. This degree will prepare students to enter a variety of positions in business, start their own venture or continue to a bachelor's degree program.

This option provides students with knowledge, techniques, and perspectives in the theory and practice of marketing. The program prepares students for further study and a broad variety of entry level marketing careers and customer service roles. Not all classes are fully transferable.

Business Administration Learning Outcomes:

In addition to the General Education learning outcomes, upon successful completion of all program requirements, graduates will be able to:

- Describe and appraise the economic, political, regulatory, legal, technological, ethical and social contexts of organizations in a global society
- Define and evaluate principles, techniques and major functions of management and business organizations.
- Understand the U.S. legal system and be able to apply the principles to the legal environment in which organizations conduct business.
- Understand, apply and evaluate marketing fundamentals to make tactical decisions to execute business strategy.
- Develop and interpret financial statements using accounting and finance principles to make evidence-based decisions.
- Apply quantitative and technical skills to analyze problems, formulate and develop solutions using appropriate technology, and effectively communicate results to stakeholders.

Marketing Learning Outcomes:

In addition to the General Education learning outcomes, upon successful completion of all program requirements, graduates will be able to:

- Critically analyze and discuss topics including marketing ethics, the marketing mix and global/domestic marketing strategies.
- Demonstrate the ability to effectively present marketing and promotion plans and to make an effective sales presentation, all of which reflect an understanding of customer behavior, segmentation and product and services positioning.
- Demonstrate the ability to collect, process, and analyze consumer and market data to make informed decisions.
- Demonstrate the ability to create and implement traditional and digital marketing communication strategies.
- Apply the knowledge, concepts, tools necessary to overcome challenges, and issues of marketing in a changing technological landscape.

Program Requirements

Business Administration General Education Core (21-23 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 (or higher)*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Business Administration Program Core (24 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3* (recommended for transfer)

OR BFIN 1100 - Personal Finance *Credits: 3*

Open Elective ACCT 1250, BUSN 1150, or CIS 1141 recommended *Credits 3*

Open Elective *Credits 3*

Marketing Electives (15 Credits)

Choose 5 of the following courses:

- BMKT 2140 - International Marketing *Credits: 3*
- BMKT 2195 - Field Experience I *Credits: 3*
- BMKT 2350 - Public Relations *Credits: 3*
- BMKT 2410 - Principles of Advertising *Credits: 3*
- BMKT 1060 - Principles of Selling *Credits: 3*
- BMKT 1230 - Principles of Customer Service *Credits: 3*
- BMKT 2070 - Consumer Behavior *Credits: 3*
- BMKT 2080 - Social Media Marketing *Credits: 3*
- BMKT 2210 - Sales Management *Credits: 3*
- BMKT 2160 - Digital Marketing *Credits: 3*
- Elective BUS - Business Elective *Credits: 3*

Total Credits: 60-62

Business Intelligence, AS (BSIN-AS)

The Business Intelligence Program is committed to creating critical thinkers, innovative solution seekers and well-rounded business professionals. Business intelligence (BI) combines business knowledge with data analytics, data modeling, analytic tools, and organizational infrastructure to aid businesses in making data-informed decisions. Degree candidates face the rigors of a business education that focuses on combining traditional business modalities with innovative data technology to produce graduates who are modern day leaders.

As a Business Intelligence degree candidate, you will:

- Develop requisite knowledge in the building blocks of business: accounting, finance, human capital, economics, strategy and communication.
- Gain an understanding of business in the global environment.
- Form effective working relationships with students and faculty in the areas of accounting, general business management, marketing and sales, and office management.
- Develop programming and data analytic skills

Learning Outcomes:

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

- Explain the basics building blocks of a business.
- Apply analytic techniques to real-world data using statistics and programming languages.
- Develop the ability to make data-driven decisions.
- Create data visualizations with analytic platforms
- Demonstrate the ability to communicate effectively both verbally and in writing.
- Develop leadership skills and critical decision-making techniques.
- Demonstrate ability to complete individual and team-based assignments.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*
MATH 1200 - Statistics I *Credits: 3*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*
 OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
ECON 1001 - Principles of Macroeconomics *Credits: 3*
 OR ECON 1002 - Principles of Microeconomics *Credits: 3*
BUSN 2100 - Business Communications *Credits: 3*
 OR COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Required Courses (42 credits)

MATH 2200 - Statistics II *Credits: 3*
CIS 1141 - Introduction to Management Information Systems *Credits: 3*
CSC 1231 - Database Development and Design I *Credits: 4*
ACCT 1130 - Principles of Financial Accounting *Credits: 3*
BMGT 2020 - Principles of Management *Credits: 3*
BMKT 2010 - Principles of Marketing *Credits: 3*
BFIN 2100 - Principles of Finance *Credits: 3*
DTS 2201 - Programming in Data Science *Credits: 3*
DTS 2215 - Data Ethics and Security *Credits: 3*
DTS 2220 - Introduction to Machine Learning *Credits: 3*
DTS 2290 - Capstone Research *Credits: 3*
ECON 1001 - Principles of Macroeconomics *Credits: 3*
 OR ECON 1002 - Principles of Microeconomics *Credits: 3*
BMKT 2160 - Digital Marketing *Credits: 3*
DTS 2258 - Data Journalism *Credits: 3*

Total Credits: 63-64

Business Office Technology: Administrative Support Certificate (ADSS-CC-BOT)

This program is recommended for students interested in upgrading their skills to become more marketable in an increasingly technological work environment. Coursework focuses on business communications and computer applications to provide students with the skills necessary to secure entry-level administrative employment opportunities.

Learning Outcomes:

Upon successful completion of all Administrative Support Specialist certificate program requirements, graduates will:

- Demonstrate keyboarding and data-entry speed and accuracy, including proofreading, according to industry accepted standards.
- Create and modify standard types of business communications in both printed and electronic forms.
- Acquire up-to-date skills in the following areas: accounting, word processing, spreadsheet, database, project management, presentation, personal information management, web technologies, and speech recognition.
- Show effective time management and organizational skills.
- Display strong interpersonal and human relations skills required for success in a professional setting including: professionalism, adaptability to change, initiative, confidentiality, positive attitude and human relations and creativity.
- Demonstrate decision-making ability; acquire and utilize information to solve problems; demonstrate computer knowledge; communication skills and business procedures using ability-based projects; and demonstrate responsibility, positive attitude, self-management, honesty and confidentiality.
- Contribute as a productive team member in a culturally and intellectually diverse global environment.

At the time of publication, this certificate is a WIOA-approved program:

http://www1.ctdol.state.ct.us/etc/program_det.asp?strProgPrevious=proglis&intProgramID=1492

Upon completion of this option, graduates gain direct entry into the local general administrative support job market in such positions (titles vary depending on the organization) as: Executive Assistant, Administrative Assistant, Project Coordinator/Project Assistant, Administrative Specialist/Associate, Program Assistant, Accounting Clerk, Office Manager, Office Clerk, School Secretary, Sales/Marketing Assistant, Human Resources Assistant, Customer Service Representative, Property Management Assistant, Mortgage Assistant, Claims Processor, Dispatcher, Data Entry Verification Specialist, and Receptionist.

Upon completion of this option, graduates can elect to take the following industry-recognized certifications:

- Microsoft Office Specialist (certifications by exam per application)
- Certified Administrative Professional (CAP)

Required Courses

BOT 1101 - Keyboarding and Document Production I *Credits: 3*

BOT 1604 - Office Accounting *Credits: 3*

OR ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

OR BMGT 2040 - Managerial Communications *Credits: 3*

BOT 2200 - Digital Workplace Technologies *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

BOT 2095 - Cooperative Work Experience *Credits: 3*

OR BOT 2195 - Administrative Practicum *Credits: 4*

Choose 2 Applications Electives *Credits: 6*

- BOT 1102 - Keyboarding and Document Production II *Credits: 3*
- BOT 1307 - Word Processing Applications *Credits: 3*
- BOT 2109 - Integrated Applications *Credits: 3*
- CSA 1110 - Introduction to Software Applications *Credits: 3*
- CIS 1001 - Introduction to Computers *Credits: 3*

Total Credits: 24-25

Business Office Technology: Customer Service Specialist Certificate (CSSS-CC-BOT)

This program prepares students for entry-level customer service representative positions. It provides training in technological and soft skills required for excellence in customer service satisfaction.

Learning Outcomes:

Upon successful completion of all Office Support Specialist certificate program requirements, graduates will:

- Key and format business documents and demonstrate proofreading skills.
- Demonstrate technical proficiency in office applications software including: word processing, personal information management, spreadsheet, database management, presentation, speech recognition, and webconferencing tools.
- Be able to resolve customer-focused problems in a timely fashion.
- Exhibit verbal, non-verbal and written communication skills.
- Demonstrate effective use of soft skills including: professionalism, adaptability to change, initiative, confidentiality, positive attitude and human-relations and creativity.
- Practice ethical behavior and incorporate the principles of honesty and integrity.
- Apply critical-thinking strategies and effective decision-making techniques to solve problems.
- Demonstrate self-management skills, including time management and organization.
- Contribute as a productive team member in a culturally and intellectually diverse global environment.

Required Courses

BOT 1101 - Keyboarding and Document Production I *Credits: 3*

OR BOT 1307 - Word Processing Applications *Credits: 3*

BOT 2200 - Digital Workplace Technologies *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

OR BMGT 2040 - Managerial Communications *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

OR BMKT 2200 - Sales *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

Total Credits: 18

Business Office Technology: Electronic Health Records Specialist (EHRS-CC-BOT)

The extensive use of electronic health records by all types of healthcare providers will lead to an increased need for medical administrative professionals to organize and manage the associated information in all areas of the healthcare industry. According to the Bureau of Labor Statistics, employment of medical records and health information technicians is expected to increase by 8 percent from 2019 to 2029, faster than the average for all occupations. This growth is a direct result of the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009, which was passed to promote and expand the adoption of health information technology as well as an aging workforce in this specialty area, which is promoting continued demand for these highly skilled health care professionals.

Students will demonstrate proficiency via hands-on Labs, software simulations and integrated projects.

Learning Outcomes:

Upon successful completion of this certificate, graduates will be able to

- Demonstrate advanced keyboarding speed and accuracy using industry accepted methods
- Demonstrate competency in the use of standard medical office equipment including practice management systems
- Use the common features and functions of specialized EHR applications
- Review electronic health records for timeliness, completeness, accuracy, and appropriateness of health data
- Protect health information for confidentiality, authorized release of information, and data security
- Demonstrate professionalism and positive work habits necessary for success in today's medical office

Upon completion of this option, graduates can elect to take the following national industry-recognized certifications:

- Certified Electronic Health Record Specialist (CEHRS) via the National Healthcareer Association (NHA)

Required Courses

BOT 1101 - Keyboarding and Document Production I *Credits: 3*
BOT 1800 - Medical Terminology and Anatomy *Credits: 3*
HIMT 2110 - Health Information Management Principles *Credits: 3*
BOT 1801 - Medical Coding I *Credits: 3*
BOT 2808 - Medical Practice Management Applications *Credits: 3*
BOT 2810 - Electronic Health Records *Credits: 3*

Total Credits: 18

Business Office Technology: Legal Administrative Support Specialist (LASS-CC-BOT)

The duties of a legal administrative support specialist vary depending on the specialty of the law office. However, all legal administrative support professionals should be able to: prepare time sheets indicating the hours an attorney spends on behalf of various clients; prepare clients' fee and disbursement statements; and prepare appropriate documents for real estate, probate, corporate, tax, civil or criminal litigation, and domestic matters. Knowledge of legal terminology is essential for anyone seeking a career as a legal administrative support specialist.

Learning Outcomes:

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

- Develop effective oral, written, and technology skills for a career in the legal environment
- Differentiate between various types of legal specialties such as law offices, courts, corporate, and others
- Proofread and edit legal documents accurately
- Demonstrate skills in law office procedures and legal document processing and distribution

Required Courses

BOT 1101 - Keyboarding and Document Production I *Credits: 3*

OR BOT 1307 - Word Processing Applications *Credits: 3*

BOT 1604 - Office Accounting *Credits: 3*

OR ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

OR BMGT 2040 - Managerial Communications *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

BOT 2200 - Digital Workplace Technologies *Credits: 3*

BUSN 2320 - Business Law II *Credits: 3*

BOT 2701 - Legal Document Production *Credits: 3*

OR BOT 1102 - Keyboarding and Document Production II *Credits: 3*

BOT 2702 - Legal Administrative Procedures *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

BOT 2095 - Cooperative Work Experience *Credits: 3*

OR BOT 2195 - Administrative Practicum *Credits: 4*

Total Credits: 30-31

Business Office Technology: Medical Insurance Specialist (MCOD-CC-BOT)

With the numerous changes in the health care industry due to federal incentives for the conversion to electronic automation of managing healthcare information the Medical Insurance Specialist will continue to play an important part in the health care industry through proper documentation oversight. This certificate program is designed to prepare students to manage the medical insurance specialist process along with coding and billing insurance claims in doctors' offices, hospitals, HMOs and other health care facilities.

Learning Outcomes:

Upon successful completion of this certificate, graduates will be able to

- Create and modify standard types of business communications in both printed and electronic forms.
- Demonstrate strong interpersonal and human relations skills required for success in a professional setting.
- Demonstrate proficiency in the use of ICD-10-CM (International Classification of Diseases, Tenth Revision, Clinical Modification) and CPT (Current Procedural Terminology), HCPCS (Healthcare Common Procedure Coding System) coding in entering and/or processing medical insurance claims.
- Acquire up-to-date technology skills using medical office computer applications.
- Understand and adhere to the importance of federal regulations, medical ethics, legal implications, and patient confidentiality when handling protected health information.

Upon completion of this option, graduates can elect to take the following national industry-recognized certifications:

- Certified Professional Coder (CPC) via the American Association of Professional Coders (AAPC)
- Certified Professional Biller (CPB) via the American Association of Professional Coders (AAPC)
- Certified Billing and Coding Specialist (CBCS) via the National Healthcareer Association (NHA)
- Certified Medical Reimbursement Specialist (CMRS) via American Medical Billing Association (AMBA)

Required Courses

BOT 1101 - Keyboarding and Document Production I *Credits: 3*
BOT 1800 - Medical Terminology and Anatomy *Credits: 3*
BOT 2200 - Digital Workplace Technologies *Credits: 3*
BOT 1801 - Medical Coding I *Credits: 3*
BOT 1802 - Medical Coding II *Credits: 3*
BIO 1100 - Principles of the Human Body *Credits: 3*
BIO 1100L - Principles of the Human Body Lab *Credits: 1*
BOT 2807 - Foundations/Management of Medical Insurance *Credits: 3*

Total Credits: 22

Business Office Technology: Medical Option, AS (MEDO-AS-BOT)

In today's fast-paced, technology-driven workplace, administrative support professionals are highly valued members of any organization. They must use technology to originate, access, manage and manipulate information. In addition, they function independently in initiating office communications, accessing and tracking records and information, and problem-solving the various details of the day-to-day office operations. As contributing members of management teams, administrative professionals must assume a high level of responsibility and work independently to exercise initiative and judgment and to adapt to new technologies and procedures.

Highly skilled administrative medical professionals are essential in any health care setting. This option prepares students with the competencies and knowledge necessary to excel and contribute as a positive team member in the medical administrative environment. Students become proficient in word processing, medical terminology, computerized communication, health information principles, medical coding and reimbursement, and state-of-the-art medical software simulations integrating practice management and Electronic Health Records applications.

The national and local job market continues to be strong for students enrolled in this option. According to the Bureau of Labor Statistics, employment of medical records and health information technicians is expected to increase by 8 percent from 2019 to 2029, faster than the average for all occupations. This growth is a direct result of the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009, which was passed to promote and expand the adoption of health information technology as well as an aging workforce in this specialty area, which is promoting continued demand for these highly skilled health care professionals. Subsequently, the extensive use of electronic health records by all types of healthcare providers will lead to an increased need for medical administrative professionals to organize and manage the associated information in all areas of the healthcare industry.

Learning Outcomes:

Upon successful completion of all Business Office Technology degree program requirements, graduates will be able to:

- Demonstrate keyboarding and data-entry speed and accuracy, including proofreading, using industry accepted standards.
- Create and modify standard types of business communications in both printed and electronic forms.
- Acquire up-to-date skills in the following areas: accounting, word processing, spreadsheet, database, project management, presentation, personal information management, web technologies, and speech recognition.
- Show effective time management and organizational skills.
- Display strong interpersonal and human relations skills required for success in a professional setting including: professionalism, adaptability to change, initiative, confidentiality, positive attitude and human-relations and creativity.
- Demonstrate decision-making ability; acquire and utilize information to solve problems; demonstrate computer knowledge; communication skills and business procedures using ability-based projects; and demonstrate responsibility, positive attitude, self-management, honesty and confidentiality.
- Contribute as a productive team member in a culturally and intellectually diverse global environment.

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

- Define and apply medical terminology.
- Execute medical office procedures used in today's technological work environment.
- Understand and perform medical practice management/patient accounting operations.
- Demonstrate accuracy in medical billing and coding procedures.
- Understand and adhere to the importance of federal regulations, medical ethics, legal implications, and patient confidentiality when handling protected health information.

Upon completion of this option, graduates can elect to take the following national industry-recognized certifications:

- Certified Professional Coder (CPC) via the American Association of Professional Coders (AAPC)
- Certified Professional Biller (CPB) via the American Association of Professional Coders (AAPC)
- Certified Electronic Health Record Specialist (CEHRS) via the National Healthcareer Association (NHA)
- Certified Billing and Coding Specialist (CBCS) via the National Healthcareer Association (NHA)
- Certified Medical Reimbursement Specialist (CMRS) via American Medical Billing Association (AMBA)

General Education Courses (22-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1100 - Principles of the Human Body *Credits: 3* AND BIO 1100L Lab *Credits: 1*

OR BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

SOC 1001 - Principles of Sociology *Credits: 3*

OR PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Core Courses (24-25 credits)

BOT 1101 - Keyboarding and Document Production I *Credits: 3*

BOT 1604 - Office Accounting *Credits: 3*

OR ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BOT 2200 - Digital Workplace Technologies *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

BOT 2095 - Cooperative Work Experience *Credits: 3*

OR BOT 2195 - Administrative Practicum *Credits: 4*

OR CIS 1143 - Project Management *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

OR BMGT 2200 - Human Resource Management *Credits: 3*

Application Electives:

Choose 2 from the following list:

- BOT 1102 - Keyboarding and Document Production II *Credits: 3*
- BOT 1307 - Word Processing Applications *Credits: 3*
- BOT 2109 - Integrated Applications *Credits: 3*
- CSA 1110 - Introduction to Software Applications *Credits: 3*

Medical Option Required Courses (15 credits)

BOT 1800 - Medical Terminology and Anatomy *Credits: 3*

OR HIMT 1000 - Medical Terminology *Credits: 3*

BOT 1801 - Medical Coding I *Credits: 3*

BOT 1802 - Medical Coding II *Credits: 3*

BOT 2808 - Medical Practice Management Applications *Credits: 3*

OR HIMT 2110 - Health Information Management Principles *Credits: 3*

BOT 2807 - Foundations/Management of Medical Insurance *Credits: 3*

OR BOT 2810 - Electronic Health Records *Credits: 3*

Total Credits: 61-63

Business Office Technology: Office Application Skills Update (OFFC-CC-BOT)

Office application and computer technology skills are essential in today's workplace. This certificate is designed for office professionals as well as those returning to the workforce to enhance their computer application skills. It provides students an opportunity to improve their employment prospects and advance in their careers. Students utilize state of the art software applications including word processing, personal information management, spreadsheet, database management, presentation, speech recognition, and web conferencing tools.

Learning Outcomes:

Upon successful completion of all Office Applications Skills Update certificate program requirements, graduates will be able to:

- Key and format business documents and demonstrate proofreading skills.
- Demonstrate technical proficiency in office applications software including: word processing, personal information management, spreadsheet, database management, presentation, speech recognition, and web conferencing tools.
- Practice ethical behavior and incorporate the principles of honesty and integrity.
- Apply critical-thinking strategies and effective decision-making techniques to solve problems.
- Demonstrate self-management skills, including time management and organization.

This program provides high quality instruction using state-of-the-art computer technology and current software programs to prepare competent, skilled, and professional office workers who are able to meet the demands of business or higher education.

Required Courses

BOT 1101 - Keyboarding and Document Production I *Credits: 3*

OR BOT 1307 - Word Processing Applications *Credits: 3*

BOT 2200 - Digital Workplace Technologies *Credits: 3*

CSA 1110 - Introduction to Software Applications *Credits: 3*

OR CSA 2112 - Database Applications *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

Total Credits: 12

Business Office Technology: Office Option, AS (OFFC-AS-BOT)

In today's fast-paced, technology-driven workplace, administrative support professionals are highly valued members of any organization. They must use technology to originate, access, manage and manipulate information. In addition, they function independently in initiating office communications, accessing and tracking records and information, and problem-solving the various details of the day-to-day office operations. As contributing members of management teams, administrative professionals must assume a high level of responsibility and work independently to exercise initiative and judgment and to adapt to new technologies and procedures.

This option provides students with the skills necessary to excel in this rapidly changing and challenging office environment. Students will become skilled in keyboarding, word processing, business and computerized communication, and office applications and procedures.

Graduates of this program have gained entry-level employment in a variety of administrative support settings throughout the local communities. Graduates have recently been placed in positions at colleges and universities, insurance carriers, elementary and secondary schools, construction companies, municipalities, home health and social organizations, etc.

Learning Outcomes:

Upon successful completion of all Business Office Technology degree program requirements, graduates will be able to:

- Demonstrate keyboarding and data-entry speed and accuracy, including proofreading, using industry accepted standards.
- Create and modify standard types of business communications in both printed and electronic forms.
- Acquire up-to-date skills in the following areas: accounting, word processing, spreadsheet, database, project management, presentation, personal information management, web technologies, and speech recognition.
- Show effective time management and organizational skills.
- Display strong interpersonal and human relations skills required for success in a professional setting including: professionalism, adaptability to change, initiative, confidentiality, positive attitude and human relations and creativity.
- Demonstrate decision-making ability; acquire and utilize information to solve problems; demonstrate computer knowledge; communication skills and business procedures using ability-based projects; and demonstrate responsibility, positive attitude, self-management, honesty and confidentiality.
- Contribute as a productive team member in a culturally and intellectually diverse global environment.

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

- Exhibit verbal, non-verbal and written communication skills.
- Perform advanced business application skills.
- Develop a portfolio that showcases talents, promotes self-evaluation, and provides validation for employment or promotion.
- Apply business concepts and critical thinking skills to make sound professional and ethical decisions in the workplace.

Upon completion of this option, graduates can elect to take the following industry-recognized certifications:

- Microsoft Office Specialist (certifications by exam per application)
- Certified Associate in Project Management (CAPM)
- Certified Administrative Professional (CAP)

General Education Courses (22-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

SOC 1001 - Principles of Sociology *Credits: 3*

OR PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR BUSN 2100 - Business Communications *Credits: 3*

BIO 1100 - Principles of the Human Body *Credits: 3* **AND** BIO 1100L - Principles of the Human Body Lab *Credits: 1*

OR BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

CCS 1001 - College & Career Success *Credits: 3*

Program Core Courses (24-25 credits)

BOT 1101 - Keyboarding and Document Production I *Credits: 3*

BOT 1604 - Office Accounting *Credits: 3*

OR ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BOT 2200 - Digital Workplace Technologies *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

BOT 2095 - Cooperative Work Experience *Credits: 3*

OR BOT 2195 - Administrative Practicum *Credits: 4*

OR CIS 1143 - Project Management *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

OR BMGT 2200 - Human Resource Management *Credits: 3*

Application Electives

Choose 2 from the following list:

- BOT 1102 - Keyboarding and Document Production II *Credits: 3*
- BOT 1307 - Word Processing Applications *Credits: 3*
- BOT 2109 - Integrated Applications *Credits: 3*
- CSA 1110 - Introduction to Software Applications *Credits: 3*

Office Option Required Courses (15 credits)

CIS 1001 - Introduction to Computers *Credits: 3*

OR CIS 1002 - Foundations of Computing *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

OR ENG 1030 - Composition II and Non-fiction Texts *Credits: 3*

CSA 2112 - Database Applications *Credits: 3*

OR CSA 2113 - Advanced Applications *Credits: 3*

Business/Ethics Electives

Choose 2 from the following list:

- BUSN 2310 - Business Law I *Credits: 3*
- BUSN 2340 - Legal Environment of Business *Credits: 3*
- BMGT 2040 - Managerial Communications *Credits: 3*
- BENT 2180 - Entrepreneurship *Credits: 3*
- BMKT 2010 - Principles of Marketing *Credits: 3*
- BMKT 2200 - Sales *Credits: 3*
- BUSN 2400 - Business Ethics *Credits: 3*
- PHIL 1012 - Bioethics *Credits: 3*

Total Credits: 61-64

Business Office Technology: Social Media Specialist Certificate (SOCM-CC-BOT)

This certificate program combines digital technology, communications and marketing coursework to equip graduates with the skills they need in this fast-changing field. It is designed to provide relevant training in key areas such as website design, social media, consumer behavior, search engine optimization, and project management.

Working in the social media field requires flexibility and the ability to juggle multiple tasks at once. The Social Media Specialist may be responsible for developing and implementing a company's social media strategy in order to increase its online presence and improve marketing and sales efforts. The understanding of how search, content and social media all work together is important along with attention to detail. A typical day may require you to monitor tweets, respond to posts, analyze trends and engage with brand advocates. Customer engagement is at the top of the list so skills such as building creative content and understanding different media formats that resonate with target audiences are important.

The Social Media Specialist certificate can boost a resume, enhance an existing degree or provide a foundation for pursuing a degree in digital marketing, public relations, communications, entrepreneurship and business.

Learning Outcomes:

Upon successful completion of all Social Media Specialist certificate program requirements, graduates will:

- Build and execute social media strategies through competitive research, data interpretation, benchmarking, messaging, and audience identification.
- Implement and maintain an organization's social media strategy, developing brand awareness and boosting product adoption.
- Maintain a website and use related content management tools.
- Report on the process of applying various social media tactics using digital and media tracking tools.
- Develop social media marketing campaigns.
- Demonstrate professionalism and positive work habits necessary for success in today's business world.

Required Courses

CIS 1002 - Foundations of Computing *Credits: 3*

COMM 1306 - Social Media in Contemporary Society *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

OR COMM 1304 - Introduction to Public Relations *Credits: 3*

OR BMKT 2080 - Social Media Marketing *Credits: 3*

CSC 1271 - Web Development and Design I *Credits: 4*

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

Total Credits: 19

Business Studies - TAP/CSCU Transfer Degree, AA (BSAD-AA-TAP)

CSCU Pathway Transfer, A.A. degree programs are for Connecticut Community College students who wish to transfer to one of the Connecticut State Universities or Charter Oak without either losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline. Community College students can 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. This Business Studies Associate Degree serves as the single community college degree to all of the State University and Charter Oak State College business majors listed below. Students will declare a specific field when they transfer.

With this degree you will be able to transfer to the following majors:

At Central Connecticut State University (*CCSU requires a minimum GPA of 2.5*):

- Accounting, B.S.
- Finance, B.S.
- Management, B.S.
- Marketing, B.S.

At Eastern Connecticut State University:

- Accounting, B.S.
- Business Administration, B.S.
- Finance, B.S.

At Southern Connecticut State University:

- Accounting, B.S.
- Business Administration- Business Economics Concentration, B.S.
- Business Administration- Finance Concentration, B.S.
- Business Administration- Management, B.S.
- Marketing, B.S.

At Western Connecticut State University:

- Accounting, B.S.
- Business Management- Financial Management Option, B.B.A.
- Business Management- Supervisory Management Option, B.B.A.
- Marketing, B.B.A.

At Charter Oak State College:

- Business Administration, B.A.

Learning Outcomes:

Upon successful completion of all courses in the program, students will be able to:

- demonstrate both accounting and finance concepts as applied to the sound fiscal management of a business enterprise
- demonstrate various micro- and macroeconomic principles and their influence on the organizational decision-making process
- demonstrate marketing's role in the development of a successful business strategy
- demonstrate the impact of leadership, employee behavior and organizational culture in attaining organizational goals and objectives
- demonstrate both the ethical and legal implications of managerial decisions and the effect of those decisions on organizational stakeholders
- demonstrate the integration of knowledge and apply learned skills for real-world business decision making
- demonstrate group dynamics and the benefits of a team-based approach in business

Framework Courses (30-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
ECON 1001 - Principles of Macroeconomics *Credits: 3*
Elective WRIX - Written Communication II Course *Credits: 3*
Elective HISX - Historical Knowledge Course *Credits: 3*
Elective ORAX - Oral Communication Course *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30-31 credits)

Minimum grades are required for transfer, students should speak with their advisor.

ECON 1002 - Principles of Microeconomics *Credits: 3*
ACCT 1130 - Principles of Financial Accounting *Credits: 3*
ACCT 1170 - Principles of Managerial Accounting *Credits: 3*
MATH 1500 - Applied Business Math *Credits: 3*
 OR MATH 2600 - Calculus I *Credits: 4*
 OR MATH 2500 - Calculus for Business and Social Science *Credits: 3*
BMKT 2010 - Principles of Marketing *Credits: 3*
BMGT 2020 - Principles of Management *Credits: 3*
 OR BMGT 2100 - Organizational Behavior *Credits: 3*
BFIN 2100 - Principles of Finance *Credits: 3*
BUSN 2310 - Business Law I *Credits: 3*
 OR BUSN 2340 - Legal Environment of Business *Credits: 3*
BUSN 2100 - Business Communications *Credits: 3*
 OR BMGT 2040 - Managerial Communications *Credits: 3*
Unrestricted Elective *Credits 3*

Total Credits: 60-65

Cannabis Studies Certificate (CANB-CC)

The Cannabis Studies certificate program will explore the legal challenges confronting cannabis farming, production, and consumer use, and provide instruction in cannabis cultivation techniques and cannabinoid/THC extraction processes. Students will study the farming economics of land, labor, and capital; governmental regulations and laws affecting small business; and developing opportunities in Western and alternative medicines and therapies. The 18-credit certificate includes classes in horticulture, law and policy, alternative medicine, botany, business, and communications.

Learning Outcomes:

Learners who complete the Cannabis Studies Certificate will:

- Understand the common challenges with cannabis production and how to address those challenges.
- Understand the process for growing cannabis and techniques of seeding, cloning cuttings, pruning and planting, postharvest handling, and cannabinoid/THC extraction.
- Be able to describe the legal challenges confronting cannabis farming, production, and consumer use.
- Understand how to develop an effective presentation for an informative, persuasive, or special occasion purpose talk related to the cannabis industry.
- Explain the relationship of business to society and the individual. This includes the interrelationships with law and politics and an understanding of governmental regulations and laws affecting small business.
- Recognize the major economic resources of the business production process: land, labor, and capital. Understand how to synergistically combine these for financial success.
- Determine methods for objectively evaluating current and future traditional western and alternative medicines and therapies.

Required Courses

HORT 1200 - Horticulture of Cannabis *Credits: 3*

CANB 1270 - Cannabis Law and Policy *Credits: 3*

BUSN 1100 - Introduction to Business *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

HLTH 1021 - A Survey of Alternative Healthcare *Credits: 3*

COM* 176 - Business and Professional Communication *Credits: 3*

OR BMGT 2040 - Managerial Communications *Credits: 3*

Total Credits: 18

Chemistry Studies - TAP/CSCU Transfer Degree, AA (CHEM-AA-TAP)

Chemistry is the branch of science that deals with the composition, structure, properties, and reaction of matter. Chemistry is a physical science within the STEM (Science, Technology, Engineering, and Mathematics) area of study. The Chemistry Studies program integrates scientific knowledge, laboratory skills and critical thinking. This program provides a solid grounding in Chemistry, as well as Mathematics and Physics, in preparation for continued study at junior-level status at a baccalaureate institution.

Learning Outcomes:

- Employ chemical principles by utilizing critical thinking and problem-solving skills in the solution of chemistry problems in the areas of general chemistry and organic chemistry.
- Plan and implement data collection strategies appropriate to a particular scientific question, record and present the data clearly, and analyze the results accurately.
- Recall and employ the proper procedures and regulations for safe handling, use, and disposal of chemicals.

Students who earn an Associate in Arts degree in Chemistry Studies can transfer their degree to either the Central Connecticut State University (CCSU), Southern Connecticut State University (SCSU) or Western Connecticut State University (WCSU). Students will be credited as meeting the General Education requirements. Students must remain in the corresponding Chemistry major program for the following bachelor's degrees:

CCSU: Chemistry - American Chemical Society (ACS) Certified, Bachelor of Science

CCSU: Chemistry - General Program, B.S.

SCSU: Chemistry - ACS Certified, B.S.

SCSU: Chemistry - non-ACS Certified, B.S.

WCSU: Chemistry - ACS Certified, B.S.

WCSU: Chemistry - non-ACS Certified, B.S.

Full-time students may complete this program in two years. Most courses may not be taken online, and some courses are offered during summer sessions. Students who transfer should be able to graduate in 2 years. This assumes a student follows the degree pathway plan created for the student at the time of admission to a four-year school listed above. There are laboratory fees associated with most program courses.

Framework Courses (33-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

CHEM 1210 - General Chemistry I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

CHEM 1220 - General Chemistry II *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (29 credits)

CHEM 2310 - Organic Chemistry I *Credits: 4*

CHEM 2320 - Organic Chemistry II *Credits: 4*

MATH 2610 - Calculus II *Credits: 4*

PHYS 2201 - Calculus-Based Physics I *Credits: 4*

OR PHYS 1201 - General Physics I *Credits: 4*

PHYS 2202 - Calculus-Based Physics II *Credits: 4*

OR PHYS 1202 - General Physics II *Credits: 4*

* Students who will transfer into an ACS certified program or WCSU's non-ACS certified program should take PHYS 2201 and PHYS 2202.

Unrestricted Free Electives (9 credits)

Students should consider beginning or completing work on foreign language requirements (at CCSU and WCSU) not already met in high school and beginning work on a minor (required at CCSU in some majors - up to 9 credits can be completed at the community college).

Total Credits: 62-63

Civic Engagement Certificate (CIVC-CC)

The Certificate in Civic Engagement will prepare students for careers designed to positively impact the civic well-being of their communities. This will be accomplished through a diverse array of coursework and a hands-on practicum/internship focusing on sensitizing students to the needs of the community. The Civic Engagement Certificate has a multi-disciplinary curriculum designed to prepare students to communicate effectively, make sound decisions, and effect change in their communities.

The Civic Engagement certificate consists of 18 credits made up of 15 required general education courses and culminating in a 3-credit practicum which includes 80 hours of field work of the student's choosing in consultation with his or her advisor and the Director of the Civic Engagement Institute on the Farmington campus. Employers/businesses have become interested in socially responsible graduates. Students receiving this certificate meet that need and interest because they are prepared for the important role of addressing community needs and practicing civic responsibility.

Learning Outcomes:

- Define civic engagement and identify concrete examples of it both in the classroom and in the community.
- Describe their civic activity through an internship or practicum.
- Understand the interdisciplinary nature of required courses as it relates to civic engagement.
- Explain some of the community needs in terms of the social problems that exist in communities across the area.

Required Courses

ENG 1010 - Composition *Credits: 3*

POLS 1002 - American Government *Credits: 3*

HIST 1015 - US History to 1877 *Credits: 3*

CENG 2095 - Civic Engagement Practicum *Credits: 3*

Gen Ed Elective *Credits: 3 (In consultation with CEI Director or Faculty Advisor)*

Gen Ed Elective *Credits: 3 (In consultation with CEI Director or Faculty Advisor)*

Total Credits: 18

Clean Water Management Certificate (CWTR-CC)

The Clean Water Management Certificate will train students to meet the skill and knowledge specifications required by higher level water pollution control facility operators in one of the more than 100 public and private plants in the state following the guidelines of the CT Department of Energy and Environmental Protection (DEEP). The program will provide classroom and laboratory-based academic preparation for the Class I, II, III and IV Wastewater Treatment Plant Operator certification examinations administered by the DEP. Specialized wastewater courses may be offered at local municipal wastewater treatment plants.

Learning Outcomes:

- Working knowledge of wastewater treatment operations including preliminary, primary, secondary, tertiary, nutrient removal and disinfection treatment, as well as the handling and disposal of sludge/biosolids
- Working knowledge of the levels of treatment necessary to protect aquatic life and human health in Long Island Sound and other Connecticut surface waters and groundwaters
- Working knowledge of the laboratory test methods necessary to ensure the proper operation of wastewater treatment plants, protect surface and groundwater quality, as well as human health, and meet all state and federal regulatory and permit requirements
- Knowledge to become eligible to take and pass the Class I, II, III or IV Connecticut DEP Wastewater Treatment Plant Operator Certification Examinations

Required Courses

CWM 1006 - Introduction to Utility Management *Credits: 3*
CWM 1008 - Clean Water Chemistry, Biology & Math *Credits: 4*
CWM 1011 - Clean Water I *Credits: 3*
 OR CWM 1012 - Clean Water II *Credits: 3*
CWM 1012 - Clean Water II *Credits: 3*
 OR CWM 1013 - Clean Water III *Credits: 3*
ENV 1100 - Environmental Regulations *Credits: 3*
Biology Elective *Credits: 4*
Elective CWM/ENV/EVS/WMT *Credits: 3*
Elective CWM/ENV/EVS/WMT *Credits: 3*

Total Credits: 26

Communication Studies - TAP/CSCU Transfer Degree, AA (COMM-AA-TAP)

Community College students can 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. (<https://www.ct.edu/transfer/tickets>)

Program Objectives:

- Complete an Associate of Arts degree in Communication Studies.
- Transfer seamlessly into a Bachelor of Arts/Science degree program in Communication/ Strategic Communication/ Media Studies/ Media Arts with junior-level status in the receiving CSCU institution as part of the CSCU Transfer Tickets program.

Program Outcomes

- Describe the Communication discipline and its central questions
- Employ Communication theories, perspectives, principles, and concepts
- Create messages appropriate to the audience, purpose, and context
- Critically analyze messages
- Apply ethical communication principles and practices
- Influence public discourse

Framework Courses (30-34 credits)

ENG 1010 - Composition *Credits: 3*

Elective QUAX - Quantitative Reasoning Course *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4* (COMM Course Recommended)

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective HISX - Historical Knowledge Course *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30 credits)

Elective CRTY - Creativity Course *Credits: 3*

Elective GLKY - Global Knowledge Course *Credits: 3*

COMM 1010 - Introduction to Mass Communication *Credits: 3*

COMM 1000 - Introduction to Communication *Credits: 3*

COMM 1302 - Interpersonal Communication *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

Elective COMM - Directed COMM Elective *Credits: 3*

COMM Elective *Credits: 3*

Unrestricted Electives *Credits: 9*

Total Credits: 60-64

Communication: Digital Media Production Certificate (COMM-CC-DIG)

The Digital Media Production Certificate program provides exposure to up-to-date hardware, equipment and digital software to learn and practice basic video production, TV production, audio recording/podcasting and editing skills. It is intended for individuals with no or partial media experience who wish to experience hands-on work in the applicable fields of radio/podcasting, television or video production. Students can practice necessary skills for potential employment in various digital media agencies, stations, and social media platforms - especially those that require work in either on-camera/on-mic and/or off-camera/behind-the-scenes. Classes are highly practical and provide significant hands-on opportunities, creative real-world projects, and building a professional media portfolio. Additional job placement recommendations, networking opportunities, transferable experiences, extra-curricular media clubs, and internship connections are also integral to all Media courses at MCC.

Learning Outcomes:

- Implement creative and interpretive skills through project-based work while scripting, producing, and editing original material for radio, television, video, and social media.
- Identify and distinguish specific mass media industries, media job roles, and required media skills.
- Plan, generate, and edit written and oral materials for professional media projects.

Required Courses

COMM 1010 - Introduction to Mass Communication *Credits: 3*
COMM 1612 - Audio Production *Credits: 3*
COMM 1603 - Television Production *Credits: 3*
COMM 1604 - Video Filmmaking *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
COMM 2512 - Screenwriting *Credits: 3*

Total Credits: 18

Communication: Human Communication, AS (COMM-AS-HUM)

Communication studies prepare students to participate in the professional, social, and civic life in an ethical, intellectually curious, and engaged manner. The discipline of communication focuses on how people use messages to generate meanings within and across various contexts, cultures, channels, and media.

Students who complete the major will have knowledge of foundational theories of communication; prevailing communication research paradigms; media industry structure and practices; prevailing criticism of media practice and performance; media influence on individuals and groups; the interplay of media systems in a global context; roles and functions of communication in interpersonal, group, organizational, and public contexts; conventions of public address and advocacy; and the impact and ethics of persuasion.

Students will be able to think critically; develop and present arguments; communicate effectively in interpersonal, group, organizational, and public contexts; and invent, arrange, and deliver effective and ethical messages via oral, print, and electronic modes.

Students will have the opportunity to focus in one of three areas of specialization: Human Communication, Media Communication, and Journalism, each preparing students for in-demand careers.

Learning Outcomes:

- Describe the Communication discipline and its central questions
- Employ Communication theories, perspectives, principles, and concepts
- Create messages appropriate to the audience, purpose, and context
- Critically analyze messages
- Apply ethical communication principles and practices
- Influence public discourse

Communication General Education Core (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

COMM 1201 - Film Study and Appreciation *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Social and Behavioral Science Elective:

PSY 1011, SOC 1001, HIST 1001, ANTH 1001 or ANTH 1005 *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Communication Program Core (24 Credits)

COMM 1000 - Introduction to Communication *Credits: 3*

COMM 1010 - Introduction to Mass Communication *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

COMM 1306 - Social Media in Contemporary Society *Credits: 3*

COMM 1401 - Journalism I *Credits: 3*

OR COMM 1604 - Video Filmmaking *Credits: 3*

OR COMM 1612 - Audio Production *Credits: 3*

OR COMM 2512 - Screenwriting *Credits: 3*

Communication Elective (any COMM) *Credits: 3*

Open Electives *Credits: 6*

Human Communication Courses (15 credits)

COMM 1303 - Group Communication *Credits: 3*

COMM 1305 - Intercultural Communication *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

OR PSY 1011 - General Psychology I *Credits: 3*

OR ANTH 1005 - Introduction to Cultural Anthropology *Credits: 3*

Communication Elective (any COMM) *Credits: 3*

Open Elective *Credits: 3*

Total Credits: 60-61

Communication: Journalism, AS (COMM-AS-JRN)

Communication studies prepare students to participate in the professional, social, and civic life in an ethical, intellectually curious, and engaged manner. The discipline of communication focuses on how people use messages to generate meanings within and across various contexts, cultures, channels, and media.

Students who complete the major will have knowledge of foundational theories of communication; prevailing communication research paradigms; media industry structure and practices; prevailing criticism of media practice and performance; media influence on individuals and groups; the interplay of media systems in a global context; roles and functions of communication in interpersonal, group, organizational, and public contexts; conventions of public address and advocacy; and the impact and ethics of persuasion.

Students will be able to think critically; develop and present arguments; communicate effectively in interpersonal, group, organizational, and public contexts; and invent, arrange, and deliver effective and ethical messages via oral, print, and electronic modes.

Students will have the opportunity to focus in one of three areas of specialization: Human Communication, Media Communication, and Journalism, each preparing students for in-demand careers.

Program Learning Outcomes:

- Describe the Communication discipline and its central questions
- Employ Communication theories, perspectives, principles, and concepts
- Create messages appropriate to the audience, purpose, and context
- Critically analyze messages
- Apply ethical communication principles and practices
- Influence public discourse

Communication General Education Core (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

COMM 1201 - Film Study and Appreciation *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Social and Behavioral Science Elective:

PSY 1011, SOC 1001, HIST 1001, ANTH 1001 or ANTH 1005 *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Communication Program Core (24 Credits)

COMM 1000 - Introduction to Communication *Credits: 3*

COMM 1010 - Introduction to Mass Communication *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

COMM 1306 - Social Media in Contemporary Society *Credits: 3*

COMM 1401 - Journalism I *Credits: 3*

OR COMM 1604 - Video Filmmaking *Credits: 3*

OR COMM 1612 - Audio Production *Credits: 3*

OR COMM 2512 - Screenwriting *Credits: 3*

Communication Elective (any COMM) *Credits: 3*

Open Electives *Credits: 6*

Journalism Courses (15 credits)

COMM 1401 - Journalism I *Credits: 3*

COMM 2401 - Publications Workshop *Credits: 3*

COMM 2995 - Internship *Credits: 3*

Media Production Elective - choose one

- COMM 1603 - Television Production *Credits: 3*
- COMM 1612 - Audio Production *Credits: 3*

- COMM 1604 - Video Filmmaking *Credits: 3*
- COMM 2512 - Screenwriting *Credits: 3*
- COMM 1402 - Photojournalism *Credits: 3*
- COMM 1601 - Digital Video Production *Credits: 3*

Advanced Writing Elective - choose one

- ENG 2100 - Creative Writing *Credits: 3*
- COMM 1304 - Introduction to Public Relations *Credits: 3*
- COMM 1502 - Sports Reporting *Credits: 3*
- COMM 1511 - Media Writing *Credits: 3*

Total Credits: 60-61

Communication: Media Production, AS (COMM-AS-MDP)

Communication studies prepare students to participate in the professional, social, and civic life in an ethical, intellectually curious, and engaged manner. The discipline of communication focuses on how people use messages to generate meanings within and across various contexts, cultures, channels, and media.

Students who complete the major will have knowledge of foundational theories of communication; prevailing communication research paradigms; media industry structure and practices; prevailing criticism of media practice and performance; media influence on individuals and groups; the interplay of media systems in a global context; roles and functions of communication in interpersonal, group, organizational, and public contexts; conventions of public address and advocacy; and the impact and ethics of persuasion.

Students will be able to think critically; develop and present arguments; communicate effectively in interpersonal, group, organizational, and public contexts; and invent, arrange, and deliver effective and ethical messages via oral, print, and electronic modes.

Students will have the opportunity to focus in one of three areas of specialization: Human Communication, Media Communication, and Journalism, each preparing students for in-demand careers.

Learning Outcomes:

- Describe the Communication discipline and its central questions
- Employ Communication theories, perspectives, principles, and concepts
- Create messages appropriate to the audience, purpose, and context
- Critically analyze messages
- Apply ethical communication principles and practices
- Influence public discourse

Communication General Education Core (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

COMM 1201 - Film Study and Appreciation *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Social and Behavioral Science Elective:

PSY 1011, SOC 1001, HIST 1001, ANTH 1001 or ANTH 1005 *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Communication Program Core (24 Credits)

COMM 1000 - Introduction to Communication *Credits: 3*

COMM 1010 - Introduction to Mass Communication *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

COMM 1306 - Social Media in Contemporary Society *Credits: 3*

COMM 1401 - Journalism I *Credits: 3*

OR COMM 1604 - Video Filmmaking *Credits: 3*

OR COMM 1612 - Audio Production *Credits: 3*

OR COMM 2512 - Screenwriting *Credits: 3*

Communication Elective (any COMM) *Credits: 3*

Open Electives *Credits: 6*

Media Production Courses (15 Credits)

COMM 1612 - Audio Production *Credits: 3*

COMM 1604 - Video Filmmaking *Credits: 3*

OR COMM 1603 - Television Production *Credits: 3*

COMM 2995 - Internship *Credits: 3*

Digital Arts Design Elective: COMM 1501 or any course from DAT, DGA, or GRA *Credits: 3*

Media Production Elective - choose one

- COMM 2401 - Publications Workshop *Credits: 3*
- COMM 1401 - Journalism I *Credits: 3*
- COMM 2512 - Screenwriting *Credits: 3*
- COMM 2513 - Scriptwriting for Media *Credits: 3*
- COMM 1601 - Digital Video Production *Credits: 3*
- COMM 1603 - Television Production *Credits: 3*
- COMM 1604 - Video Filmmaking *Credits: 3*
- COMM 1613 - Radio Production *Credits: 3*
- COMM 2601 - Advanced Digital Video Production *Credits: 3*
- COMM 2611 - Advanced Audio Production *Credits: 3*

Total Credits: 60-61

Communication: Public Relations Certificate (COMM-CC-PR)

The certificate program in Public Relations, bridging the disciplines of communication and business, is designed to appeal to several populations: new students considering a degree program in communication, employees in other areas of communication seeking retraining, and students with associate or bachelor's degrees seeking rapid certification in the skills necessary for entry-level positions in public relations. The program is designed for maximum flexibility. Students who are already proficient in specific areas of communication or technology will be able to fill in the voids in their training by customizing their courses to their individual needs. Similarly, students seeking a broad range of training in all areas relevant to public relations-including marketing, written and oral communications and effective use of social media-will achieve a generalist's knowledge.

Learning Outcomes:

- Design, implement and evaluate a marketing/PR campaign.
- Write for internal and external publications with an understanding of the needs of the target audiences.
- Establish media contacts.
- Serve as an effective spokesperson for an organization or business.
- Apply ethical principles to decision making and crisis management.
- Understand the role of the public relations practitioner within the context of mass communication.
- Understand the impact of print and broadcast media on the practice of public relations

Required Courses

ENG 1010 - Composition *Credits: 3*

COMM 1306 - Social Media in Contemporary Society *Credits: 3*

COMM 1401 - Journalism I *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

COMM 1304 - Introduction to Public Relations *Credits: 3*

Total Credits: 18

Communication: Visual Communication Certificate (COMM-CC-VIS)

The Visual Communication Certificate program provides a foundation in the technical and aesthetic aspects of visual media and communication technology. The program prepares students for employment in areas of graphic design, social media, and various new media. The program also serves as skill expansion credential for professionals working in public relations, journalism, library, development, or other related specialties that interface with various target audiences.

Learning Outcomes:

- Design, implement and evaluate visual messages for a variety of target audiences.
- Apply inclusion practices in the design and dissemination of word-based and visual information.
- Understand principles of communication effectiveness.

Required Courses

ENG 1010 - Composition *Credits: 3*

Fine Arts Elective (photography recommended) *Credits: 3*

COMM 1501 - Visual Communication *Credits: 3*

COMM 1306 - Social Media in Contemporary Society *Credits: 3*

OR COMM 2502 - Social Media Strategy *Credits: 3*

COMM 1603 - Television Production *Credits: 3*

COMM OR DGA Elective *Credits: 3*

Total Credits: 18

Computer Engineering Technology - Gateway, AS (CETC-AS)

Location: Gateway

The Computer Engineering Technology program provides training in hardware configuration, software development, programming applications, and the interfacing of hardware/software and communication systems. Students receive hands-on training on various computer systems, test equipment, and software products.

Learning Outcomes:

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

- Identify, analyze, and solve technical problems in computer programming, circuitry, hardware/software and communications systems
- Use diagnostic software and testing equipment to troubleshoot problems Install and configure computer hardware and software
- Apply programming and assembly languages
- Use CAD technology to design, create, analyze, simulate and evaluate electrical circuits and schematics Work cooperatively and productively with others in a laboratory test setting

Graduates of this program possess the skills to troubleshoot, repair, configure, install, and program basic computer systems. The experience and training gained in the Computer Engineering Technology Associate in Science degree program will also prepare students for the national CompTIA Computer Technicians A+ Certification Examination (offsite).

General Education Courses (23-24)

ENG 1010 - Composition *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

PHYS 1201 - General Physics I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

CENT 1016 - Computer Applications for Technology *Credits: 3*

CAD 1026 - Electronics Graphics CAD *Credits: 3*

CENT 1024 - Structured Programming *Credits: 4*

CENT 1026 - Computer Servicing *Credits: 4*

CENT 2010 - Computer Systems Software *Credits: 4*

CENT 2095 - Computer Engineering Technology Practicum *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CYS 1101 - Practices in Security Management *Credits: 3*

EETA 1010 - DC Circuit Analysis *Credits: 4*

EETA 1036 - Electronic Devices *Credits: 4*

EETA 2052 - Digital Electronics *Credits: 4*

Total Credits: 62-63

Computer Information Systems: Cloud Computing (CISC-AS)

The Computer Information Systems (CIS) degree program offers students a diverse technical curriculum that provides an understanding of many areas of information technology (IT). The program features a core of technical courses that cover topics such as database design, operating systems, and project management, and differentiated options that allow students to concentrate their learning in a particular area.

Students also have an opportunity to experience the workplace in an internship course, or via a simulated workplace capstone that allows them to work directly with employers or in a case study environment. They can leverage the skills acquired in this diverse program to prepare for employment, industry-recognized certification credentials or to pursue baccalaureate degrees. 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.

Learning Outcomes:

- Develop the ability to analyze and design solutions through knowledge and comprehension of information systems concepts and skills.
- Develop strategic and critical thinking skills through development of the ability to identify, gather, measure, summarize, verify, analyze, design, develop and test programs.
- Develop the ability to identify and solve unstructured problems in unfamiliar settings and exercise judgment based on facts.
- Develop mastery in communication by gaining proficiency in oral/written/electronic communication skills and the ability to explain systems development concepts and related technical issues to various stakeholders.
- Develop leadership skills by learning to work collaboratively with a diverse team, including organization, control, and assessment of group-based work, and provide leadership when appropriate.
- Develop the skills to apply current technology, analyze business problems, and design software and solve technical issues; apply word processing, spreadsheet, database, presentation, email, and collaborative software skills in a professional context.
- Develop the skills to communicate using network technologies, access information via the internet, and understand information integrity and security issues.
- Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
- Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.

Cloud Computing Option

The Cloud Computing option recognizes the need to educate students on cloud computing frameworks and technologies. Students will learn more about how organizations evaluate and implement cloud-based technology solutions. Hardware, software, and infrastructure aspects of the Cloud are covered. Students will develop foundational and practical knowledge of developing and deploying cloud-based solutions in modern day integrated business environments. Aspects of computing virtualization and vendor management will also be covered.

Learning outcomes:

- Describe the concepts, characteristics, delivery models and benefits of cloud computing
- Describe the key security and compliance challenges of cloud computing
- Demonstrate understanding of key technical and organizational challenges with a focus on business integration
- Analyze business requirements for implementation to map the distinctive characteristics of public, private and hybrid cloud models

Program Requirements

Computer Information System General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1010 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Computer Information System Program Core (24-26 credits)

CIS 1001 - Introduction to Computers *Credits: 3*

CIS 1211 - Database Design I *Credits: 3*

OR CSC 1231 - Database Development and Design I *Credits: 4*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

CIS 2994 - Coop Ed/Work Experience *Credits: 3*

OR CIS 2990 - Capstone Research *Credits: 3*

Open Elective *Credits:3*

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course *Credits: 3-4*

Specialization Courses (15-16 credits)

CIS 2131 - Fundamentals of Cloud Computing *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CST 2161 - Virtualization & Cloud Computing *Credits: 3*

CIS 2144 - Systems Analysis and Design *Credits: 3*

Directed Elective - Any CIS, CSC, CST, CYS, or DTS course *Credits: 3 -4*

Total Credits: 60-67

Computer Information Systems: Cloud Computing Certificate (CISC-CC)

The Cloud Computing certificate educates students in areas of cloud computing technologies. Students will learn more about how organizations evaluate and implement cloud-based technology solutions. The program will cover several aspects of the Cloud including hardware, software, and infrastructure. Students will develop foundational and practical knowledge of developing and deploying cloud-based solutions in modern day integrated business environments. Aspects of computing virtualization and vendor management will also be covered.

Certificate Learning Outcomes:

- Describe the concepts, characteristics, delivery models and benefits of cloud computing
- Describe the key security and compliance challenges of cloud computing
- Demonstrate understanding of key technical and organizational challenges with a focus on business integration
- Analyze business requirements for implementation to map the distinctive characteristics of public, private and hybrid cloud models

Required Courses

CIS 2131 - Fundamentals of Cloud Computing *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CIS 2232 - Designing and Deploying Cloud Applications *Credits: 3*

Elective CPL - Computer Programming Language Course *Credits: 3-4*

CSC 2235 - Introduction to Database Design *Credits: 3*

OR CSC 1231 - Database Development and Design I *Credits: 4*

OR Elective CPL - Computer Programming Language Course *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

OR CIS 2144 - Systems Analysis and Design *Credits: 3*

Total Credits: 18-20

Computer Information Systems: Computer Networking Certificate (CISN-CC)

The Computer Networking certificate is designed for those individuals who desire an understanding of networks and their use in the workplace. The course of study will provide the student with knowledge of local area network design, network management, installation, servicing and support. The Computer Networking certificate may be applied to the Computer Information Systems Associate degree

Learning Outcomes:

- Provide the student with the personal computer skills necessary to effectively function in today's workplace.
- Offer a "hands-on" learning experience in the personal computer networking software most commonly used in business and industry.
- Provide the opportunity for a more advanced technical understanding of personal computer local area networks, their design, installation and management.
- Provide entry-level opportunities to individuals seeking positions requiring computer networking skills.
- Upgrade the skills of individuals currently employed.

This degree will begin to prepare students for common certification exams such as:

- CCNA (CISCO Certified Network Associate) exam.
- CompTia Network+
- CompTIA Security+

Required Courses

CIS 1104 - Introduction to Operating Systems *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CYS 2111 - Network Security *Credits: 3*

CST 2142 - Windows Server Administration *Credits: 4*

Choose two directed electives (6-7 credits)

- CST 2124 - Voice over IP Networking *Credits: 3*
- **OR** CST 1111 - Computer Hardware *Credits: 4*
- CST 2122 - Networking II *Credits: 3*
- CST 2123 - Networking III *Credits: 3*
- CIS 2994 - Coop Ed/Work Experience *Credits: 3*

Total Credits: 19-20

Computer Information Systems: Computer Programming Certificate (CISP-CC)

The Computer Programming certificate educates students in the areas of programming and systems design. Courses are designed to educate students for positions in the industry and provide a solid foundation for continuation in our two-year associate degree in Computer Information Systems Technology.

Learning Outcomes:

- Demonstrate the use of objects in application programs.
- Define and implement efficient object-oriented solutions using C++, JAVA, and Visual Basic, Python, or others
- Write, compile, and execute programs using a programming language.
- Create applications using object-oriented features.
- Use inheritance and interfaces to create robust, reusable, programming code.
- Demonstrate a basic understanding of relational database concepts.
- Preparedness to advance one's career, or move on to more advanced study in MIS, CIS, or related fields.

Required Courses

CIS 1001 - Introduction to Computers *Credits: 3*

OR CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CSC 1211 - Java I *Credits: 3*

OR CSC 1205 - Visual Basic *Credits: 3*

OR CSC 1203 - Python Fundamentals *Credits: 3*

CSC 2235 - Introduction to Database Design *Credits: 3*

Pick 3 courses of directed electives from the list below (9 credits):

- CSC 2274 - Client-Side Web Development *Credits: 3*
- CSC 2251 - Mobile Device Programming *Credits: 3*
- CSC 2252 - Programming Mobile Devices I *Credits: 3*
- CSC 1203 - Python Fundamentals *Credits: 3*
- CSC 1205 - Visual Basic *Credits: 3*
- CSC 1211 - Java I *Credits: 3*
- CSC 2212 - Java II *Credits: 3*
- CSC 2214 - C++ Programming *Credits: 4*
- **OR** CIS 2144 - Systems Analysis and Design *Credits: 3*

Total Credits: 18

Computer Information Systems: Data Analytics (CISD-AS)

The Computer Information Systems (CIS) degree program offers students a diverse technical curriculum that provides an understanding of many areas of information technology (IT). The program features a core of technical courses that cover topics such as database design, operating systems, and project management, and differentiated options that allow students to concentrate their learning in a particular area.

Students also have an opportunity to experience the workplace in an internship course, or via a simulated workplace capstone that allows them to work directly with employers or in a case study environment. They can leverage the skills acquired in this diverse program to prepare for employment, industry-recognized certification credentials or to pursue baccalaureate degrees. 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.

Learning Outcomes:

- Develop the ability to analyze and design solutions through knowledge and comprehension of information systems concepts and skills.
- Develop strategic and critical thinking skills through development of the ability to identify, gather, measure, summarize, verify, analyze, design, develop and test programs.
- Develop the ability to identify and solve unstructured problems in unfamiliar settings and exercise judgment based on facts.
- Develop mastery in communication by gaining proficiency in oral/written/electronic communication skills and the ability to explain systems development concepts and related technical issues to various stakeholders.
- Develop leadership skills by learning to work collaboratively with a diverse team, including organization, control, and assessment of group-based work, and provide leadership when appropriate.
- Develop the skills to apply current technology, analyze business problems, and design software and solve technical issues; apply word processing, spreadsheet, database, presentation, email, and collaborative software skills in a professional context.
- Develop the skills to communicate using network technologies, access information via the internet, and understand information integrity and security issues.
- Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
- Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.

Data Analytics Option

The Data Analytics option will provide students with foundational knowledge and practical experience in data analysis vis-a-vis business and scientific applications. Students will understand how organizations strive to turn structured and unstructured data into useful information by using best practices, processes, and tools. Students will learn more about data sources, data significance, data attributes, data ethics, data security, and data governance. The option provides hands-on data analysis experience including use of spreadsheets and programming.

Learning outcomes:

- Describe key aspects of data in an organizational setting
- Implement foundational concepts of data computation, data structures, and analysis
- Utilize various technologies to organize, analyze, explore, and visualize data
- Execute data organization, exploration, and develop proficiency in a programming language (e.g. R)

Computer Information System General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1010 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Computer Information System Program Core (24-26 credits)

CIS 1001 - Introduction to Computers *Credits: 3*

CIS 1211 - Database Design I *Credits: 3*

OR CSC 1231 - Database Development and Design I *Credits: 4*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

CIS 2994 - Coop Ed/Work Experience *Credits: 3*

OR CIS 2990 - Capstone Research *Credits: 3*

Open Elective *Credits:3*

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course *Credits: 3-4*

Specialization Courses (15-17 credits)

DTS 2215 - Data Ethics and Security *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

DTS 2201 - Programming in Data Science *Credits: 3*

Directed Elective - Any CIS, CSC, CST, CYS, or DTS course *Credits: 3-4*

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course *Credits: 3-4*

Total Credits: 60-67

Computer Information Systems: Generalist (CISG-AS)

The Computer Information Systems (CIS) degree program offers students a diverse technical curriculum that provides an understanding of many areas of information technology (IT). The program features a core of technical courses that cover topics such as database design, operating systems, and project management, and differentiated options that allow students to concentrate their learning in a particular area.

Students also have an opportunity to experience the workplace in an internship course, or via a simulated workplace capstone that allows them to work directly with employers or in a case study environment. They can leverage the skills acquired in this diverse program to prepare for employment, industry-recognized certification credentials or to pursue baccalaureate degrees. 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.

Learning Outcomes:

- Develop the ability to analyze and design solutions through knowledge and comprehension of information systems concepts and skills.
- Develop strategic and critical thinking skills through development of the ability to identify, gather, measure, summarize, verify, analyze, design, develop and test programs.
- Develop the ability to identify and solve unstructured problems in unfamiliar settings and exercise judgment based on facts.
- Develop mastery in communication by gaining proficiency in oral/written/electronic communication skills and the ability to explain systems development concepts and related technical issues to various stakeholders.
- Develop leadership skills by learning to work collaboratively with a diverse team, including organization, control, and assessment of group-based work, and provide leadership when appropriate.
- Develop the skills to apply current technology, analyze business problems, and design software and solve technical issues; apply word processing, spreadsheet, database, presentation, email, and collaborative software skills in a professional context.
- Develop the skills to communicate using network technologies, access information via the internet, and understand information integrity and security issues.
- Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
- Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.

Generalist Option

The Generalist option allows a student to explore many areas of CIS, IT, MIS, or Networking. Students may customize a computer technology program that will suit their needs. The curriculum leaves space for elective courses in fields other than computers to accommodate students who wish to apply computer technology to other fields.

Learning outcomes:

- Describe current and emerging technologies.
- Demonstrate basic knowledge of computer information systems which includes computer programming skills, network essentials, and systems analysis and design, operating systems, or other courses related to student interest.
- Demonstrate desirable attitudes and work habits- creative thinking, the ability to solve problems, cooperation, good judgment, responsibility, and self-reliance.
- Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.

Computer Information System General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4 (MATH 1010 Recommended)*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Computer Information System Program Core (24-26 credits)

CIS 1001 - Introduction to Computers *Credits: 3*

CIS 1211 - Database Design I *Credits: 3*

OR CSC 1231 - Database Development and Design I *Credits: 4*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

CIS 2994 - Coop Ed/Work Experience *Credits: 3*

OR CIS 2990 - Capstone Research *Credits: 3*

Open Elective *Credits:3*

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course *Credits: 3-4*

Specialization Courses (15-18 credits)

Elective CPL - Computer Programming Language Course *Credits: 3-4*

CST 1121 - Networking I *Credits: 3*

CIS 2144 - Systems Analysis and Design *Credits: 3*

Directed Elective - Any CIS, CSC, CST, CYS, or DTS course *Credits: 3-4*

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course *Credits: 3-4*

Total Credits: 60-69

Computer Information Systems: IT Support (CISI-AS)

The Computer Information Systems (CIS) degree program offers students a diverse technical curriculum that provides an understanding of many areas of information technology (IT). The program features a core of technical courses that cover topics such as database design, operating systems, and project management, and differentiated options that allow students to concentrate their learning in a particular area.

Students also have an opportunity to experience the workplace in an internship course, or via a simulated workplace capstone that allows them to work directly with employers or in a case study environment. They can leverage the skills acquired in this diverse program to prepare for employment, industry-recognized certification credentials or to pursue baccalaureate degrees. 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.

Learning Outcomes:

- Develop the ability to analyze and design solutions through knowledge and comprehension of information systems concepts and skills.
- Develop strategic and critical thinking skills through development of the ability to identify, gather, measure, summarize, verify, analyze, design, develop and test programs.
- Develop the ability to identify and solve unstructured problems in unfamiliar settings and exercise judgment based on facts.
- Develop mastery in communication by gaining proficiency in oral/written/electronic communication skills and the ability to explain systems development concepts and related technical issues to various stakeholders.
- Develop leadership skills by learning to work collaboratively with a diverse team, including organization, control, and assessment of group-based work, and provide leadership when appropriate.
- Develop the skills to apply current technology, analyze business problems, and design software and solve technical issues; apply word processing, spreadsheet, database, presentation, email, and collaborative software skills in a professional context.
- Develop the skills to communicate using network technologies, access information via the internet, and understand information integrity and security issues.
- Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
- Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.

IT Support Option

The IT Support option prepares students to troubleshoot technical problems, work within a business environment using oral and written communication skills effectively and apply software and hardware service and technical skills.

Learning outcomes:

- To design and use problem solving techniques
- Use oral and written communication to communicate with clients in a business environment
- Implement customer service skills in the context of the IT department
- Apply proper troubleshooting skills within a networking environment
- Utilize technical skills in implementing software and hardware installations

Computer Information System General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1010 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Computer Information System Program Core (24-26 credits)

CIS 1001 - Introduction to Computers *Credits: 3*

CIS 1211 - Database Design I *Credits: 3*

OR CSC 1231 - Database Development and Design I *Credits: 4*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

CIS 2994 - Coop Ed/Work Experience *Credits: 3*

OR CIS 2990 - Capstone Research *Credits: 3*

Open Elective *Credits:3*

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course *Credits: 3-4*

Specialization Courses (17 credits)

CST 1111 - Computer Hardware *Credits: 4*

CST 1121 - Networking I *Credits: 3*

CYS 2111 - Network Security *Credits: 3*

CST 2142 - Windows Server Administration *Credits: 4*

CIS 2131 - Fundamentals of Cloud Computing *Credits: 3*

Total Credits: 62-68

Computer Information Systems: IT Support Certificate (CISI-CC)

The Information Technology (IT) Support Certificate prepares students to troubleshoot technical problems, work within a business environment using oral and written communication skills effectively, and apply software and hardware service and technical skills. The IT Support Certificate program is 27 credits, and all courses required by this certificate may be applied to the Computer Information Systems Associate degree program.

Learning Outcomes:

- To design and use problem solving techniques
- Use oral and written communication to communicate with clients in a business environment
- Implement customer service skills in the context of the IT department
- Apply proper troubleshooting skills within a networking environment
- Utilize technical skills in implementing software and hardware installations

This degree will begin to prepare students for common industry certification exams such as:

- CCNA (CISCO Certified Network Associate) exam.
- CompTia Network+
- CompTIA Security+

Required Courses

CIS 1001 - Introduction to Computers *Credits: 3*
CST 1111 - Computer Hardware *Credits: 4*
CST 1121 - Networking I *Credits: 3*
CYS 2111 - Network Security *Credits: 3*
CIS 1104 - Introduction to Operating Systems *Credits: 3*
CST 2142 - Windows Server Administration *Credits: 4*
CIS 2131 - Fundamentals of Cloud Computing *Credits: 3*
CIS 2990 - Capstone Research *Credits: 3*
 OR CIS 2994 - Coop Ed/Work Experience *Credits: 3*

Total Credits: 26

Computer Information Systems: Networking, AS (CISN-AS)

The Computer Information Systems (CIS) degree program offers students a diverse technical curriculum that provides an understanding of many areas of information technology (IT). The program features a core of technical courses that cover topics such as database design, operating systems, and project management, and differentiated options that allow students to concentrate their learning in a particular area.

Students also have an opportunity to experience the workplace in an internship course, or via a simulated workplace capstone that allows them to work directly with employers or in a case study environment. They can leverage the skills acquired in this diverse program to prepare for employment, industry-recognized certification credentials or to pursue baccalaureate degrees. 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.

Learning Outcomes:

- Develop the ability to analyze and design solutions through knowledge and comprehension of information systems concepts and skills.
- Develop strategic and critical thinking skills through development of the ability to identify, gather, measure, summarize, verify, analyze, design, develop and test programs.
- Develop the ability to identify and solve unstructured problems in unfamiliar settings and exercise judgment based on facts.
- Develop mastery in communication by gaining proficiency in oral/written/electronic communication skills and the ability to explain systems development concepts and related technical issues to various stakeholders.
- Develop leadership skills by learning to work collaboratively with a diverse team, including organization, control, and assessment of group-based work, and provide leadership when appropriate.
- Develop the skills to apply current technology, analyze business problems, and design software and solve technical issues; apply word processing, spreadsheet, database, presentation, email, and collaborative software skills in a professional context.
- Develop the skills to communicate using network technologies, access information via the internet, and understand information integrity and security issues.
- Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
- Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.

Networking Option

The Networking option of the CIS degree offers training in the fundamentals in data networking and server administration. Students also learn the important skills needed to maintain secure networks. Students are offered the additional advantage of hands-on training or simulation with state-of-the-art equipment or software that leads to industry-recognized certification.

Learning outcomes:

- Provide the student with the personal computer skills necessary to effectively function in today's workplace.
- Offer a "hands-on" learning experience in the personal computer networking software most commonly used in business and industry.
- Provide the opportunity for a more advanced technical understanding of personal computer local area networks, their design, installation and management.
- Upgrade the personal computer knowledge and skills of individuals currently employed.

Computer Information System General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1010 Recommended) (

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Computer Information System Program Core (24-26 credits)

CIS 1001 - Introduction to Computers Credits: 3

CIS 1211 - Database Design I Credits: 3

OR CSC 1231 - Database Development and Design I Credits: 4

CIS 1104 - Introduction to Operating Systems Credits: 3

CIS 1141 - Introduction to Management Information Systems Credits: 3

CIS 1143 - Project Management Credits: 3

CIS 2994 - Coop Ed/Work Experience Credits: 3

OR CIS 2990 - Capstone Research Credits: 3

Open Elective Credits:3

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course Credits: 3-4

Specialization Courses (16-18 credits)

CST 1121 - Networking I Credits: 3

CST 2142 - Windows Server Administration Credits: 4

CST 2124 - Voice over IP Networking Credits: 3

OR CST 1111 - Computer Hardware Credits: 4

CYS 2111 - Network Security Credits: 3

Directed Elective - Any CIS, CSC, CST or CYS course Credits: 3-4

Total Credits: 61-69

Computer Information Systems: Programming (CISP-AS)

The Computer Information Systems (CIS) degree program offers students a diverse technical curriculum that provides an understanding of many areas of information technology (IT). The program features a core of technical courses that cover topics such as database design, operating systems, and project management, and differentiated options that allow students to concentrate their learning in a particular area.

Students also have an opportunity to experience the workplace in an internship course, or via a simulated workplace capstone that allows them to work directly with employers or in a case study environment. They can leverage the skills acquired in this diverse program to prepare for employment, industry-recognized certification credentials or to pursue baccalaureate degrees. 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.

Learning Outcomes:

- Develop the ability to analyze and design solutions through knowledge and comprehension of information systems concepts and skills.
- Develop strategic and critical thinking skills through development of the ability to identify, gather, measure, summarize, verify, analyze, design, develop and test programs.
- Develop the ability to identify and solve unstructured problems in unfamiliar settings and exercise judgment based on facts.
- Develop mastery in communication by gaining proficiency in oral/written/electronic communication skills and the ability to explain systems development concepts and related technical issues to various stakeholders.
- Develop leadership skills by learning to work collaboratively with a diverse team, including organization, control, and assessment of group-based work, and provide leadership when appropriate.
- Develop the skills to apply current technology, analyze business problems, and design software and solve technical issues; apply word processing, spreadsheet, database, presentation, email, and collaborative software skills in a professional context.
- Develop the skills to communicate using network technologies, access information via the internet, and understand information integrity and security issues.
- Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
- Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.

Programming Option

The Programming option recognizes the need to educate students in the area of programming and systems design. Students will take courses in a variety of current programming languages, thus offering preparedness to obtain employment, career advancement, or proceed to more advanced study in MIS, CIS, or related fields.

Learning outcomes:

- Demonstrate the use of objects in application programs.
- Define and implement efficient programming solutions using various programming languages
- Write, compile, and execute programs
- Create applications using object-oriented features.
- Use inheritance and interfaces to create robust, reusable, programming code.
- Demonstrate a basic understanding of relational database concepts.
- Preparedness to obtain employment, advance one's career, or move on to more advanced study in MIS, CIS, or related fields.

Computer Information System General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1010 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Computer Information System Program Core (24-26 credits)

CIS 1001 - Introduction to Computers *Credits: 3*

CIS 1211 - Database Design I *Credits: 3*

OR CSC 1231 - Database Development and Design I *Credits: 4*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

CIS 2994 - Coop Ed/Work Experience *Credits: 3*

OR CIS 2990 - Capstone Research *Credits: 3*

Open Elective *Credits:3*

Directed Elective - Any CIS, CSC, CSA, CST, CYS, or DTS course *Credits: 3-4*

Specialization Courses (15-18 credits)

CSC 1211 - Java I *Credits: 3*

OR CSC 1203 - Python Fundamentals *Credits: 3*

OR CSC 1205 - Visual Basic *Credits: 3*

CSC 2212 - Java II *Credits: 3*

OR Other Elective CPL - Computer Programming Language Course not yet taken. *Credits: 3-4*

CSC 1273 - Intro to Programming w/JavaScript *Credits: 3*

OR CSC 2274 - Client-Side Web Development *Credits: 3*

Elective CPL - Computer Programming Language Course *Credits: 3-4*

Directed Elective - Any CIS, CSC, CST, CYS, or DTS201 course *Credits: 3-4*

Total Credits: 60-69

Computer Networking Security Certificate (CPNS-CC)

The Computer Networking Security Certificate is designed to take a student with little or no information technology experience and prepares them for entry-level work in network and Linux systems administration, with an additional focus on how network and systems administration relates to cybersecurity. It covers the fundamentals of computer network theory, administration of a networked client-server computer operating system, and computer programming.

Students will be able to build virtualized and real-world computer networks. Students will have hands-on access to computer networking equipment.

Learning Outcomes:

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

- Design and build local area networks (LAN).
- Use packet tracing software to analyze network traffic.
- Install and configure Linux operating systems.
- Install and configure network services in Linux operating systems.
- Design, build and test a Python program.
- Evaluate computer forensic methods.

This degree will begin to prepare students for common security certification exams such as:

- CompTIA Network+
- CompTIA Linux+
- CompTIA Security+
- CCNA

Required Courses

CSC 1203 - Python Fundamentals *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CST 2122 - Networking II *Credits: 3*

CST 1141 - Linux System Administration *Credits: 4*

CYS 2111 - Network Security *Credits: 3*

CYS 2131 - Computer Forensics & Network Intrusions *Credits: 3*

Total Credits: 19

Computer Networking Technology Certificate (CPNT-CC)

The Computer Networking Technology Certificate is designed to take a student with little or no information technology experience and prepares them for entry-level work in network and systems administration. It covers the fundamentals of computer network theory as well as practical network connectivity device configuration, administration of networked client-server Linux and Windows computer operating systems.

Students will be able to build virtualized and real-world computer networks. Students will have hands-on access to computer networking equipment.

Learning Outcomes:

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

- Design and build local area networks (LAN).
- Use packet tracing software to analyze network traffic.
- Install and configure Linux and Windows operating systems.
- Install and configure network services in Linux and Windows operating systems.

This certificate will begin to prepare students for common security certification exams such as:

- CompTIA Network+
- CompTIA Linux+
- CCNA

Required Courses

CST 1121 - Networking I *Credits: 3*

CST 2122 - Networking II *Credits: 3*

CST 2123 - Networking III *Credits: 3*

CST 2124 - Voice over IP Networking *Credits: 3*

CST 1141 - Linux System Administration *Credits: 4*

CST 2142 - Windows Server Administration *Credits: 4*

Total Credits: 20

Computer Networking, AS (CPNT-AS)

The Computer Networking associate degree program provides students with both a broad and in-depth background in computer networking concepts and technologies. It covers the fundamentals of computer network theory as well as practical network connectivity device configuration, administration of networked client-server computer operating systems, computer hardware design and maintenance and computer programming.

Students will be able to build virtualized and real-world computer networks. Students will have hands-on access to computer networking equipment.

This degree prepares students for entry-level positions in the computer networking and system administration professions. Students may also choose to transfer to a bachelor's degree program at a four-year university.

Students who are interested in programming should consider the CSCU Pathway Transfer Degree: Computer Science Studies A.A degree.

Learning Outcomes:

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

- Design and build local area networks (LAN).
- Use packet tracing software to analyze network traffic.
- Install and configure Linux and Windows operating systems.
- Install and configure network services in Linux and Windows operating systems.
- Design, build and test a Python program.
- Implement virtualization technologies.

This degree will begin to prepare students for common security certification exams such as:

- CompTIA Network+
- CompTIA Linux+
- CompTIA Security+
- CompTIA A+

General Education Courses (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher (MATH 1200 recommended) *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4* (PHYS 1100 recommended)

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39-40 credits)

CSC 1203 - Python Fundamentals *Credits: 3*

CST 1111 - Computer Hardware *Credits: 4*

CST 1121 - Networking I *Credits: 3*

CST 2122 - Networking II *Credits: 3*

CST 2123 - Networking III *Credits: 3*

CST 2124 - Voice over IP Networking *Credits: 3*

CST 2125 - Protocol Analysis *Credits: 3*

CST 2161 - Virtualization & Cloud Computing *Credits: 3*

CST 1141 - Linux System Administration *Credits: 4*

CST 2142 - Windows Server Administration *Credits: 4*

CYS 2111 - Network Security *Credits: 3*

Elective - Any EGR, CIS, CSC, CSA, CST, or CYS course *Credits: 3-4*

Total Credits: 60-64

Computer Science: Computer Science Studies - TAP/CSCU Transfer Degree, AA (CMSC-AA-TAP)

CSCU Pathway Transfer A.A. degree programs are for Connecticut Community College students who wish to transfer to one of the four Connecticut State Universities or Charter Oak College. Upon transfer, students are guaranteed full junior status and can complete a bachelor's degree in their major without losing any credits or being required to take any extra credits.

The Computer Science Pathway A.A. degree is a rigorous calculus-based program which provides students with a broad background in the underlying disciplines of computer science including: the fundamentals of computer programming; database theory and design; digital systems including digital logic, computer organization & architecture and assembly language; and client-side web development.

Students will also acquire a comprehensive educational background in mathematics, science and general education, designed to develop and enhance their critical thinking, problem analysis and resolution skills.

Students who are interested in Networking and System Administration should consider the Computer Network Technology A.S. degree or certificate.

Learning Outcomes:

Upon successful completion of all requirements of this degree program, graduates will:

- Demonstrate the ability to understand a problem and develop logically structured solutions through the use of a modern programming language such as Java.
- Apply the use of data modeling and relational database design for the design and implementation of a database application.
- Understand the fundamental operating principles of a computer on an architectural level.
- Acquire an understanding of modern abstract mathematics as it relates to computer science
- Apply the use of HTML, CSS, JavaScript, Bootstrap and jQuery to the design and creation of a website.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

With this degree, you will be able to transfer to the following majors:

- **Central Connecticut State University:** Computer Science, B.S. - Alternative Program, Computer Science, B.S. - Honors
- **Eastern Connecticut State University:** Computer Science, B.S.
- **Southern Connecticut State University:** Computer Science, B.S. - General Program
- **Western Connecticut State University:** Computer Science, B.S.

Framework Courses (33 - 34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

PHYS 2201 - Calculus-Based Physics I *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

OR BIO 1210 - General Biology I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

PHYS 2202 - Calculus-Based Physics II *Credits: 4*

OR CHEM 1220 - General Chemistry II *Credits: 4*

OR BIO 1220 - General Biology II *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (28 credits)

MATH 2600 - Calculus I *Credits: 4*

MATH 2610 - Calculus II *Credits: 4*

MATH 2611 - Discrete Mathematics for Computer Science *Credits: 4*

CSC 2274 - Client-Side Web Development *Credits: 3*
CSC 2217 - Digital Design *Credits: 4*
CSC 2235 - Introduction to Database Design *Credits: 3*
CSC 1211 - Java I *Credits: 3*
CSC 2212 - Java II *Credits: 3*

Total Credits: 61-62

Computer Science: Mobile Programming, AAS (CSMP-AAS)

This program prepares students for technical positions within the Computer Science field. It provides students with the skills needed to be successful in the emerging field of mobile device programming technologies. The program teaches students fundamental concepts as well as fosters preparation for tomorrow's programming needs. Course work is focused on programming in heterogeneous platform environments through multiple programming languages, and development of both written and verbal communication skills needed in all areas of the business community.

Learning Outcomes:

Upon successful completion of this degree, graduates will be able to:

- Demonstrate an understanding of connections between various platforms and programming languages;
- Work with and study the underlying technologies that support the internet;
- Demonstrate the ability to use an IDE (integrated development environment);
- Demonstrate the use of OOP (object oriented programming) techniques in program design and development;
- Demonstrate writing, compiling and executing code in Object Oriented programming languages;
- Test programs and troubleshoot simple problems;
- Understand relational database design methodology and be able to use database software to build, modify, and query relational databases; and
- Produce logical software solutions to problems.

This program is currently only offered to PTECH and Early College Studies students. This program will operate at the Norwalk Campus.

General Education Courses (23-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 or Higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1210 - General Biology I *Credits: 4*

HIST 1015 - US History to 1877 *Credits: 3*

OR HIST 1016 - US History from Reconstruction *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40-42 credits)

CSC 1201 - Introduction to Programming *Credits: 4*

CSC 2213 - Object Oriented Programming *Credits: 4*

CSC 1231 - Database Development and Design I *Credits: 4*

CSC 2232 - Database Development II *Credits: 4*

CSC 2252 - Programming Mobile Devices I *Credits: 3*

CSC 2253 - Programming Mobile Devices II *Credits: 3*

CSC 1271 - Web Development and Design I *Credits: 4*

CSC 2272 - Web Development and Design II *Credits: 4*

CSC 2276 - XML for the Worldwide Web *Credits: 4*

Directed Electives (Any CSC or CST or MATH 2000-level or higher) *Credits: 6-8*

Total Credits: 63-66

Computer Science: Relational Database Development Certificate (CSRD-CC)

This certificate program is designed for students who are preparing to enter the job market and want to earn a certificate on their way to earning an associate or bachelor's degree. It also benefits students who already have college degrees and are seeking retraining in the technology. The program provides an understanding of client/server environment, relational database design and development, and Database Administration.

Learning Outcomes:

Upon successful completion of this certificate, the student will:

- Understand the art of data modeling, database design, and database implementation.
- Identify the components of a database.
- Utilize the normalization process and implement designs.
- Understand the role of the data and database administrators.
- Use Structured Query Language using elements of a popular and widely used relational database package like MS SQL.
- Identify and use appropriate programming constructs to fulfill application logic needs
- Manipulate database tables using SQL programming
- Build error trapping facilities within SQL programs
- Create SQL program units including: procedures, functions, triggers
- Use supplied packages in SQL program units
- Load data into tables from external files using the SQL utilities
- Identify uses of dynamic SQL and object technology
- Establish an in-depth understanding of Database Administration using the DBMS Interfaces.
- Apply the Relational Database Model to understand the Logical and Physical aspects of the DBMS architecture.
- Understand the functions of the Oracle Database Server and Oracle Database Client.
- Create, maintain and manipulate an Oracle Database.
- Understand and apply the Data Dictionary.
- Understand and apply database statistics in relation to performance and integrity of the database.
- Create and understand the application of user roles, privileges, and the security of the database.
- Discuss and understand the concepts of Backup and Recovery Procedures.

Required Courses

CSC 1231 - Database Development and Design I *Credits: 4*

CSC 2232 - Database Development II *Credits: 4*

CSC 2233 - Database Development III *Credits: 4*

Total Credits: 12

Computer Science: Smartphone Application Development (CSAD-CC)

This certificate prepares students to enter the fastest growing segment of the information technology application development marketplace. It includes basic programming skills, object-oriented programming techniques, an overview of current mobile platforms and device-specific advanced topics. Students completing the program will be able to create simple applications on a variety of devices and specialized programs on the device of their choice. Platforms currently offered include Apple iPhone and Google Android OS.

Learning Outcomes:

- Plan, design, code, test, and debug solutions to programming problems using a variety of programming languages;
- Gain understanding of fundamental object-oriented programming concepts, including encapsulation, inheritance and polymorphism;
- Demonstrate an understanding of object-oriented programming principles through exams and lab exercises;
- Compare and contrast mobile platforms, their tools, and the development process;
- Install software development kits for each mobile platform;
- Demonstrate understanding of the development cycle for mobile devices including building, testing, and deployment;
- Create apps for Apple iOS and Google Android mobile devices;
- Create cross-platform web applications for mobile devices; and
- Test projects in proprietary emulators for each platform.

Required Courses

CSC 1201 - Introduction to Programming *Credits: 4*
CSC 2213 - Object Oriented Programming *Credits: 4*
CSC 2252 - Programming Mobile Devices I *Credits: 3*
CSC 2253 - Programming Mobile Devices II *Credits: 3*

Total Credits: 14

Computer Science: Software Development (CSSD-AS)

The curriculum includes a foundation of core courses in database development and programming languages, and permits students to select major electives that are best suited to their career goals and interests. This flexibility will enable the College better to prepare students for employment in a fast-moving field.

The Associate of Science in Software Development provides a solid general education as well as a thorough coverage of the topics and skills supporting the dynamic information technology field. Programmatic goals relate to the mission in the following manner:

- provide students with skills needed to gain entry level or higher employment;
- provide students with appropriate educational experiences that give them the written, verbal, and interpersonal skills necessary to function as a team member in the IT environment as well as transfer to higher level institutions;
- provide students with course work and experience that improves on existing skills or develops new ones; and
- work in partnership with business and industry in responding to the employment and training needs in the field of information technology.

The program serves both traditional first-time students as well as professionals currently working in the field. The curriculum is flexible enough to meet the needs of students who wish to transfer to a baccalaureate institution and students preparing for immediate entry into the workplace.

Learning Outcomes:

- Upon successful completion of this degree graduates will be able to:
- Demonstrate an understanding of connections between various platforms and programming languages;
- Work with and study the underlying technologies that support the internet;
- Demonstrate the ability to use an IDE (integrated development environment);
- Demonstrate the use of OOP (object-oriented programming) techniques in program design and development;
- Demonstrate writing, compiling and executing code in Object Oriented programming languages;
- Test programs and troubleshoot simple problems;
- Understand relational database design methodology and be able to use database software to build, modify, and query relational databases; and
- Produce logical software solutions to problems.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1600 or higher *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX - Social / Behavioral Science Course *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40-45 credits)

CSC 2276 - XML for the Worldwide Web *Credits: 4*

CSC 2232 - Database Development II *Credits: 4*

CSC 1201 - Introduction to Programming *Credits: 4*

CSC 1231 - Database Development and Design I *Credits: 4*

Technical Directed Electives - Any CSC, CST courses, or MATH 2000-level or higher *Credits: 9-12*

Unrestricted Electives - Any course 1000 or higher *Credits: 9*

2-Semester Programming Sequence (6-8 credits)

Choose one programming sequence

- CSC 2213 - Object Oriented Programming *Credits: 4*
AND CSC 2216 - Data Structures and Algorithms *Credits: 4*

OR

- CSC 2252 - Programming Mobile Devices I *Credits: 3*
 AND CSC 2253 - Programming Mobile Devices II *Credits: 3*

OR

- CSC 2272 - Web Development and Design II *Credits: 4*
 AND CSC 1271 - Web Development and Design I *Credits: 4*

Total Credits: 61-68

Computer Science: Software Engineering, AAS (CSSE-AAS)

The program emphasizes the complete lifecycle of the software development process. Students learn how to design, develop, test, deploy, and maintain software using rigorous software engineering practices. They are taught how to leverage technology to create flexible and scalable applications and to address the challenges that arise during the development process. Also, the program exposes students to a range of other disciplines, such as the physical sciences, social sciences, and humanities so they gain an understanding of the real world scenarios that make up the software engineering environment.

Learning Outcomes:

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

- Demonstrate an understanding of connections between various platforms and programming languages;
- Work with and study the underlying technologies that support the internet;
- Demonstrate the ability to use an IDE (integrated development environment);
- Demonstrate the use of OOP (object-oriented programming) techniques in program design and development;
- Demonstrate writing, compiling and executing code in Object Oriented programming languages;
- Test programs and troubleshoot simple problems;
- Understand relational database design methodology and be able to use database software to build, modify, and query relational databases; and
- Produce logical software solutions to problems.

General Education Courses (23-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1210 - General Biology I *Credits: 4*

HIST 1015 - US History to 1877 *Credits: 3*

OR HIST 1016 - US History from Reconstruction *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (37-38 credits)

CSC 1201 - Introduction to Programming *Credits: 4*

CSC 2219 - Introduction to Bioinformatics *Credits: 3*

CSC 2213 - Object Oriented Programming *Credits: 4*

CSC 1231 - Database Development and Design I *Credits: 4*

CSC 2218 - Software Engineering Methods *Credits: 4*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

CSC 1271 - Web Development and Design I *Credits: 4*

CSC 2272 - Web Development and Design II *Credits: 4*

CSC 2276 - XML for the Worldwide Web *Credits: 4*

Directed Elective (Any CSC or CST or MATH 2000-level or higher) *Credits: 3-4*

Total Credits: 60-62

Computer Science: Web Developer Certificate (CSWD-CC)

This certificate provides students with an in-depth study of Web Development. It is designed for students who are preparing to enter the job market as well as college graduates seeking retraining in the emerging technologies of the Internet. Students obtaining this certificate may continue their studies to obtain an A.S. in Software Development or an AAS in Web Development.

Learning Outcomes:

Upon successful completion of all program requirements, graduates will possess the following skills and knowledge:

- Ability to build a commercial or generic web site from the design phase through implementation;
- Ability to develop web pages using low level code as well as web page development software packages; and
- Ability to support web pages with server-side java programming and other dynamic products.

Required Courses

CSC 1271 - Web Development and Design I *Credits: 4*
CSC 2272 - Web Development and Design II *Credits: 4*
CSC 2213 - Object Oriented Programming *Credits: 4*
CSC 2275 - Web Development With PHP *Credits: 4*

Total Credits: 16

Computer Science: Web Development, AAS (CSWD-AAS)

This program prepares students for technical positions within the Computer Science field. It provides students with the skills needed to be successful in the field of Web Development. The program teaches students fundamental concepts as well as fosters preparation for tomorrow's web development needs. Course work is focused on programming in heterogeneous platform environments through multiple programming languages, essential design skills and tools, and development of both written and verbal communication skills needed in all areas of the business community.

Learning Outcomes:

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

- Create web sites and programs that function in heterogeneous environments;
- Use an integrated development environment (IDE) to create web sites and other programs;
- Use OOP (object-oriented programming) techniques to design and develop software;
- Create effective User Interfaces and User Experiences;
- Write and execute code in Object Oriented programming languages;
- Test web pages and web sites and troubleshoot any problems;
- Design and implement relational database entities;
- Use database software to build, modify, and query relational databases;
- Produce websites using modern techniques.

General Education Courses (22-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1600 or Higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX - Social / Behavioral Science Course *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

ART 1210 - Two-Dimensional Design *Credits: 3*

GRA 1501 - Graphic Design I *Credits: 3*

GRA 2301 - Digital Imaging II *Credits: 3*

CSC 1201 - Introduction to Programming *Credits: 4*

CSC 1231 - Database Development and Design I *Credits: 4*

CSC 1271 - Web Development and Design I *Credits: 4*

CSC 2213 - Object Oriented Programming *Credits: 4*

CSC 2252 - Programming Mobile Devices I *Credits: 3*

CSC 2272 - Web Development and Design II *Credits: 4*

CSC 2275 - Web Development With PHP *Credits: 4*

CSC 2253 - Programming Mobile Devices II *Credits: 3*

Total Credits: 61-63

Computer Servicing Certificate (CSV-C-CC)

The Computer Servicing Certificate Program is designed for students seeking entry-level technical skills for the information technology (IT) industry. The Program consists of four courses. Each course focuses on specific skills in computer applications, computer system hardware and PC operating systems.

Successful mastery of the material should prepare the student for CompTIA's A+ Certification exams (www.comptia.org). A+ Certification is an internationally recognized standard in the IT field. Students who desire to continue their education can use the Computer Servicing Certificate program as a steppingstone to more advanced studies in the Computer Engineering Technology program at the Gateway Campus.

Learning Outcomes:

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

- Use industry-standard computer applications such as word processing, spreadsheets, presentation software, email and internet access to effectively communicate and research topics in computer servicing
- Demonstrate safety and standards in the workplace
- Install, configure and upgrade computer hardware and software
- Use diagnostic software and test equipment to troubleshoot problems
- Recognize the need for continuous learning

Required Courses

CENT 1016 - Computer Applications for Technology *Credits: 3*

CENT 1026 - Computer Servicing *Credits: 4*

CENT 2010 - Computer Systems Software *Credits: 4*

CST 1121 - Networking I *Credits: 3*

Technical Elective - (*Consult Technical Advisor*) *Credits: 4*

Total Credits: 18

Construction Management Certificate (CNMG-CC)

This certificate will prepare students for immediate employment in entry level jobs in the construction industry. Graduates of the program will acquire basic knowledge and skills in administrative procedures, resource management and construction processes for building systems and heavy/highway systems. Further, graduates will have the ability to utilize construction documents for quantity take-offs, participate in construction job-site office meetings and provide related documentation and correspondence. All credits in this certificate are directly transferable into the Construction Management A.S. degree program at Capital.

Learning Outcomes:

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

- Interpret and effectively utilize construction and construction-related documents including reference materials, contracts, and specifications.
- Prepare quantity take-offs using manual mathematical models/techniques and takeoff software.
- Estimate construction costs for bidding and assess the appropriateness of various construction methods, materials and equipment in specific situations.
- Identify construction equipment and tools and their use in Building Systems and Heavy/Highway Systems.

Additional Information:

- No to low cost for students. No textbooks for CM courses- utilize construction industry specific project Drawings and Specifications
- Students earn "ProCore Certificates", Industry Certifications achievable within the Construction Management Program, *embedded within the software at no cost for the credential.*
- Prepares student for the Construction Management in Training, (CMiT) Level 1 Nationally recognized Certification Exam with the Construction Management Association of America (CMAA)
- ALL classes transfer into the AS - Construction Management Program at Capital
- ALL classes transfer into the BS - Construction Management Program at CCSU
- WIOA eligible
- This Certificate will fulfill the Apprenticeship Educational requirements for two CT-Department of Labor Apprenticeship Programs as follows (I-i-T) Inspector-in-Training and (CM-i-T) Construction Manager-in-Training (to be finalized by June 2022)

Required Courses

ACCT 1130 - Principles of Financial Accounting *Credits: 3*
 CMGT 1110 - Construction Graphics/Quantity Take-Off *Credits: 3*
 CMGT 1120 - Construction Project Administration *Credits: 3*
 CMGT 1150 - Construction Building Systems *Credits: 3*
 CMGT 1160 - Heavy/Highway Systems *Credits: 3*
 CMGT 2150 - Construction Building Estimating *Credits: 3*
 CMGT 2160 - Heavy/Highway Estimating *Credits: 3*
 CSA 1110 - Introduction to Software Applications *Credits: 3*
 ENG 1010 - Composition *Credits: 3*
 MATH 1010 or higher *Credits: 3-4*

Total Credits: 30

Construction Management, AS (CNMG-AS)

Graduates of the program will acquire basic knowledge and skills in sustainable construction, administrative procedures, resource management and construction processes for building. Further, graduates will have the ability to utilize construction documents for quantity take-offs, to participate in construction job-site office meetings and to provide related documentation and correspondence. A graduate will have technical and analysis skills from hands-on consideration of complex projects that will position them for success in many areas within the construction industry. This certificate will prepare students for immediate employment in entry level jobs in the industry. This degree will also prepare students for transfer to baccalaureate degree programs in the field.

Learning Outcomes:

In addition to acquiring the general education competencies, upon completion of the program, the graduate will be able to:

- Interpret and effectively utilize construction and construction-related documents including reference materials, contracts, and specifications.
- Prepare quantity take-offs using manual mathematical models/techniques and takeoff software.
- Estimate construction costs for bidding and assess the appropriateness of various construction methods, materials, and equipment in specific situations.
- Identify construction equipment and tools and their use in Building Systems and Heavy/Highway Systems.
- Display the knowledge and skills required in the planning and management of a construction project including use of project software.
- Identify and resolve problems related to aspects of construction management.
- Identify Safety and Health Hazards and develop construction Safety Plans.
- Create a Construction Management Proposal and identify the roles and responsibilities of the Project Team Stakeholders.

Students earn "ProCore Certificates", Industry Certifications achievable within the Construction Management Program, *embedded within the software at no cost for the credential*. All courses transfer into the B.S. - Construction Management Program at CCSU

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 or higher *Credits: 3-4*

COMM 1501 - Visual Communication *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR PHYS 1201 - General Physics I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

CSA 1110 - Introduction to Software Applications *Credits: 3*

CMGT 1110 - Construction Graphics/Quantity Take-Off *Credits: 3*

CMGT 1120 - Construction Project Administration *Credits: 3*

CMGT 2285 - Construction Project Management *Credits: 3*

CMGT 1150 - Construction Building Systems *Credits: 3*

CMGT 1160 - Heavy/Highway Systems *Credits: 3*

CMGT 2150 - Construction Building Estimating *Credits: 3*

CMGT 2160 - Heavy/Highway Estimating *Credits: 3*

CMGT 2275 - Construction Planning *Credits: 3*

CMGT 2500 - Construction Business Principles *Credits: 3*

CMGT 2230 - Construction Safety *Credits: 3*

ECON 1002 - Principles of Microeconomics *Credits: 3*

Total Credits: 61

Construction Technology Career Program, AS (CTEC-AS)

This program is locally specialized as it provides technical knowledge for individuals interested in active participation in building our communities. Graduates are prepared for careers in the construction industry as construction managers, project superintendents, and building officials.

Learning Outcomes:

- Identify commonly used building materials.
- Develop basic business and accounting skills.
- Understand the different methods of construction, structural and mechanical systems, and surveying equipment.
- Understand and analyze construction contract documents and calculate construction estimates.
- Read and interpret blueprints.
- Develop technical communication skills for effective collaboration and cooperation with other students, instructors, clients, and other stakeholders.

The Construction Technology degree program will be lecture and studio based. The program will also provide hands-on building opportunities. For example, how to build formwork, tie rebars for footing, and calculating the number of cubic yards of concrete required. Furthermore, the class will teach about construction methods while maintaining building code requirements. Other opportunities will include creating sustainable building forms using advanced framing methods and using superior wall construction as the method to eliminate construction waste.

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*
ENG 1020 - Composition II and Literature *Credits: 3*
MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*
PHYS 1201 - General Physics I *Credits: 4*
ARCH 1002 - Architecture of the World *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Program Requirements (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*
ARCH 1008 - Construction Materials & Methods *Credits: 3*
ARCH 1129 - Fundamentals of Construction Management *Credits: 3*
ARCH 2010 - Site Design *Credits: 3*
ARCH 2015 - Construction Documents *Credits: 3*
ARCH 2029 - Structures *Credits: 3*
ARCH 2229 - Construction Estimating *Credits: 3*
BUSN 1100 - Introduction to Business *Credits: 3*
BUSN 1150 - Business Software Applications *Credits: 3*
BUSN 2100 - Business Communications *Credits: 3*
CAD 1140 - Architectural CAD *Credits: 3*
Elective - Choose any General Education Elective (3 credits)
Elective - Choose a Construction course or Internship (3 credits)

Total Credits: 61

Criminal Justice, AS (CRJS-AS)

This program is for students who are interested in a career in law enforcement, corrections, security, or the court and legal system. The Associates in Science degree will allow a student to pursue a career immediately upon completion or to transfer to a four-year institution. The program offers a general track in criminal justice or students can choose from the eight areas of concentration.

Degree concentration areas include:

- Criminal Justice: Computer Crime Investigations, AS (CRJS-AS-CCI) - Manchester and Naugatuck Valley
- Criminal Justice: Corrections, AS (CRJS-AS-COR) - Asnuntuck, Gateway, Housatonic, and Tunxis
- Criminal Justice: Criminal Investigations, AS (CRJS-AS-CRI) - Housatonic and Manchester
- Criminal Justice: Homeland Security, AS (CRJS-AS-HLS) - Three Rivers and Tunxis
- Criminal Justice: Juvenile Justice, AS (CRJS-AS-JJS) - Gateway and Middlesex
- Criminal Justice: Law and Legal, AS (CRJS-AS-LL) - Housatonic and Manchester
- Criminal Justice: Law Enforcement, AS (CRJS-AS-LE) - All campuses
- Criminal Justice: Victimology, AS (CRJS-AS-VCT) Capital, Gateway, Middlesex and Naugatuck Valley

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Acquire the skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

- OR** CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*
- POLS 1002 - American Government *Credits: 3*
- OR** POLS 1003 - State and Local Government *Credits: 3*
- OR** POLS 1020 - Introduction to Law *Credits: 3*

Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.

CJ Electives for General Degree (12 Credits)

CJS Elective - 4 CJS courses (courses are specific if an option is chosen) *Credits: 12*

Total Credits: 60-62

Criminal Justice: Computer Crime Investigations, AS (CRJS-AS-CCI)

Location: Manchester and Naugatuck Valley

Computer Crimes Investigations: The Computer Crimes Investigations concentration area is designed for students seeking to pursue a career investigating computer and technology related crimes or those already in the field seeking to gain additional credentials. It combines specialized criminal justice, skill development and general education coursework to provide students with the knowledge and skills they need for a career in digital investigations.

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Acquire the skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Computer Crimes Investigations Learning Outcomes:

- Explain the process of conducting computer crime investigations and indicating security characteristics, threats, and responses.
- Demonstrate comprehensive knowledge of cybercrime-focused digital forensics and develop the ability to apply digital forensic knowledge to cybercrime cases.
- Apply principles of evidence collection and standards of legal admissibility to digital evidence and computer crime investigations.
- Identify career paths in the field of computer crime investigations.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

OR CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.

Computer Crimes Investigations Electives: Select 4 Courses (12 credits)

- CJS 1520 - Introduction to Digital Forensic Investigations *Credits: 3*
- CJS 2200 - Criminal Investigations *Credits: 3*
- CJS 2220 - Computer Investigation Techniques *Credits: 3*
- CJS 2240 - Computer Crimes *Credits: 3*
- CJS 2340 - Computer Security and Data Protection *Credits: 3*
- CJS 2350 - Information Warfare and Security *Credits: 3*
- CIS 1103 - Computer Ethics *Credits: 3*
- CYS 1101 - Practices in Security Management *Credits: 3*
- CIS 1001 - Introduction to Computers *Credits: 3*
- OR CIS 1141 - Introduction to Management Information Systems *Credits: 3*
- CST 1121 - Networking I *Credits: 3*

Total Credits: 60-62

Criminal Justice: Corrections, AS (CRJS-AS-COR)

The Criminal Justice: Corrections degree prepares students for entry into the field of corrections or for advancement opportunities for those currently employed in the field. It combines specialized criminal justice, corrections, and general education coursework to provide students with the knowledge and skills they need in the corrections field.

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Develop skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Corrections Learning Outcomes:

- Explain the history and development of the system of corrections and community corrections in the United States and around the world and as well as the current role and function within the criminal justice system.
- Apply principles of constitutional and criminal laws that protect the rights of and regulate the conduct of individuals in a culturally diverse society in the context of correctional supervision.
- Demonstrate knowledge of theories, principles, and processes of the criminal justice system as they apply to the corrections field.
- Identify career paths in the field of corrections.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

OR CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.

Corrections Electives: Select 4 courses (12 credits)

- CJS 1020 - Introduction to Corrections *Credits: 3*
- CJS 1550 - Probation Practices and Policies *Credits: 3*
- CJS 2400 - Correctional Administration *Credits: 3*
- CJS 2410 - Correctional Counseling *Credits: 3*
- CJS 2430 - Institutional Treatment of the Offender *Credits: 3*
- CJS 2440 - Community Based Corrections *Credits: 3*
- CJS 2610 - Restorative Justice and Mediation *Credits: 3*
- PSY 2058 - Behavior Modification *Credits: 3*
- OR CJS 2800 - Victimology *Credits: 3*
- DARC 1058 - Biology of Addiction *Credits: 3*
- OR PSY 1040 - The Psychology of Addiction *Credits: 3*
- Combination of 3 one credit CJS courses *Credits: 3*

Total Credits: 60-62

Criminal Justice: Criminal Investigations, AS (CRJS-AS-CRI)

The Criminal Investigations concentration enables students to advance to investigative positions in their current employment or gain employment in an investigative position. It combines specialized criminal justice, investigative and general education coursework to provide students with the knowledge and skills needed in investigative roles.

Note: Current law enforcement officers may take courses in this track for professional development.

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Develop skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Criminal Investigations Learning Outcomes:

- Explain the practical, legal and logistical components of a criminal investigation.
- Apply principles of constitutional and criminal laws to criminal investigations with a focus on 4th amendment standards of search and seizure as well as admissibility of evidence.
- Demonstrate the ability to prepare written reports that integrate best practices for various types of investigations.
- Identify career paths that focus on investigations.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition Credits: 3

MATH 1000 or higher Credits: 3-4 (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course Credits: 3-4

Elective SCRX - Scientific Reasoning Course Credits: 3-4

OR Elective SCKX - Scientific Knowledge Course Credits: 3-4

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I Credits: 3

Elective ORAX - Oral Communication Course Credits: 3

CCS 1001 - College & Career Success Credits: 3

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course Credits: 3

OR CJS 2570 - Writing and Research for Criminal Justice Credits: 3

SOC 1001 - Principles of Sociology Credits: 3

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice Credits: 3

CJS 2110 - Criminal Law I Credits: 3

CJS 2130 - Evidence and Criminal Procedure Credits: 3

CJS 2010 - Criminology Credits: 3

OR SOC 2040 - Criminology Credits: 3

CJS 2095 - Practicum in Criminal Justice Credits: 3

OR CJS 2880 - Careers in Criminal Justice Credits: 3

CJS 2450 - Diversity and Multiculturalism in Criminal Justice Credits: 3

OR CJS 2470 - Fair and Impartial Policing Credits: 3

OR CJS 2550 - Ethical Issues in Criminal Justice Credits: 3

OR CJS 2940 - Contemporary Issues in Criminal Justice Credits: 3

POLS 1002 - American Government Credits: 3

OR POLS 1003 - State and Local Government *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.

Criminal Investigations Electives: Select 4 courses (12 credits)

- CJS 1390 - Interview and Interrogation *Credits: 3*
- CJS 2200 - Criminal Investigations *Credits: 3*
- CJS 2210 - Arson Investigation *Credits: 3*
- CJS 1520 - Introduction to Digital Forensic Investigations *Credits: 3*
- **OR** CJS 2220 - Computer Investigation Techniques *Credits: 3*
- ART 1450 - Digital Photography I *Credits: 3*
- **OR** CJS 2270 - Forensic and Crime Scene Photography *Credits: 3*
- CJS 2370 - Crime Scene Processing *Credits: 3*
- CJS 2380 - White Collar Crime *Credits: 3*
- CJS 2720 - Inside the Criminal Mind *Credits: 3*
- **OR** PSY 2087 - Forensic Psychology *Credits: 3*
- ANTH 1007 - Introduction to Forensic Anthropology *Credits: 3*
- Combination of 3 one credit CJS courses *Credits: 3*

Total Credits: 60-62

Criminal Justice: Homeland Security Certificate (CRJS-CC-HLS)

Location: Three Rivers and Tunxis

This certificate offers students an in-depth understanding of the interrelated duties, relationships and issues of the agencies associated with Homeland Security. Upon completion of the certificate, students will be able to identify, describe and analyze security threats as individuals and in coordinated team settings. It is based on a model developed by Global Corporate College and the Transportation Security Administration (TSA). Tunxis partnered with both agencies to offer these three courses to TSA employees. Students with this certificate are more desirable for TSA employment.

Learning Outcomes:

- Demonstrate an in-depth understanding of the interrelated duties, relationships and issues of the agencies associated with Homeland Security.

Required Courses

CJS 1060 - Introduction to Homeland Security *Credits: 3*

CJS 1580 - Intelligence Analysis and Security Management *Credits: 3*

CJS 2810 - Transportation and Border Security *Credits: 3*

Total Credits: 9

Criminal Justice: Homeland Security, AS (CRJS-AS-HLS)

Location: Three Rivers and Tunxis

The Homeland Security concentration prepares students for the interdisciplinary field of homeland security. It combines specialized criminal justice, homeland security and general education coursework to provide students with the knowledge and understanding needed for careers in homeland security as well as careers requiring skill sets in planning and disaster response.

Note: This concentration area integrates a model developed by Global Corporate College and the Transportation Security Administration (TSA).

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Acquire the skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Homeland Security Learning Outcomes:

- Explain the history and development of the field of homeland security in the United States and as well as the current role and function of agencies focused on national security, hazard mitigation and disaster response.
- Outline legal principles related to the field of homeland security as well as the administration of response organizations.
- Demonstrate knowledge of appropriate strategic, tactical and task considerations in responding to incidents of national significance.
- Identify career paths in the field of homeland security and disaster management.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

OR CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.

Homeland Security Electives: Select 4 courses (12 credits)

- CJS 1060 - Introduction to Homeland Security *Credits: 3*
- CJS 1390 - Interview and Interrogation *Credits: 3*
- CJS 1520 - Introduction to Digital Forensic Investigations *Credits: 3*
- CJS 1580 - Intelligence Analysis and Security Management *Credits: 3*
- CJS 1600 - Emergency Management and Disaster Mediation *Credits: 3*
- CJS 1720 - Domestic and International Terrorism *Credits: 3*
- CJS 2220 - Computer Investigation Techniques *Credits: 3*
- CJS 2810 - Transportation and Border Security *Credits: 3*
- CJS 2120 - Criminal Law II *Credits: 3*
- SOC 2003 - Introduction to Public Health *Credits: 3*

Total Credits: 60-62

Criminal Justice: Juvenile Justice, AS (CRJS-AS-JJS)

The Juvenile Justice concentration prepares students for work with juveniles and adolescents within the justice system and related fields. It combines specialized coursework in psychology, sociology, human services and criminal justice as well as general education coursework to provide students with the knowledge and skills they need in working with youth and adolescents. Students also gain experience in case management and intervention strategies.

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Acquire the skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Juvenile Justice Learning Outcomes:

- Outline the major developmental theories and the relationship to juvenile delinquency.
- Describe the history and evolution of the juvenile justice system in America.
- Identify contemporary issues in juvenile justice.
- Articulate significant differences between the juvenile and adult justice systems in the United States.
- Apply evidence-based intervention strategies in addressing juvenile delinquency and identify career paths that involve work with juveniles.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

OR CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government Credits: 3

OR POLS 1020 - Introduction to Law Credits: 3

Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.

Juvenile Justice Electives: Select 4 courses (12 credits)

- CJS 1390 - Interview and Interrogation Credits: 3
- CJS 2020 - Juvenile Delinquency Credits: 3
- CJS 2030 - Juvenile Justice Credits: 3
- CJS 2610 - Restorative Justice and Mediation Credits: 3
- **OR** CJS 2440 - Community Based Corrections Credits: 3
- CJS 2720 - Inside the Criminal Mind Credits: 3
- **OR** PSY 2087 - Forensic Psychology Credits: 3
- CJS 2800 - Victimology Credits: 3
- CJS 2820 - Criminal Court Systems and Practices Credits: 3
- PSY 2049 - Disorders in Childhood and Adolescence Credits: 3
- DARC 1058 - Biology of Addiction Credits: 3
- **OR** PSY 1040 - The Psychology of Addiction Credits: 3
- PSY 2070 - Psychology of Trauma Credits: 3

Total Credits: 60-62

Criminal Justice: Law and Legal, AS (CRJS-AS-LL)

Location: Housatonic and Manchester

Law and Legal: The Law and Legal concentration provides students with an understanding of fundamental principles of law and analyzes the role and function of the American legal system within a societal and political context. This course of study develops critical thinking, logical reasoning and writing skills, and prepares students for baccalaureate study and law-related careers.

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Acquire the skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Law and Legal Learning Outcomes:

- Explain the history and development of state, local and federal court systems in the United States and as well as the current role and function within the criminal justice system.
- Demonstrate knowledge of theories, principles, and processes of the criminal justice system as they apply to the law and courts.
- Outline the rights and protections afforded to citizens under the U.S. Constitution.
- Identify career paths in the law and legal field.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

OR CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

****Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.****

Law and Legal Electives: Select 4 Courses (12 credits)

- CJS 1390 - Interview and Interrogation *Credits: 3*
- CJS 2100 - Constitutional Law *Credits: 3*
- **OR** POLS 2010 - Constitutional Law *Credits: 3*
- CJS 2120 - Criminal Law II *Credits: 3*
- CJS 2030 - Juvenile Justice *Credits: 3*
- CJS 2380 - White Collar Crime *Credits: 3*
- CJS 2480 - Research Methods in Criminal Justice *Credits: 3*
- CJS 2820 - Criminal Court Systems and Practices *Credits: 3*
- COMM 2303 - Argumentation and Debate *Credits: 3*
- POLS 1020 - Introduction to Law *Credits: 3*
- Combination of 3 one credit CJS courses *Credits: 3*

Total Credits: 60-62

Criminal Justice: Law Enforcement, AS (CRJS-AS-LE)

Location: Available at all of the CT State Community College campuses.

The Criminal Justice: Law Enforcement degree provides specialty, in-depth training to students interested in pursuing a career in law enforcement at the state, local or federal levels. It combines specialized criminal justice, law enforcement, and general education coursework to provide students with the knowledge and skills they need in the law enforcement field.

Criminal Justice Program Goals:

- Complete an Associate of Science degree in Criminal Justice.
- Acquire the skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.

Criminal Justice Learning Outcomes:

- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Law Enforcement Learning Outcomes:

- Explain the history and development of state, local and federal law enforcement agencies in the United States and as well as the current role and function within the criminal justice system.
- Apply principles of constitutional and criminal laws that protect the rights of and regulate the conduct of individuals in a culturally diverse society in the context of policing.
- Demonstrate knowledge of theories, principles, and processes of the criminal justice system as they apply to the law enforcement field.
- Identify career paths in the field of law enforcement.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

OR CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.

Law Enforcement Electives: Select 4 Courses (12 credits)

- CJS 1050 - Introduction to Law Enforcement *Credits: 3*
- **OR** CJS 1200 - Police and the Community *Credits: 3*
- CJS 1240 - Spanish for Criminal Justice Professionals *Credits: 3*
- CJS 1390 - Interview and Interrogation *Credits: 3*
- CJS 2200 - Criminal Investigations *Credits: 3*
- CJS 2370 - Crime Scene Processing *Credits: 3*
- CJS 2500 - Police Management and Administration *Credits: 3*
- CJS 2090 - Police Management Seminar *Credits: 3*
- CJS 2530 - Interpersonal Dynamics for Criminal Justice Professionals *Credits: 3*
- CJS 2580 - Street Gangs and Organized Crime *Credits: 3*
- Combination of 3 one credit CJS courses *Credits: 3*

Total Credits: 60-62

Criminal Justice: Victimology, AS (CRJS-AS-VCT)

The Victimology concentration prepares students for entry into a wide variety of positions in law enforcement, criminal justice, the courts, corrections, and victim services programs, as well as professional settings involving work with victims of crime, their families, and the community at large. It combines specialized criminal justice, victimology and general education coursework to provide students with knowledge and skills needed in working with victims.

Criminal Justice Learning Outcomes:

- Complete an Associate of Science degree in Criminal Justice.
- Develop skills necessary to secure employment within field of criminal justice.
- Transfer into a Bachelor Degree Program.
- Demonstrate an understanding of the roles of police, courts and corrections and explain the functions they serve within the criminal justice system and the community.
- Apply principles of constitutional and criminal laws that protect the rights of and regulates conduct of a culturally diverse society.
- Demonstrate knowledge of theories, principles, processes of the criminal justice system.
- Prepare written documents and deliver oral presentations related to the criminal justice field.

Victimology Student Learning Outcomes:

- Explain the historical development of victimology and the victim's movement in the United States.
- Demonstrate knowledge of theories, principles, and processes of the criminal justice system as they apply to working with victims of crime.
- Outline legal principles related to victim's rights.
- Identify career paths that involve working with victims.

Criminal Justice General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Recommended Science: CJS 2260 or CJS 2850

PSY 1011 - General Psychology I *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Criminal Justice Additional General Education (6 credits)

Elective WRIX - Written Communication II Course *Credits: 3*

OR CJS 2570 - Writing and Research for Criminal Justice *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Criminal Justice Program Core (21 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

OR CJS 2880 - Careers in Criminal Justice *Credits: 3*

CJS 2450 - Diversity and Multiculturalism in Criminal Justice *Credits: 3*

OR CJS 2470 - Fair and Impartial Policing *Credits: 3*

OR CJS 2550 - Ethical Issues in Criminal Justice *Credits: 3*

OR CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

****Courses taken as part of the Criminal Justice core may not be used to satisfy the concentration electives.****

Victimology Electives: Select 4 Courses (12 credits)

- CJS 1390 - Interview and Interrogation *Credits: 3*
- CJS 2200 - Criminal Investigations *Credits: 3*
- CJS 2610 - Restorative Justice and Mediation *Credits: 3*
- CJS 2720 - Inside the Criminal Mind *Credits: 3*
- **OR** PSY 2087 - Forensic Psychology *Credits: 3*
- CJS 2800 - Victimology *Credits: 3*
- CJS 2820 - Criminal Court Systems and Practices *Credits: 3*
- PSY 2070 - Psychology of Trauma *Credits: 3*
- SOC 2057 - Sociology of Mental Health & Illness *Credits: 3*
- PSY 2010 - Death and Dying *Credits: 3*
- **OR** SOC 2025 - Death and Dying *Credits: 3*
- SOC 2020 - Racial and Ethnic Diversity *Credits: 3*

Total Credits: 60-62

Criminology Studies - TAP/CSCU Transfer Degree, AA (CRIM-AA-TAP)

This program is a **CSCU TAP Transfer Degree** that is intended for Connecticut Community College students to transfer to Connecticut State Universities (Southern CT State University, Central CT State University, Eastern State University, Western State University) and Charter Oak State College without either losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline.

Learning Outcomes:

- Complete an Associate of Arts degree in Criminology Studies.
- Transfer seamlessly into a Bachelor of Arts or Science Degree in Criminology or Sociology with a concentration in Criminology with junior-level status at the receiving CSCU institution as part of the CSCU Transfer Ticket program.
- Identify and explain the basic structures and functions of law enforcement, courts, and corrections within the criminal justice system.
- Interpret the basic concepts and functions of criminal law.
- Integrate multidisciplinary theories which constitute the basis for understanding criminality and victimization.
- Apply constitutional principles that protect the rights of individuals and regulate criminal justice practices and procedures.

Framework Courses (33-35 Credits)

ENG 1010 - Composition *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

Elective SCKXX - Scientific Knowledge Course *Credits: 3-4*

to meet the above science requirements it is recommended to take CJS 2850 to fulfill Scientific Reasoning OR CJS 2260 to fulfill Scientific Knowledge & Understanding. Students can earn credit for only one of these courses.

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Recommended: 2000-level literature course

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Pathway Courses (27 credits)

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CJS 1020 - Introduction to Corrections *Credits: 3*

CJS 1050 - Introduction to Law Enforcement *Credits: 3*

CJS 2010 - Criminology *Credits: 3*

OR SOC 2040 - Criminology *Credits: 3*

CJS 2100 - Constitutional Law *Credits: 3*

OR CJS 2130 - Evidence and Criminal Procedure *Credits: 3*

Unrestricted Electives - 3 courses *Credits 9*

Select one of the following:

CJS 2020 - Juvenile Delinquency *Credits: 3*

OR SOC 2041 - Juvenile Delinquency *Credits: 3*

CJS 2030 - Juvenile Justice *Credits: 3*

CJS 2110 - Criminal Law I *Credits: 3*

CJS 2200 - Criminal Investigations *Credits: 3*

CJS 2260 - Introduction to Forensic Science *Credits: 3 if not taken as a part of General Education*

CJS 2800 - Victimology *Credits: 3*

CJS 2850 - Forensic Science with Laboratory *Credits: 4*

CJS 2095 - Practicum in Criminal Justice *Credits: 3*

CJS 2940 - Contemporary Issues in Criminal Justice *Credits: 3*

CJS 2098 - Special Topics in Criminal Justice *Credits: 1-3*

Total Credits: 60-63

Culinary & Hospitality: Culinary Arts Certificate (CULI-CC)

The Culinary Arts Certificate program is the first step toward pursuing a career in commercial food preparation. Academic credits from this program may be transferred to associate degree programs in other CT State Hospitality Programs.

The American Culinary Federation Education Foundation, Inc. Accrediting Commission/Committee accredits the Culinary Arts and Foodservice Management programs. Along with classroom and laboratory study, students will participate in an individually planned, 150 or 300-hour cooperative work experience course, earning credit toward graduation while employed. Graduates may transfer credits and earn baccalaureate degrees at various institutions of higher learning. Students may enroll in this program full or part-time, day or evening.

Graduates from Accredited programs may apply to the American Culinary Federation (ACF) to become a Certified Fundamentals Cook®, Certified Culinarian®, both nationally recognized certifications. The American Culinary Federation Education Foundation, Inc. Accrediting Commission/Committee accredits the Culinary Arts and Foodservice Management programs.

Learning Outcomes:

Upon successful completion of all Culinary Arts certificate program requirements, graduates will:

- **Professionalism:** Summarize basic principles and concepts of the hospitality industry with its varied career tracks, and apply personal skills, including but not limited to adherence to accepted professional standards and codes of conduct.
- **Leadership:** Develop and meet the highest standards of professionalism in ethical standards and behavior in management.
- **Teamwork:** Recognize the importance of working groups, mutual responsibility, and diversity of thought to effective outcomes.
- **Culinary Skills:** Analyze theory and techniques skills of food preparation and presentation.
- **Safety & Sanitation:** Safely operate commercial kitchen equipment in an efficient manner and apply safety and environmental sanitation standards of foodservice operations to obtain a ServSafe® certificate.
- **Service:** Analyze methods of service and management principles for all hospitality operations and learn beverage service through varied styles and menu offerings.
- **Cost Controls:** Apply basic accounting principles and procedures in the acquisition, costing and inventory controls related to the hospitality and food service industry.
- **Technology:** Apply technology to food service and hospitality operations.
- **Baking Skills:** Develop knowledge and skills in basic baking and pastry arts.
- **International Cuisine:** Study world cuisines in contemporary cooking as well as their cultural impact on current culinary trends.
- **Production:** Prepare a business plan which includes menu design, execution and production, which includes catering, classical cold foods preparation, carvings and displays.
- **Classical Techniques:** Learn the basics of classical techniques in culinary and pastry arts and how they apply to current trends.
- **Nutrition:** Analyze theory of nutritional standards and how they can be applied to various food service operations.
- **Cooperative Experience:** Transfer knowledge and apply skills in a production environment to obtain experience in the food service industry.

Industry Certifications Offered within program: ServSafe® Food Protection Manager, and TIPS® Training Industry Certifications prepared for by program: Certified Fundamentals Cook®, Certified Culinarian.

Required Courses

HOSP 1101 - Principles of Food Preparation *Credits: 3*
 HOSP 1103 - Principles of Baking I *Credits: 3*
 HOSP 1109 - Food Safety Certification *Credits: 1*
 HOSP 1212 - Advanced Food Preparation *Credits: 4*
 HOSP 1135 - Service Management *Credits: 3*
 NTRN 1002 - Nutrition I: Principles of Nutrition *Credits: 3*
 HOSP 2201 - International Foods *Credits: 4*
OR BIO 1011 - Introduction to Nutrition *Credits: 3*
 HOSP 1215 - Principles of Baking II *Credits: 3*
 HOSP 2210 - Catering Management *Credits: 4*
 HOSP 2294 - Cooperative Education/Work Experience *Credits: 3*

Total Credits: 30-31

Culinary & Hospitality: Culinary Arts, AS (CULI-AS)

The Culinary Arts Associate degree program will give students the knowledge, tools, and skills necessary to be successful in the food service industry. Students will also take general education courses to improve employability, job performance and course transferability to another college or university.

The American Culinary Federation Education Foundation, Inc. Accrediting Commission/Committee accredits the Culinary Arts and Foodservice Management programs. Along with classroom and laboratory study, students will participate in an individually planned, 150 or 300-hour cooperative work experience course, earning credit toward graduation while employed. Graduates may transfer credits and earn baccalaureate degrees at various institutions of higher learning. Students may enroll in this program full or part-time, day or evening.

In addition to this degree, by taking additional credit hours, students may earn an associate degree in Foodservice Management or Hotel-Tourism Management. Graduates from this program may apply to the American Culinary Federation (ACF) to become a Certified Fundamentals Cook®, Certified Culinarian®, both nationally recognized certifications.

Learning Outcomes:

Upon successful completion of all Culinary Arts degree program requirements, graduates will:

- **Professionalism:** Summarize basic principles and concepts of the hospitality industry with its varied career tracks, and apply personal skills, including but not limited to adherence to accepted professional standards and codes of conduct.
- **Leadership:** Develop and meet the highest standards of professionalism in ethical standards and behavior in management.
- **Teamwork:** Recognize the importance of working groups, mutual responsibility, and diversity of thought to effective outcomes.
- **Culinary Skills:** Analyze theory and techniques skills of food preparation and presentation.
- **Safety & Sanitation:** Safely operate commercial kitchen equipment in an efficient manner and apply safety and environmental sanitation standards of foodservice operations to obtain a ServSafe® certificate.
- **Service:** Analyze methods of service and management principles for all hospitality operations and learn beverage service through varied styles and menu offerings.
- **Cost Controls:** Apply basic accounting principles and procedures in the acquisition, costing and inventory controls related to the hospitality and food service industry.
- **Sustainable:** Explain and describe the importance of a variety of sustainable practices in a food service operation and how they relate to the environment and the success of the organization.
- **Technology:** Apply technology to food service and hospitality operations.
- **Baking Skills:** Develop knowledge and skills in basic baking and pastry arts, including cake decorating and artisan breads.
- **International Cuisine:** Study world cuisines in contemporary cooking as well as their cultural impact on current culinary trends.
- **Production:** Prepare a business plan which includes menus design, execution and production, which include, catering, classical cold foods preparation, carvings and displays.
- **Classical Techniques:** Learn the basics of classical techniques in culinary and pastry arts and how they apply to current trends.
- **Nutrition:** Analyze theory of nutritional standards and how they can be applied to various food service operations.
- **Cooperative Experience:** Transfer knowledge and apply skills in a production environment to obtain experience in the food service industry.
- **General Education:** Complete the comprehensive learning outcomes identified with the General Education Core.

Industry Certifications Offered within program: ServSafe® Food Protection Manager, and TIPS® Training Industry Certifications prepared for by program: Certified Fundamentals Cook®, Certified Culinarian®, Certified Fundamentals Pastry Cook™, or Certified Pastry Culinarian®

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1001 - Quantitative Literacy *Credits: 3 (or higher - college level)*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1011 - Introduction to Nutrition *Credits: 3*

OR NTRN 1002 - Nutrition I: Principles of Nutrition *Credits: 3*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (43 credits)

HOSP 1100 - Introduction to the Hospitality Industry *Credits: 3*

HOSP 1101 - Principles of Food Preparation *Credits: 3*

HOSP 1103 - Principles of Baking I *Credits: 3*

HOSP 1109 - Food Safety Certification *Credits: 1*

HOSP 1212 - Advanced Food Preparation *Credits: 4*

HOSP 1135 - Service Management *Credits: 3*

HOSP 2201 - International Foods *Credits: 4*

HOSP 2210 - Catering Management *Credits: 4*

HOSP 2111 - Food & Beverage Cost Control *Credits: 3*

HOSP 1107 - Icing Artistry I *Credits: 3*

OR HOSP 2216 - Artisan Bread *Credits: 3*

OR HOSP 2225 - Principles of Baking III: Chocolates and Confections *Credits: 3*

HOSP 1215 - Principles of Baking II *Credits: 3*

HOSP 2230 - Sustainable Food Service Management *Credits: 3*

HOSP 2290 - Classical Cuisine *Credits: 3*

HOSP 2294 - Cooperative Education/Work Experience *Credits: 3*

Total Credits: 64-65

Culinary & Hospitality: Dietary Supervision Certificate (DITS-CC)

The certificate is designed primarily for health care food service personnel seeking professional development. 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.

Learning Outcomes:

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

- Identify agents and vectors of food-borne illness.
- Employ proper sanitary procedures in the purchasing, receiving, storing, issuing, preparing, and serving of food products.
- Design basic sanitation training for foodservice employees.
- Discuss federal, state, and local regulations and standards of foodservice sanitation.
- Inspect, from a sanitation viewpoint, equipment, and facility design.
- Qualify for certification in applied foodservice sanitation from the Educational Foundation of the National Restaurant Association.
- Define, discuss, and employ basic food preparation theories and techniques.
- Recognize and use a variety of kitchen tools, equipment, and raw food products.
- Plan, organize, prepare, and evaluate finished food items from the raw state.
- Interpret, and evaluate written recipes; mathematically expand and reduce these recipes; be able to pre-cost the recipes; understand computer applications regarding these calculations.
- Define, discuss, and explain the importance of nutrition to health status.
- Apply acquired nutrition knowledge to daily food preparation.

Required Courses

HOSP 1101 - Principles of Food Preparation *Credits: 3*

OR HOSP 1212 - Advanced Food Preparation *Credits: 4*

HOSP 1109 - Food Safety Certification *Credits: 1*

BIO 1011 - Introduction to Nutrition *Credits: 3*

Total Credits: 7-8

Culinary & Hospitality: Foodservice Management, AS (FODS-AS)

The Foodservice Management Associate degree program provides education and training in subjects ranging from food production to food protection, marketing, and management. Students will also take general education courses to improve employability, job performance and course transferability to another college or university.

The American Culinary Federation Education Foundation, Inc. Accrediting Commission/Committee accredits the Culinary Arts and Foodservice Management programs. Along with classroom and laboratory study, students will participate in an individually planned, 150 or 300-hour cooperative work experience course, earning credit toward graduation while employed. Graduates may transfer credits and earn baccalaureate degrees at various institutions of higher learning. Students may enroll in this program full or part-time, day or evening.

In addition to this degree, by taking additional credit hours, students may earn an associate degree in Culinary Arts or Hotel-Tourism Management. Graduates from this program may apply to the American Culinary Federation (ACF) to become a Certified Fundamentals Cook®, Certified Culinarian™, both nationally recognized certifications.

Learning Outcomes:

Upon successful completion of all Food Service Management degree program requirements, graduates will:

- **Professionalism:** Summarize basic principles and concepts of the hospitality industry with its varied career tracks, and apply personal skills, including but not limited to adherence to accepted professional standards and codes of conduct.
- **Leadership:** Develop and meet the highest standards of professionalism in ethical standards and behavior in management.
- **Teamwork:** Recognize the importance of working groups, mutual responsibility, and diversity of thought to effective outcomes.
- **Culinary Skills:** Analyze theory and techniques skills of food preparation and presentation.
- **Safety & Sanitation:** Safely operate commercial kitchen equipment in an efficient manner and apply safety and environmental sanitation standards of foodservice operations to obtain a ServSafe® certificate.
- **Service:** Analyze methods of service and management principles for all hospitality operations and learn beverage service through varied styles and menu offerings.
- **Cost Controls:** Apply basic accounting principles and procedures in the acquisition, costing and inventory controls related to the hospitality and food service industry.
- **Financial Acumen:** Knowledge and understanding of basic financial and accounting principles, costing, inventory control, in order to have sound judgment when making decisions.
- **Sustainable:** Explain and describe the importance of a variety of sustainable practices in a food service operation and how they relate to the environment and the success of the organization.
- **Technology:** Apply technology to food service and hospitality operations.
- **Nutrition:** Analyze theory of nutritional standards and how they can be applied to various food service operations.
- **International Cuisine:** Study world cuisines in contemporary cooking as well as their cultural impact on current culinary trends.
- **Production:** Prepare a business plan which includes menu design, execution, and production, which includes catering, classical cold foods preparation, carvings and displays.
- **Classical Techniques:** Learn the basics of classical techniques in culinary and pastry arts and how they apply to current trends.
- **Sales and Marketing:** Differentiate styles of marketing, sales analysis, and planning for the hospitality industry.
- **Human Resource:** Analyze how human resources practices can support an organization's strategic and operational objectives and enhance long-term performance maximizing individual and group performance.
- **Customers Relations:** Recognize and value the importance of the hospitality consumer, their needs, experience, and diversity, in both the operational and strategic context.
- **Cooperative Experience:** Transfer knowledge and apply skills in a production environment to obtain experience in the food service industry.
- **General Education:** Complete the comprehensive learning outcomes identified with the General Education Core.

Industry Certifications Offered within program: ServSafe® Food Protection Manager, and TIPS® Training Industry Certifications prepared for by program: Certified Fundamentals Cook®, Certified Culinarian®

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1001 - Quantitative Literacy *Credits: 3 (or higher - college level)*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1011 - Introduction to Nutrition *Credits: 3*

OR NTRN 1002 - Nutrition I: Principles of Nutrition *Credits: 3*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

HOSP 1100 - Introduction to the Hospitality Industry *Credits: 3*

HOSP 1101 - Principles of Food Preparation *Credits: 3*

HOSP 1109 - Food Safety Certification *Credits: 1*

HOSP 1212 - Advanced Food Preparation *Credits: 4*

HOSP 1135 - Service Management *Credits: 3*

HOSP 2201 - International Foods *Credits: 4*

OR HOSP 2210 - Catering Management *Credits: 4*

HOSP 2111 - Food & Beverage Cost Control *Credits: 3*

HOSP 2230 - Sustainable Food Service Management *Credits: 3*

HOSP 2233 - Hospitality Human Resources Management *Credits: 3*

HOSP 2237 - Hospitality Marketing *Credits: 3*

HOSP 2238 - Customer Relationship Management *Credits: 3*

HOSP 2294 - Cooperative Education/Work Experience *Credits: 3*

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

Total Credits: 60-61

Culinary & Hospitality: Hospitality and Tourism Management Certificate (HTMG-CC)

Students will be exposed to a broad range of subjects covering the inter-related areas of the tourism industry, both by means of theoretical and practical work within the college, and by internships in recognized hotels, restaurants, or related institutions, as an integral part of the program. The objective is to train students to a level of all-around competence in the varied operations of the hospitality industry by confronting students with the contemporary issues and challenges that face the industry and by developing their abilities to initiate and manage change and to produce a solid foundation on which a future management career may be built. Graduates will be prepared to embark upon their careers with confidence, armed with the knowledge, the basic experience and the interpersonal skills that will allow them to succeed in the hotel-tourism industry.

Learning Outcomes:

Upon successful completion of all Hospitality & Tourism Management certificate requirements, graduates will

- **Professionalism:** Summarize basic principles and concepts of the hospitality industry with its varied career tracks, and apply personal skills, including but not limited to adherence to accepted professional standards and codes of conduct.
- **Leadership:** Develop and meet the highest standards of professionalism and ethical standards of behavior in management.
- **Teamwork:** Recognize the importance of working groups, mutual responsibility, and diversity of thought to effective outcomes.
- **Culinary Skills:** Analyze theory and techniques skills of food preparation and presentation.
- **Safety & Sanitation:** Safely operate commercial kitchen equipment in an efficient manner and apply safety and environmental sanitation standards of foodservice operations to obtain a ServSafe® certificate.
- **Service:** Analyze methods of service and management principles for all hospitality operations and learn beverage service through varied styles and menu offerings.
- **Technology:** Apply technology to food service and hospitality operations.
- **Customer Relations:** Recognize and value the importance of the hospitality consumer, their needs, experience, and diversity, in both the operational and strategic context
- **Critical Thinking:** Demonstrate creativity and sound thinking in solving management problems.
- **Sales and Marketing:** Differentiate styles of marketing, sales analysis, and planning for the hospitality industry.
- **Human Resource:** Analyze how human resources practices can support an organization's strategic and operational objectives and enhance long-term performance maximizing individual and group performance.
- **Intercultural Awareness:** Comprehend how various cultural differences impact the hospitality industry from a local, regional, national, and international perspective.
- **Communication:** Communicate effectively using written, oral, and nonverbal techniques in the gathering and presenting of information in hospitality enterprises
- **Cooperative Experience:** Transfer knowledge and apply skills in a performance environment to demonstrate the unique professional requirements necessary for a successful career in the hospitality industry.

Required Courses

HOSP 1101 - Principles of Food Preparation *Credits: 3*
 HOSP 1109 - Food Safety Certification *Credits: 1*
 HOSP 1135 - Service Management *Credits: 3*
 HOSP 2242 - Hotel Management *Credits: 3*
 HOSP 2233 - Hospitality Human Resources Management *Credits: 3*
 HOSP 2237 - Hospitality Marketing *Credits: 3*
 HOSP 2238 - Customer Relationship Management *Credits: 3*
 HOSP 1141 - Principles of Tourism and Travel *Credits: 3*
 HOSP 2244 - Meetings, Conventions & Special Events Management *Credits: 3*
 HOSP 2294 - Cooperative Education/Work Experience *Credits: 3*

Total Credits: 28

Culinary & Hospitality: Hospitality and Tourism Management, AS (HTMG-AS)

The Associate in Science degree in Hospitality and Tourism Management provides students with learning opportunities that introduce and reinforce academic and occupational knowledge, skills, and attitudes required for sustainable careers. Industry-focused courses, such as Principles of Food Preparation, Service Management, Meeting, Convention and Special Events Management, Hotel Management, Hospitality Marketing and Guest Relations provide a solid foundation needed for success in hospitality operations. The Internship is a key component of the program, giving students real industry experience and a course focused on career development and real-world workplace issues.

Learning Outcomes:

Upon successful completion of all Hospitality & Tourism degree program requirements, graduates will:

- **Professionalism:** Summarize basic principles and concepts of the hospitality industry with its varied career tracks, and apply personal skills, including but not limited to adherence to accepted professional standards and codes of conduct.
- **Leadership:** Develop and meet the highest standards of professionalism and ethical standards of behavior in management.
- **Teamwork** Recognize the importance of working groups, mutual responsibility, and diversity of thought to effective outcomes
- **Culinary Skills:** Analyze theory and techniques skills of food preparation and presentation.
- **Safety & Sanitation:** Safely operate commercial kitchen equipment in an efficient manner and apply safety and environmental sanitation standards of foodservice operations to obtain a ServSafe® certificate.
- **Service:** Analyze methods of service and management principles for all hospitality operations and learn beverage service through varied styles and menu offerings.
- **Cost Controls:** Apply basic accounting principles and procedures in the acquisition, costing and inventory controls related to the hospitality and food service industry.
- **Financial Acumen:** Knowledge and understanding of basic financial and accounting principles, costing, inventory control, in order to have sound judgment when making decisions.
- **Technology:** Apply technology to food service and hospitality operations.
- **Nutrition:** Analyze theory of nutritional standards and how they can be applied to various food service operations.
- **Customer Relations** Recognize and value the importance of the hospitality consumer, their needs, experience, and diversity, in both the operational and strategic context
- **Critical Thinking** Demonstrate creativity and sound thinking in solving management problems.
- **Sales and Marketing:** Differentiate styles of marketing, sales analysis, and planning for the hospitality industry.
- **Human Resource:** Analyze how human resources practices can support an organization's strategic and operational objectives and enhance long-term performance maximizing individual and group performance.
- **Intercultural Awareness** Comprehend how various cultural differences impact the hospitality industry from a local, regional, national, and international perspective
- **Communication** Communicate effectively using written, oral, and nonverbal techniques in the gathering and presenting of information in hospitality enterprises
- **Cooperative Experience:** Transfer knowledge and apply skills in a performance environment to demonstrate the unique professional requirements necessary for a successful career in the hospitality industry
- **General Education:** Complete the comprehensive learning outcomes identified with the General Education Core.

This program prepares students to begin or advance in careers in hotel, food service and tourism management, convention and event planning, and hospitality sales. Graduates enter the growing hospitality industry as operational trainees and entry level supervisory positions. Although the program is not primarily intended to prepare students to transfer to a bachelor's degree program, many students do transfer to bachelor's degree programs in hospitality and tourism management.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1000 or higher *Credits: 3-4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 BIO 1011 - Introduction to Nutrition *Credits: 3*
 GEOG 1010 - World Regional Geography *Credits: 3*
 COMM 1301 - Public Speaking *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40 credits)

HOSP 1100 - Introduction to the Hospitality Industry *Credits: 3*
HOSP 1101 - Principles of Food Preparation *Credits: 3*
HOSP 1109 - Food Safety Certification *Credits: 1*
BMGT 2020 - Principles of Management *Credits: 3*
ACCT 1130 - Principles of Financial Accounting *Credits: 3*
HOSP 1135 - Service Management *Credits: 3*
HOSP 2111 - Food & Beverage Cost Control *Credits: 3*
HOSP 2233 - Hospitality Human Resources Management *Credits: 3*
 OR BMGT 2200 - Human Resource Management *Credits: 3*
HOSP 2237 - Hospitality Marketing *Credits: 3*
HOSP 2238 - Customer Relationship Management *Credits: 3*
HOSP 1141 - Principles of Tourism and Travel *Credits: 3*
HOSP 2242 - Hotel Management *Credits: 3*
HOSP 2244 - Meetings, Conventions & Special Events Management *Credits: 3*
HOSP 2294 - Cooperative Education/Work Experience *Credits: 3*

Total Credits: 61-63

Culinary & Hospitality: Hotel Management, AS (HTLM-AS)

****A recommendation to discontinue this program is pending review by the Board of Regents. Students interested in this discipline are encouraged to enroll in Culinary & Hospitality: Hospitality and Tourism Management, AS (HTMG-AS).****

The Associate in Science degree in Hotel Management prepares students interested in careers in the management and day-to-day operations of hotels, inns, and other lodging businesses. This hospitality/ business degree teaches the technology used in the industry, cost controls, marketing, how to "wow" the customer and create customer loyalty, legal, accounting and human resources (hiring, firing of staff, training and evaluation of employees) with emphasis on the lodging industry. Internships provide students with industry experience and teaches how to work effectively as a team member in the hospitality industry.

Learning Outcomes:

- Demonstrate the processing of reservations, registering guests, processing guest departures, and resolving guest complaints.
- Describe functional relationships among hotel divisions and departments
- Identify and implement systems and processes for room status changes, front office posting, telephone/PBX, bank maintenance, cash transactions, and security and guest keys.
- Effectively work as a team member, serve clients and customers, teach others new skills, exercise leadership behavior, and work with others from diverse backgrounds.
- Identify current trends in the lodging industry
- Perform basic mathematical computations accurately, especially regarding guest accounting, night audits, and cost controls for hotel and food and beverage operations within the hotel.
- Describe and apply marketing, sales and merchandising methods in lodging operations.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1001 - Quantitative Literacy *Credits: 3 (or higher - college level)*

PHIL 1101 - Ethics *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

PSY 1011 - General Psychology I *Credits: 3*

OR ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR SOC 2020 - Racial and Ethnic Diversity *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40 credits)

HOSP 1100 - Introduction to the Hospitality Industry *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

HOSP 1304 - Hospitality Customer Relations *Credits: 3*

HOSP 1117 - Beverage Management *Credits: 3*

HOSP 2111 - Food & Beverage Cost Control *Credits: 3*

HOSP 2301 - Hospitality Law *Credits: 3*

HOSP 2237 - Hospitality Marketing *Credits: 3*

HOSP 2244 - Meetings, Conventions & Special Events Management *Credits: 3*

HOSP 2406 - Hotel Accounting & Front Office Management *Credits: 3*

HOSP 2095 - Hospitality Management Internship/Work Experience I *Credits: 3*

HOSP 2195 - Hospitality Management Internship/Work Experience II *Credits: 1*

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BMGT 2200 - Human Resource Management *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

Total Credits: 61-63

Culinary & Hospitality: Meetings, Conventions & Special Events Management Certificate (MCSE-CC)

****A recommendation to discontinue this program is pending review by the Board of Regents. Students interested in this discipline are encouraged to enroll in Culinary & Hospitality: Hospitality and Tourism Management Certificate (HTMG-CC).****

This certificate is designed for students seeking careers in the growing field of meeting planning. It will also develop and update the skills of those presently in the field. The certificate emphasizes the management of and services for meetings, conventions, trade shows, and special events. Students will be prepared for positions in such areas as independent or entry-level corporate meeting planning; conference, trade show, and association management; and convention/meeting services in the hotel industry. The certificate will also enable the veteran meeting planner to obtain college credentials in his/her profession. Furthermore, it gives administrative assistants and others who plan meetings as part of their regular jobs a formal opportunity to learn about this industry and enhance their planning skills.

Learning Outcomes:

- Describe, define, and interpret the requirements for planning successful meetings, conventions, trade shows and special events.
- Describe the roles of meeting planner, Convention & Visitors Bureaus, convention centers and event venues.
- Discuss the economic impact of the meeting and convention industry.
- Know the various career opportunities in the industry.
- Understand the vocabulary and acronyms of the industry
- Demonstrate knowledge of the financial aspects and budgeting for meetings.
- Understand the legal and marketing components of meetings.
- Describe how to choose the right location and venue for different types of meetings.

Required Courses

BUSN 2100 - Business Communications *Credits: 3*

HOSP 1100 - Introduction to the Hospitality Industry *Credits: 3*

BMKT 2015 - Principles of eBusiness *Credits: 3*

HOSP 2301 - Hospitality Law *Credits: 3*

HOSP 2237 - Hospitality Marketing *Credits: 3*

HOSP 2244 - Meetings, Conventions & Special Events Management *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

OR CSA 2112 - Database Applications *Credits: 3*

OR BOT 2200 - Digital Workplace Technologies *Credits: 3*

Total Credits: 21

Culinary & Hospitality: Professional Baker Certificate (PBKC-CC)

The Professional Baker Certificate program is designed to further education and training for those already in the field, as well as accommodate people entering careers in the Culinary Arts. Academic credits from this program may be transferred to associate degree programs in Culinary Arts and Foodservice Management.

Along with classroom and laboratory study, students will participate in an individually planned, 150 or 300-hour cooperative work experience course, earning credit toward graduation while employed. Graduates may transfer credits and earn baccalaureate degrees at various institutions of higher learning. Students may enroll in this program full or part-time, day or evening.

Learning Outcomes:

Upon successful completion of all Professional Baker certificate program requirements, graduates will

- **Professionalism:** Summarize basic principles and concepts of the hospitality industry with its varied career tracks, and apply personal skills, including but not limited to adherence to accepted professional standards and codes of conduct.
- **Teamwork:** Recognize the importance of working groups, mutual responsibility, and diversity of thought to effective outcomes.
- **Culinary Skills:** Analyze theory and techniques skills of food preparation and presentation.
- **Safety & Sanitation:** Safely operate commercial kitchen equipment in an efficient manner and apply safety and environmental sanitation standards of foodservice operations to obtain a ServSafe® certificate.
- **Technology:** Apply technology to food service and hospitality operations.
- **Baking Skills:** Develop knowledge and skills in basic baking and pastry arts, including cake decorating and artisan breads.
- **Classical Techniques:** Learn the basics of classical techniques in culinary and pastry arts and how they apply to current trends.
- **Cooperative Experience:** Transfer knowledge and apply skills in a production environment to obtain experience in the food service industry.

Industry Certifications Offered within program:

ServSafe® Food Protection Manager, and TIPS® Training Industry Certifications prepared for by program: Certified Fundamentals Cook®, Certified Culinarian®.

Required Courses

HOSP 1103 - Principles of Baking I *Credits: 3*

HOSP 1107 - Icing Artistry I *Credits: 3*

HOSP 1109 - Food Safety Certification *Credits: 1*

HOSP 2207 - Icing Artistry II *Credits: 3*

OR HOSP 1101 - Principles of Food Preparation *Credits: 3*

HOSP 1215 - Principles of Baking II *Credits: 3*

HOSP 2216 - Artisan Bread *Credits: 3*

HOSP 2225 - Principles of Baking III: Chocolates and Confections *Credits: 3*

HOSP 2294 - Cooperative Education/Work Experience *Credits: 3*

Total Credits: 22

Culinary & Hospitality: Restaurant Management, AS (RSMG-AS)

****A recommendation to discontinue this program is pending review by the Board of Regents. Students interested in this discipline are encouraged to enroll in Culinary & Hospitality: Foodservice Management, AS (FODS-AS).****

The Associate in Science degree in Restaurant and Foodservice Management is designed for those interested in careers in restaurant management and other businesses that provide food and beverage to customers. This hospitality/business degree in restaurant/foodservice management teaches the technology used in the industry, menu costing and cost control, marketing, how to wow the customer and create customer loyalty, writing food descriptions and other media related outreach, legal, accounting and human resources (hiring, firing of staff, training and evaluation of employees) aspects of the business, basic food preparation, how to be an entrepreneur and own their own restaurant, food truck, catering or other food related business. Internships provide students with industry experience and learn how to work effectively as a team member in the hospitality industry.

Learning Outcomes:

- Describe and apply marketing, sales, customer relations, legal, accounting and human resource techniques used in the restaurant and food service industries.
- Accurately perform mathematical computations and interpret the results with regard to food and beverage cost controls and purchasing.
- Demonstrate ability to write and present about food, such as writing food and concept descriptions, menus, blogs, press releases and media outreach documents, as well as presenting to staff and external constituents.
- Identify and explain the entrepreneurial components of owning a restaurant, food truck and other food focused businesses including site location, funding, concept development, and preparation of a business plan.
- Demonstrate knowledge of basic cooking techniques and use of typical industrial kitchen equipment.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1001 - Quantitative Literacy *Credits: 3* (or higher - college level)

PHIL 1101 - Ethics *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

PSY 1011 - General Psychology I *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

OR SOC 2001 - Contemporary Social Issues *Credits: 3*

OR PSY 2040 - Social Psychology *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (42 credits)

HOSP 1100 - Introduction to the Hospitality Industry *Credits: 3*

HOSP 1101 - Principles of Food Preparation *Credits: 3*

HOSP 1109 - Food Safety Certification *Credits: 1*

HOSP 1212 - Advanced Food Preparation *Credits: 4*

HOSP 1304 - Hospitality Customer Relations *Credits: 3*

HOSP 1117 - Beverage Management *Credits: 3*

HOSP 2111 - Food & Beverage Cost Control *Credits: 3*

HOSP 2301 - Hospitality Law *Credits: 3*

HOSP 2302 - Restaurant Management *Credits: 3*

HOSP 2237 - Hospitality Marketing *Credits: 3*

HOSP 2409 - Food Writing *Credits: 3*

HOSP 2095 - Hospitality Management Internship/Work Experience I *Credits: 3*

HOSP 2195 - Hospitality Management Internship/Work Experience II *Credits: 1*

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

Total Credits: 63-65

Cyber and Homeland Security Certificate (CYHM-CC)

The Cyber and Homeland Security certificate will introduce students to the field of cybersecurity, homeland security and computer crime deterrence. Courses are designed to offer exposure to computing and criminal justice allowing students to begin exploring positions in industry or advancement of career. This certificate will also provide a foundation for continuation in two-year associate degree in Cyber and Homeland Security Certificate or Computer Information Systems.

Learning Outcomes:

- Explain the landscape, key terms, challenges, and concepts related to the many layers of Homeland and cybersecurity.
- Explain fundamental architectures of networks and demonstrate an understanding of network security.
- Demonstrate an understanding of the legal and ethical issues and concepts associated with cybersecurity responsibilities.
- Apply counter measures that would secure network systems against threats.
- Identify and discuss career opportunities and the necessary skills that will increase the likelihood of success in the field of cyber and homeland security.
- Preparedness to advance one's career, or move on to more advanced study in the same or related fields such as MIS or CIS.

Required Courses

CIS 1001 - Introduction to Computers *Credits: 3*

OR CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CYS 2111 - Network Security *Credits: 3*

CJS 2240 - Computer Crimes *Credits: 3*

OR CJS 2350 - Information Warfare and Security *Credits: 3*

OR CJS 2340 - Computer Security and Data Protection *Credits: 3*

Directed Elective - Choose 1 course

CJS 2240 - Computer Crimes *Credits: 3*

CJS 2350 - Information Warfare and Security *Credits: 3*

CJS 2340 - Computer Security and Data Protection *Credits: 3*

CYS 1101 - Practices in Security Management *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

Total Credits: 18

Cyber and Homeland Security, AS (CYHM-AS)

The program provides preparation for students to obtain entry-level positions in the field of cybersecurity, homeland security and computer crime deterrence. The program 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 program combines elements of both Computer Information Systems and Criminal Justice course work to offer students an understanding the investigative nature of cybersecurity in the criminal justice realm as well as gaining technical skills in computer science, networking, and programming.

Learning Outcomes:

- Explain the landscape, key terms, challenges, and concepts related to the many layers of cybersecurity.
- Explain fundamental architectures of networks (networks build on each other) and demonstrate an understanding of network security.
- Demonstrate an understanding of the legal and ethical issues and concepts associated with cybersecurity responsibilities.
- Effectively communicate technical information and approaches for incident analysis and response verbally, in writing, and in presentations.
- Determine if and when criminal charges will be initiated for different security breaches. Analyze a range of security breaches and identify if/when criminal charges are appropriate.
- Apply counter measures that would secure network systems against threats.
- 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.

Students pursuing this degree will take computer-related, as well as criminal justice courses. Topics may include:

- cyber-crime law and investigations
- cybersecurity
- introduction to criminal justice
- threat of terrorism and crime
- computer and network security
- computer science
- networking
- cyber law and ethics
- information systems design
- applied statistics
- additional information technology topics
-

This degree will begin to prepare students for common certification exams such as:

- CompTIA Security+
- CompTIA Network+
- CompTIA Project+
- CompTIA A+

General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

CIS 1001 - Introduction to Computers *Credits: 3*

OR CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CJS 1010 - Introduction to Criminal Justice *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CYS 2111 - Network Security *Credits: 3*

CJS 2240 - Computer Crimes *Credits: 3*

OR CJS 2350 - Information Warfare and Security *Credits: 3*

OR CJS 2340 - Computer Security and Data Protection *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

CIS 1104 - Introduction to Operating Systems *Credits: 3*

Designated Electives

Pick 18 credits from list:

- CIS 2144 - Systems Analysis and Design *Credits: 3*
- CJS 2110 - Criminal Law I *Credits: 3*
- CJS 2220 - Computer Investigation Techniques *Credits: 3*
- CJS 2240 - Computer Crimes *Credits: 3*
- CJS 2340 - Computer Security and Data Protection *Credits: 3*
- CJS 2350 - Information Warfare and Security *Credits: 3*
- CST 1121 - Networking I *Credits: 3*
- CST 1141 - Linux System Administration *Credits: 4*
- CST 2122 - Networking II *Credits: 3*
- CST 2123 - Networking III *Credits: 3*
- CST 2161 - Virtualization & Cloud Computing *Credits: 3*
- CYS 1101 - Practices in Security Management *Credits: 3*
- CYS 2131 - Computer Forensics & Network Intrusions *Credits: 3*
- CYS 2151 - Ethical Hacking & Pen Testing I *Credits: 3*
- CYS 2152 - Ethical Hacking & Pen Testing II *Credits: 3*
- CST 2124 - Voice over IP Networking *Credits: 3*
- Elective CPL - Computer Programming Language Course *Credits: 3-4*
- CIS 1211 - Database Design I *Credits: 3*
- **OR** CSC 2235 - Introduction to Database Design *Credits: 3*

Total Credits: 60-63

Cybersecurity Essentials Certificate (CYSC-CC-ESN)

The Cybersecurity Essentials Certificate is designed to take a student with little or no information technology experience and prepare them for entry-level work in Cybersecurity. Curriculum in this program is based on topic areas, learning objectives, and goals for educating the workforce prescribed by the cybersecurity community, including the National Institute for Standards and Technology (NIST) and the National Initiative for Cybersecurity Education (NICE).

Learning Outcomes:

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

- Design, build and test a Python program.
- Identify the security controls required by organization to protect the Confidentiality, Integrity, and Availability (CIA) of data and systems.
- Evaluate computer forensic methods.
- Implement major network authentication schemes.
- Use hacking software tools to identify known vulnerabilities associated with a computer system, and computer network.
- Install network security appliances and software such as firewall and network intrusion systems.

This certificate will begin to prepare students for common security certification exams such as:

- CompTIA Network+
- CompTIA Linux+
- CompTIA Security+
- Computer Hacking Forensic Investigator (CHFI)
- Penetration Testing and Ethical Hacking (CEH)
- ISC2's Systems Security Certified Practitioner (SSCP)

Required Courses

CSC 1203 - Python Fundamentals *Credits: 3*
CST 1121 - Networking I *Credits: 3*
CST 2122 - Networking II *Credits: 3*
CST 1141 - Linux System Administration *Credits: 4*
CYS 2111 - Network Security *Credits: 3*
CYS 2131 - Computer Forensics & Network Intrusions *Credits: 3*
CYS 2151 - Ethical Hacking & Pen Testing I *Credits: 3*

Total Credits: 22

Cybersecurity Operations Certificate (CYSC-CC-OPS)

The Cybersecurity Operations Certificate is designed to take a student with little or no information technology experience and prepare them for entry-level work in Cybersecurity. It builds on the Cybersecurity Essentials Certificate with an additional focus on cloud computing, risk management and advanced penetration testing. Curriculum in this program is based on topic areas, learning objectives, and goals for educating the workforce prescribed by the cybersecurity community, including the National Institute for Standards and Technology (NIST) and the National Initiative for Cybersecurity Education (NICE).

Learning Outcomes:

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

- Design, build and test a Python program.
- Identify the security controls required by organization to protect the Confidentiality, Integrity, and Availability (CIA) of data and systems.
- Evaluate computer forensic methods.
- Implement major network authentication schemes.
- Use hacking software tools to identify known vulnerabilities associated with a computer system, and computer network.
- Install network security appliances and software such as firewall and network intrusion systems.
- Develop risk mitigation strategies, security policies, and procedures.
- Implement virtualization technologies.

This certificate will begin to prepare students for common security certification exams such as:

- CompTIA Linux+
- CompTIA Security+
- Computer Hacking Forensic Investigator (CHFI)
- Penetration Testing and Ethical Hacking (CEH)
- ISC2's Systems Security Certified Practitioner (SSCP)

Required Courses

CSC 1203 - Python Fundamentals *Credits: 3*
CST 1121 - Networking I *Credits: 3*
CST 2122 - Networking II *Credits: 3*
CST 1141 - Linux System Administration *Credits: 4*
CST 2161 - Virtualization & Cloud Computing *Credits: 3*
CYS 2111 - Network Security *Credits: 3*
CYS 2131 - Computer Forensics & Network Intrusions *Credits: 3*
CYS 2151 - Ethical Hacking & Pen Testing I *Credits: 3*
CYS 2152 - Ethical Hacking & Pen Testing II *Credits: 3*
CYS 2121 - Information Assurance & Risk Management *Credits: 3*

Total Credits: 31

Cybersecurity: Computer Science, AS (CYCM-AS)

The Cybersecurity Associate Degree is designed to take a student with little or no information technology experience and prepare them for entry-level work in Cybersecurity. Curriculum in this program is based on topic areas, learning objectives, and goals for educating the workforce prescribed by the cybersecurity community, including the National Institute for Standards and Technology (NIST) and the National Initiative for Cybersecurity Education (NICE).

Additional concentrations in this discipline include:

- Cybersecurity: Cybersecurity, AS (CYSC-AS)
- Cybersecurity: Networking, AS (CYNT-AS)

This degree is designed for immediate workforce placement. Students may also choose to transfer to a bachelor's degree program at a four-year university.

Learning Outcomes:

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

- Design, build and test a Python program.
- Design and build local area networks (LAN).
- Identify the security controls required by the organization to protect the Confidentiality, Integrity, and Availability (CIA) of data and systems.
- Evaluate computer crimes and forensic methods.
- Implement major network authentication schemes.
- Use hacking software tools to identify known vulnerabilities associated with a computer system, and computer network.
- Develop risk mitigation strategies, security policies, and procedures.
- Install network security appliances and software such as firewall and network intrusion systems.

This degree will begin to prepare students for common security certification exams such as:

- CompTIA Linux+
- CompTIA Security+
- Computer Hacking Forensic Investigator (CHFI)
- Penetration Testing and Ethical Hacking (CEH)
- ISC2's Systems Security Certified Practitioner (SSCP)

Cybersecurity General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher (MATH 1200 recommended) *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Recommended: PHYS 1100 Introductory Physics

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Cybersecurity Program Core (28 credits)

CSC 1203 - Python Fundamentals *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CST 2122 - Networking II *Credits: 3*

CST 1141 - Linux System Administration *Credits: 4*

CST 2161 - Virtualization & Cloud Computing *Credits: 3*

CYS 2111 - Network Security *Credits: 3*

CYS 2121 - Information Assurance & Risk Management *Credits: 3*

CYS 2131 - Computer Forensics & Network Intrusions *Credits: 3*

CYS 2151 - Ethical Hacking & Pen Testing I *Credits: 3*

Specialization Courses (12-13 credits)

CSC 1211 - Java I *Credits: 3*

CSC 2212 - Java II *Credits: 3*

CSC 2217 - Digital Design *Credits: 4*

Elective - Any EGR, CSC, or CST course *Credits: 3-4*

Total Credits: 61-64

Cybersecurity: Cybersecurity, AS (CYSC-AS)

The Cybersecurity Associate Degree is designed to take a student with little or no information technology experience and prepare them for entry-level work in Cybersecurity. Curriculum in this program is based on topic areas, learning objectives, and goals for educating the workforce prescribed by the cybersecurity community, including the National Institute for Standards and Technology (NIST) and the National Initiative for Cybersecurity Education (NICE).

Students will choose between 3 options:

- Cybersecurity Concentration
- Cybersecurity: Computer Science, AS (CYCM-AS)
- Cybersecurity: Networking, AS (CYNT-AS)

This degree is designed for immediate workforce placement. Students may also choose to transfer to a bachelor's degree program at a four-year university.

Learning Outcomes:

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

- Design, build and test a Python program.
- Design and build local area networks (LAN).
- Identify the security controls required by organization to protect the Confidentiality, Integrity, and Availability (CIA) of data and systems.
- Evaluate computer crimes and forensic methods.
- Implement major network authentication schemes.
- Use hacking software tools to identify known vulnerabilities associated with a computer system, and computer network.
- Develop risk mitigation strategies, security policies, and procedures.
- Install network security appliances and software such as firewall and network intrusion systems.

This degree will begin to prepare students for common security certification exams such as:

- CompTIA Linux+
- CompTIA Security+
- Computer Hacking Forensic Investigator (CHFI)
- Penetration Testing and Ethical Hacking (CEH)
- ISC2's Systems Security Certified Practitioner (SSCP)

Cybersecurity General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher (MATH 1200 recommended) *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Recommended: PHYS 1100 Introductory Physics

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Cybersecurity Program Core (28 credits)

CSC 1203 - Python Fundamentals *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CST 2122 - Networking II *Credits: 3*

CST 1141 - Linux System Administration *Credits: 4*

CST 2161 - Virtualization & Cloud Computing *Credits: 3*

CYS 2111 - Network Security *Credits: 3*

CYS 2121 - Information Assurance & Risk Management *Credits: 3*

CYS 2131 - Computer Forensics & Network Intrusions *Credits: 3*

CYS 2151 - Ethical Hacking & Pen Testing I *Credits: 3*

Specialization Courses (12 credits)

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CYS 2152 - Ethical Hacking & Pen Testing II *Credits: 3*

CYS 2141 - Cyber Crimes *Credits: 3*

CYS 2161 - Cryptography Fundamentals *Credits: 3*

Total Credits: 61-64

Cybersecurity: Networking, AS (CYNT-AS)

The Cybersecurity Associate Degree is designed to take a student with little or no information technology experience and prepare them for entry-level work in Cybersecurity. Curriculum in this program is based on topic areas, learning objectives, and goals for educating the workforce prescribed by the cybersecurity community, including the National Institute for Standards and Technology (NIST) and the National Initiative for Cybersecurity Education (NICE).

Students will choose between 3 options:

- Cybersecurity: Cybersecurity, AS (CYSC-AS)
- Cybersecurity: Computer Science, AS (CYCM-AS)
- Cybersecurity: Networking (CYNT-AS)

This degree is designed for immediate workforce placement. Students may also choose to transfer to a bachelor's degree program at a four-year university.

Learning Outcomes:

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

- Design, build and test a Python program.
- Design and build local area networks (LAN).
- Identify the security controls required by the organization to protect the Confidentiality, Integrity, and Availability (CIA) of data and systems.
- Evaluate computer crimes and forensic methods.
- Implement major network authentication schemes.
- Use hacking software tools to identify known vulnerabilities associated with a computer system, and computer network.
- Develop risk mitigation strategies, security policies, and procedures.
- Install network security appliances and software such as firewall and network intrusion systems.

This degree will begin to prepare students for common security certification exams such as:

- CompTIA Linux+
- CompTIA Security+
- Computer Hacking Forensic Investigator (CHFI)
- Penetration Testing and Ethical Hacking (CEH)
- ISC2's Systems Security Certified Practitioner (SSCP)

Cybersecurity General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher (MATH 1200 recommended) *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Recommended: PHYS 1100 Introductory Physics

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Cybersecurity Program Core (28 credits)

CSC 1203 - Python Fundamentals *Credits: 3*

CST 1121 - Networking I *Credits: 3*

CST 2122 - Networking II *Credits: 3*

CST 1141 - Linux System Administration *Credits: 4*

CST 2161 - Virtualization & Cloud Computing *Credits: 3*

CYS 2111 - Network Security *Credits: 3*

CYS 2121 - Information Assurance & Risk Management *Credits: 3*

CYS 2131 - Computer Forensics & Network Intrusions *Credits: 3*

CYS 2151 - Ethical Hacking & Pen Testing I *Credits: 3*

Specialization Courses (11 credits)

CST 1111 - Computer Hardware *Credits: 4*

CST 2123 - Networking III *Credits: 3*

CST 2142 - Windows Server Administration *Credits: 4*

Total Credits: 60-62

Dance Certificate (DANC-CC)

The field of dance education is taking an exciting step forward in Connecticut's public schools. An increasing number of school systems have been including dance and movement education in their grades K - 12 arts curriculum. To support this activity, and to comply with the requirements of federal education legislation known as "No Child Left Behind" (NCLB), the Connecticut State Department of Education worked for several years with educators and the dance community to develop guidelines for teacher certification in dance, thereby ensuring that well-prepared educators deliver in-school dance programs.

Per federal law, all public-school teachers in core subjects are required to be "Highly Qualified," i.e., certified in the subject area they teach. Certification is literally a "license" to be a public-school teacher within a state. Because the NCLB law includes the arts among the core subjects, dance teachers will be required to be certified in dance, just as math teachers must be certified in math, science teachers certified in science, and art teachers in art. By implementing dance certification, Connecticut joins the vast majority of other states that offer teacher certification in dance. In order to be qualified for public school teacher certification, an applicant must have successfully completed coursework in each of the following: Applied study in Ballet; Two applied courses in Modern Dance; applied study in a third folkloric dance form (e.g., Ballroom, Tap, Jazz, or African); choreographic principles; dance history and cultures; applied Kinesiology/Anatomy; Nutrition in a wellness or fitness context; and Dance Education methods/curriculum. Students completing this Dance Certificate will have met each of these requirements.

This certificate in Dance allows students the opportunity to explore dance through seminar, lecture, field work (attending live performances), and lab (dance exercises) participation. The Dance certificate enhances technique, broadens one's repertoire, builds choreographic options and production skills, expands artistic training, and provides a strong foundation in all aspects of dance. This program is tailored for individuals who seek employment or those presently working in studio, theatre, education, non-profit, or community service environments, students wanting to broaden their foundation of dance foundation, and for individuals working in the arts or entertainment industries. Graduates are not only well prepared for employment, but confident in his/her participation on the arts especially dance. It is recommended that students entering this program of study should have a familiarity with dance and the basic foundations of dance.

Note: To be qualified for public school teacher certification, an applicant must hold a college degree from an accredited institution. A Formal Pathways to Dance Certification K-12 has been designed for the public-school teacher wishing to obtain the State of Connecticut's certification. This Dance certificate may be used towards that K- 12 certification.

Learning Outcomes:

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

- Demonstrate mastery skills and techniques necessary for studio and/or theatre dance.
- Execute a comprehensive historical repertoire of various dance genres using appropriate movement vocabulary.
- Critically assess and demonstrate dance as a means of communication and reflection of one's society.
- Demonstrate critical thinking and reflection when assessing the movement capabilities of collaborative performers and appraise and adjust their teaching and performing techniques accordingly.
- Execute production skills from the choreographic process to the performance.
- Identify resources for the dance instructor and performer, including texts and music.
- Apply French movement terminology when discussing dance.

Required Courses

DANC 1001 - History and Appreciation of World Dance *Credits: 3*

DANC 1002 - Ballet: Renaissance to Romantic *Credits: 3*

DANC 1011 - Jazz I: Afro-American/Caribbean *Credits: 3*

OR DANC 1111 - Jazz II: Broadway and Film *Credits: 3*

OR Complete all 1-credit classes below for a total of 3 credits:

DANC 1009 - Ballroom Dance

DANC 1010 - Tap

DANC 1031 - Contemporary African Dance

DANC 1013 - Modern Dance: Early 20th Cent-1940s *Credits: 3*

DANC 2002 - Ballet II: Classical to Contemporary *Credits: 3*

DANC 2013 - Modern Dance II: Second Generation America *Credits: 3*

DANC 1075 - Kinesiology for Dancers *Credits: 3*

DANC 1018 - Dance Pedagogy for Young Children *Credits: 3*

HPE 1000 - Introduction to Wellness *Credits: 3*

OR EXSC 2010 - Sports Nutrition *Credits: 3*

Total Credits: 27

Dance, AA (DANC-AA)

Students enrolled in this degree program are provided a broad base of cultural and historical knowledge about dance and dance technique, pedagogy, and repertoire in the diverse genres of dance. The creative process is fostered through inclusion and learning opportunities in production skills, the art of choreography, and performance. This foundation prepares students to further their study of, teach, choreograph, and/or perform dance. Students must be physically capable of participating in studio courses. Students explore dance through seminar, lecture, fieldwork (attending live performances), and participation in lab (dance exercises).

Learning Outcomes:

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

- Demonstrate and execute warm-up exercises specific to all dance forms (ballet, modern, ethnic, jazz).
- Execute a desirable physical activity, preparation, and training for the arts as a dancer, actor, or/and musician intellectually.
- Execute a variety of choreographic styles to enhance and broaden movement.
- Use choreographic vocabulary appropriately, utilizing time, space and energy.
- Demonstrate kinesthetic awareness, mental and physical coordination, rhythmic sensitivity, and musicality.
- Identify dancers and choreographers, describe their contributions to the field of dance, and discuss their processes in creating dance.
- Choreograph and perform movement and demonstrate performance skills of concentration, projection, characterization, expression and ensemble work.
- Demonstrate the ability to schedule and conduct rehearsals, and produce a performance that includes staging, lighting, costuming, decor, and publicity.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

MUS 1001 - Music History & Appreciation I *Credits: 3*

OR THR 1101 - Introduction to Theater *Credits: 3*

OR THR 1110 - Acting I *Credits: 3*

OR MUS 1004 - World Music *Credits: 3*

OR DANC 1115 - Dance as Cultural Expression *Credits: 3*

BIO 1011 - Introduction to Nutrition *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

OR ANTH 1001 - Introduction to Anthropology *Credits: 3*

OR SOC 1001 - Principles of Sociology *Credits: 3*

COMM 1000 - Introduction to Communication *Credits: 3*

OR ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

THR 1102 - Theater History *Credits: 3*

OR ANTH 1005 - Introduction to Cultural Anthropology *Credits: 3*

OR HLTH 1051 - Health and Wellness Promotion *Credits: 3*

DANC 1001 - History and Appreciation of World Dance *Credits: 3*

DANC 1002 - Ballet: Renaissance to Romantic *Credits: 3*

DANC 1013 - Modern Dance: Early 20th Cent-1940s *Credits: 3*

DANC 1011 - Jazz I: Afro-American/Caribbean *Credits: 3*

DANC 2002 - Ballet II: Classical to Contemporary *Credits: 3*

DANC 2013 - Modern Dance II: Second Generation America *Credits: 3*

DANC 2021 - Dance Repertory/Ensemble I *Credits: 3*

DANC 1111 - Jazz II: Broadway and Film *Credits: 3*

DANC 2022 - Choreographic Principles/Ensemble I *Credits: 3*

DANC 1018 - Dance Pedagogy for Young Children *Credits: 3*

DANC 1075 - Kinesiology for Dancers *Credits: 3*

DANC 2121 - Dance Repertory/Ensemble II *Credits: 3*

OR DANC 2122 - Choreographic Principles/Ensemble II *Credits: 3*

OR 3 total credits from among the 1-credit course options *Credits: 3*

Total Credits: 60-61

Data Analytics Certificate (DTAN-CC)

The goal of the program curriculum is to provide students with an introduction to the industry programming standards of Python and R and knowledge of important fundamentals in Statistics and the Data Science Life Cycle. The certificate is designed as a four 4-credit course program that enables eager and interested students to obtain skills useful for the analysis of data in the workplace. Students take 2 courses in the fall semester and 2 courses in the spring semester to complete the certificate in one year.

Learning Outcomes:

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

- Extract data and solve data related problems using programming language.
- Produce and interpret data visualizations, numerical summaries, and confidence intervals to describe and explore data.
- Formulate and test statistical claims using relevant techniques and technologies.
- Recognize and investigate problems using data and apply the appropriate methods for resolution.
- Demonstrate the ability to prepare data for analysis.
- Describe ethical issues related to data privacy and sensitivity.
- Evaluate the consistency and completeness of data.

Required Courses

MATH 1201 - Statistics I with Computer Applications *Credits: 4*

CSC 1201 - Introduction to Programming *Credits: 4*

DTS 2203 - Elements of Data Science *Credits: 4*

DTS 2274 - Data Visualization *Credits: 4*

Total Credits: 16

Deaf Studies Certificate (DFSD-CC)

The Deaf Studies Certificate is designed for those students whose goal is to work with Deaf people in various entry level jobs. This one-year program provides students with advanced American Sign Language (ASL) skills and an in- depth understanding of the Deaf Community focusing on a bilingual-bicultural approach. Students will learn the foundations of ASL in the classroom. However, a key component of developing proficiency in ASL is frequent interaction with Deaf ASL signers. Therefore, as part of their course requirements, students are required to interact with signing Deaf people at various events both virtual and in person.

Learning Outcomes:

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

- Communicate at an advanced level using American Sign Language.
- Demonstrate an in-depth understanding of and sensitivity to American Deaf culture.
- Describe the major characteristics of ASL literature.
- Understand the linguistic aspects of American Sign Language.
- Educate others with information and available resources for people who are Deaf and/or Hard of Hearing.

Career Opportunities:

- Teacher's aide
- Residential program counselor
- Job coach
- Communication specialist
- Deaf community advocate
- Paraprofessional with faculty who are Deaf

Required Courses

ASL 1001 - American Sign Language I *Credits: 3*
ASL 1002 - American Sign Language II *Credits: 3*
ASL 2001 - American Sign Language III *Credits: 3*
ASL 2002 - American Sign Language IV *Credits: 3*
ASL 2005 - Linguistics of American Sign Language *Credits: 3*
DSC 1001 - Visual Gestural Communication *Credits: 3*
DSC 1012 - Deaf Communities: Facts and Perspectives *Credits: 3*
DSC 2095 - Field Experience in Deaf Studies *Credits: 3*

Total Credits: 24

Dental Assistant Certificate (DENT-CC-MA)

The Manchester Community College program in Dental Assistant is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611-2678. The Commission's web address is: <http://www.ada.org/en/coda>.

Program design prepares students for a career as a dental assistant through the combination of a science and clinically based curriculum. Dental assistant clinical and laboratory sessions are taught to competency and designed to adhere to the CODA (Commission of Dental Accreditation) Standards and the mandates in the *Connecticut Dental Practice Act*. Dental assistant students acquire the skills and knowledge necessary to become a Certified Dental Assistant (CDA) as integral members of a dental health team. This full-time program can be completed in 10 months.

Learning Outcomes:

Upon successful completion of all Dental Assistant Certificate Program requirements, graduates will:

- Demonstrate acquired knowledge and skills necessary to obtain an entry level position as a dental assistant.
- Exhibit the integrity, ethics, and professionalism that are necessary to ensure the delivery of quality dental care to a diverse population.
- Demonstrate professionalism and effective communication.
- Complete all three components of the Dental Assisting National Board Examination to earn the national distinction of Certified Dental Assistant (CDA).
- Explore current dental assistant employment opportunities.
- Be encouraged to stay current in dental procedures, skills, and technology through active participation in professional associations and continued education.

The program relies on a selective admission process which uses specific admissions criteria. To be eligible for this program, the following prerequisites must be met, eligibility for ENG 1010 and MATH 1000 or higher, and attendance at a dental assistant information session held at the college. Due to extensive academic coverage of patient care and human relations, admission criteria require that the students should meet eligibility or the equivalent for PSY 1011 and COMM 1301, however, it is preferable to have these courses completed by the program start date. Students must have BIO 1111 completed; however, this course can be in progress during the fall or spring of the application year.

Students have the option of taking the prerequisite courses at any of the Connecticut State Community College campuses.

Dental Assistant Program applicants are informed that there is an increased risk for the occurrence of occupational bloodborne exposure for healthcare professionals who treat patients in hospitals, clinics, and private practices. Applicants are provided access to the Occupational Safety and Health Administration's (OSHA), *Bloodborne Pathogens Standard* with the requirements to minimize risk of exposure in Title 29 of the Code of Federal Regulations (CFR) 1910.1030. <https://www.osha.gov/SLTC/bloodborne-pathogens/index.html>.

At Connecticut State Community College Manchester campus, students practice clinical procedures in an on-site, state-of-the-art, dental office setting that includes three treatment rooms complete with digital x-ray, electronic patient records and an instrument processing area. Courses include the study of dental anatomy dental, radiography, infection control, chairside assisting, dental materials, oral health promotion, and practice management. In addition, students complete a minimum of 300 hours, at a dental educational clinical site and at private dental practices.

Due to standards set by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), students are advised that the healthcare facilities to which they are assigned for clinical rotations may require that they submit to a criminal background check before beginning their clinical experiences. Connecticut State Community College Manchester campus cannot be responsible for finding an alternate clinical placement for a student who fails to pass the background check. Students are advised to meet with the Dental Assistant Program Director to discuss degree completion requirements. A physical examination and current immunizations are required of all students prior to beginning clinical rotations. Students are responsible for parking fees; uniforms; clinical supplies and miscellaneous expenses.

The program prepares students for the Dental Assisting National Board (DANB) examinations. Graduates will be eligible to take the Radiation Health and Safety (RHS), Infection Control (ICE), and General Chairside (GC) examinations. Upon successful completion of the three examinations, students will be awarded the credentials of "Certified Dental Assistants." (CDA.).

Required Courses

PSY 1011 - General Psychology I *Credits: 3*
BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
COMM 1301 - Public Speaking *Credits: 3*
DNAS 1023 - Chairside Dental Assisting *Credits: 4*
DNAS 1031 - Oral Anatomy and Pathophysiology *Credits: 3*
DNAS 1032 - Dental Materials *Credits: 4*
DNAS 1033 - Dental Radiography *Credits: 4*
DNAS 1034 - Oral Health Promotion *Credits: 1*
DNAS 1035 - Dental Practice Management *Credits: 3*
DNAS 1036 - Infection Control in Dentistry *Credits: 1*
DNAS 1043 - Advanced Dental Radiology *Credits: 2*
DNAS 2095 - Dental Assistant Clinical Practicum I *Credits: 2*
DNAS 2195 - Dental Assistant Practicum II *Credits: 1*

Total Credits: 35

Dental Assisting Certificate (DENT-CC-TX)

The Tunxis Community College program in Dental Assisting is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611-2678. The Commission's web address is:

<http://www.ada.org/en/coda>.

Students will learn chairside dental assisting and related office and laboratory procedures allowed by State law under the direction and supervision of the dentist.

Learning Outcomes:

Upon successful completion of all Dental Assisting Certificate Program requirements, graduates will:

- Demonstrate acquired knowledge and skills necessary to obtain an entry level position as a dental assistant.
- Exhibit the integrity, ethics, and professionalism that are necessary to ensure the delivery of quality dental care to a diverse population
- Demonstrate professionalism and effective communication.
- Complete all three components of the Dental Assisting National Board Examination to earn the national distinction of Certified Dental Assistant (CDA).
- Explore current dental assisting employment opportunities.
- Be encouraged to stay current in dental procedures, skills, and technology through active participation in professional associations and continued education.

Students' complete requirements at The University of Connecticut School of Dental Medicine, community health centers/clinics, or private dental practices, which often lead to employment opportunities. The program prepares the students to be qualified and able to take the Dental Assisting National Board examinations to become Certified Dental Assistants.

- Be prepared for the Radiation Health and Safety and the Infection Control Exam components of the Dental Assisting National Board Examination to be qualified for Dental Assisting employment

Waiver of Licensure Guarantee

Upon successful completion of the certificate program in Dental Assisting, the graduate is eligible to take the General Chairside Dental Assisting National Board exam to become a Certified Dental Assistant. Students must pass all three components (Infection Control Examination; Radiation Health and Safety Examination; and the General Chairside Examination) of the Dental Assisting National Board to become a Certified Dental Assistant.

Dental assistants in Connecticut must successfully complete the Dental Assisting National Board's Infection Control exam or an infection control competency assessment administered by a Commission on Dental Accreditation(CODA) accredited dental education program in Connecticut. Dental assistants in Connecticut must also successfully complete the Dental Assisting National Board's Radiation Health and Safety exam to legally expose patients for radiographic imaging.

Students/Candidates who live/work or plan to live/work outside of Connecticut should verify the licensing/credentialing required for dental assistants in that state to ensure that credentialing will be accepted. We suggest that you research the Dental Assisting National Board's website listings that provide requirements for each state. The Dental Assisting National Board webpage link is provided below for your convenience.

<https://www.danb.org/Home/Meet%20State%20Requirements/State%20Specific%20Information.aspx>

Special Admission Requirements:

Dental Assisting Certificate Program Application deadline is June 1st (prior to the Fall semester for which you wish to be considered for the program). It is the student's responsibility to make sure that his/her file is complete to be considered for admission into the Program.

As a Selective Admissions Program, it is strongly suggested that candidates submit their application material early for review and consideration for initial Program admission. At a minimum, candidates should submit their application material at least 3 weeks in advance of the April 15th deadline to ensure timely receipt. After June 1st, if additional seats remain available, qualified applicants may be considered as alternate candidates on a rolling basis. A maximum of 24 applicants will be offered a position in the class.

All students who have not completed the equivalent of English Composition (ENG 1010) must place into the ENG 1010 course level to have their program applications considered.

A GPA of 2.0 or better is required for entry into the program.

The Tunxis Community College Dental Assisting Program is approved as an Eligible Training Provider (ETP) through the Connecticut Department of Labor under the Workforce Innovation and Opportunity Act (WIOA).

Dental Assisting Application Process for Admission

Attendance at a Dental Assisting information session is required. For information on upcoming information sessions and to reserve a seat, visit the Dental Assisting website: <https://www.tunxis.edu/offices-departments/allied-health/dental-assisting> / Information sessions are held throughout the year. However, it is recommended that students attend an information session in the fall prior to the June 1st deadline to learn about the Tunxis Dental Assisting program, application process and requirements, and careers in dental assisting. Students must "sign in" at the session to receive credit for attendance. All applicants must submit the following to the Admissions Office:

- Completed Connecticut State Community College Application
- Dental Assisting program application.
- Proof of immunization: Measles, Mumps, Rubella, Varicella (MMRV), Covid
- Proof of high school completion in the form of General Education Development Test (GED), diploma, or transcript.
- If applicable, have your "official" college or university transcripts sent directly from the schools to Tunxis. Transcripts must be official.

Students must have the following abilities: The following additional essential functions are also expected of all students with or without accommodations. Students must be able to fulfill the essential functions of the job without endangering patients or other health care workers. Students with disabilities may be eligible for accommodation.

- proficiency in their use of the English language and must possess effective oral and written skills in order to accurately transmit appropriate information to patients/clients, faculty, colleagues, and other healthcare workers
- gross and fine motor skills sufficient to lift, position, and operate equipment
- interpersonal skills such that they are capable of interacting with individuals, families, and groups from a variety of social, economic, and ethnic backgrounds
- the physical mobility necessary to move from place to place in small spaces as well as full range of motion, manual and finger dexterity
- physical endurance that enables them to stay on task for a prolonged period while sitting, standing, or moving
- a high degree of hand-eye coordination
- auditory ability and other sensory skills must be sufficient to monitor and assess the health needs and diagnose the oral conditions of patients as well as maintain patient safety
- visual acuity and adequate spatial perception
- intact proprioception (the ability to sense pressure/force)
- present a professional appearance, attitude, and performance level

Criminal Background Checks

Some clinical learning sites require students to undergo a background check for felony convictions. Background checks are initiated in the fall semester to be completed prior to the spring semester clinical externship experiences. Students are informed of this requirement during information sessions, program orientation, and handbook policy. The paperwork is initiated during the DNAS 1042 Research Seminar for the Dental Assistant.

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 the program. The ability to obtain a license/credentials/certification may be affected due to a felony conviction.

This program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Commission on Recognition of Post-secondary Accreditation and by the United States Department of Education. The Commission on Dental Accreditation may be contacted at 312.440.2719 or at 211 East Chicago Avenue, Chicago, Illinois 60611.

Other Requirements

As a health care professional/student, you are at an increased risk of contracting blood borne infectious diseases. The Program is not responsible for any medical cost associated with you contracting any communicable disease during or prior to your education and/or participation in Tunxis Dental Assisting Program sponsored functions. If you contract a blood borne infectious disease before or during your enrollment, appropriate health experts must be consulted to determine your ability to treat patients.

A GPA of 2.0 or better is required for progression in the program.

Immunizations

In addition to the CT State College Community College immunization requirements, students are required to have additional immunizations (Hepatitis B, Tetanus). Tuberculosis testing is required. Students will receive a packet of the information at the time of acceptance into Tunxis Dental Assisting Program and available in student handbook.

Required Courses

- DNAS 1030 - Dental Materials for the Dental Assistant *Credits: 3*
- DNAS 1040 - Essential Chairside Functions for the Dental Assistant *Credits: 4*
- DNAS 1042 - Research Seminar for the Dental Assistant *Credits: 2*
- DNAS 1044 - Preventative Dentistry for the Dental Assistant *Credits: 3*
- DNAS 1046 - Oral Anatomy for the Dental Assistant *Credits: 3*
- DNAS 1047 - Principles of Radiation for the Dental Assistant *Credits: 3*
- DNAS 1048 - Radiography Theory & Practice for the Dental Assistant *Credits: 3*
- DNAS 1049 - Practice Management, Laws, and Ethics for the Dental Assistant *Credits: 2*
- DNAS 1095 - Dental Assisting Clinical Externship Experience *Credits: 7*
- COMM 1302 - Interpersonal Communication *Credits: 3*
- OR** COMM 1301 - Public Speaking *Credits: 3*

Total Credits: 33

Dental Hygiene, AS (DHYG-AS)

The Tunxis Campus of CT State Community College Dental Hygiene program provides the skills and knowledge necessary to function effectively as an integral member of the dental health team. The program has a 30-year affiliation with University of Connecticut (UConn) School of Dental Medicine. The program utilizes the facilities of the UConn School of Dental Medicine, federal, state and local hospitals, and community health clinics. Graduates of the program are eligible to take the examinations for licensure given by National and Commission on Dental Competency Assessments (CDCA). Graduates who pass both boards are eligible for a Connecticut license. The program is the only state supported dental hygiene program in Connecticut.

The Dental Hygiene program's faculty are highly qualified with a wide range of clinical and community experience.

- Dental classes are held in a state-of-the-art simulated dental clinic and lab facilities.
- Tunxis Campus of CT State Community College is the only publicly supported program in Connecticut to provide a degree in Dental Hygiene.
- Students have many opportunities to participate in community outreach service learning projects on the local, national and international level.

Learning Outcomes:

The Dental Hygiene Program will utilize the following graduation outcomes in assessing students. Tunxis Community College dental hygiene students strive for achievement of these abilities as well as traditional grades.

- **Health Promotion** - develops, implements, and evaluates health promotion strategies directed toward assisting individuals as well as diverse populations achieve oral wellness as a component of overall health and awareness.
- **Process of Care and Evidence-Based Practice** - provides care to all clients without regard to economic, social, cultural, religious, or health status, based upon an individualized human need, evidence-based practice which includes assessment, diagnosis, planning, implementation, education, evaluations, and documentation.
- **Teamwork** - effectively engages in interpersonal activities and teamwork.
- **Technology** - appropriately and effectively uses technology to accomplish assigned tasks.
- **Oral and Written Communication** - delivers oral presentations or written text using appropriate information and/or analysis for the rhetorical situation.
- **Critical Thinking and Problem Solving** - identifies the problem or deficit, formulates an argument, explains, and analyzes relationships clearly, draws reasonable inferences, and conclusions that are logical.
- **Ethical and Professional Standards** - identifies and reflects critically on ethical issues presented in classroom, simulation, community settings, or clinical patient care. Demonstrates professionalism across the curriculum in all aspects of the program.

Career Fields for Dental Hygiene Grads: Dental hygienists may work in a variety of health care settings such as private dental offices, schools, public health clinics, hospitals, managed care organizations, correctional institutions, nursing homes or in a corporate environment. In addition to the clinical role, dental hygienists may also work in an administrative capacity in any of these locations.

Accreditation and Affiliation: The Tunxis Community College program in Dental Hygiene is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611-2678. The Commission's web address is: <http://www.ada.org/en/coda>.

Licensure for Graduates: Dental hygiene students at Tunxis Campus have excellent outcomes on the Dental Hygiene National and Regional Clinical Boards which qualifies them to apply for licensure to practice.

Selective Admissions Criteria:

- Completion of the Admission Test for Dental Hygiene (ATDH). Exam is administered through the American Dental Association. Application and guide may be found at: **Admission Test for Dental Hygiene and Users Guide**. Students should release scores to Tunxis Dental Hygiene Program.
- Applicant must complete CHEM 1110, ENG 1010, MATH 1010 or MATH 1011 or higher, and BIO 2111, with a minimum combined GPA in prerequisite courses of 2.7. A minimum of a "C" must be achieved in each prerequisite course. Pass/Fail is not accepted.

- Applicant must take science courses within 5 years of applying to the program; and all science courses must be 4 credits with on ground laboratory components. Grades will be averaged for any science course repeated within this time frame.
- Applicant must attend a dental hygiene information session.
- Applicant is encouraged to enroll in the Health Careers Pathway.
- Applicant is encouraged to complete general education courses prior to applying to the program.

Application Process for Admission

The applicant must submit ALL of the following by the February 1st Deadline

- All college transcripts
- Two letters of recommendation: professional or academic in nature
- A personal statement: Please provide a comprehensive biographical sketch of no more than 250 words that includes information to assist the Admissions Committee in "getting to know you better." Examples of information that might be included in your biographical sketch include but are not limited to: details regarding dental hygiene procedures you have observed, a description of community service projects in which you have participated, and information concerning your interests, abilities and attitudes that have motivated you to make the commitment required for a career in dental hygiene."
- Proof of a minimum of 4 hours of shadowing a licensed dental hygienist

In addition to the admission requirements prior to the start of the first semester of the program:

- Applicant must complete a General Psychology, a 200 level Anatomy and Physiology II, Microbiology, and DHYG 2005 - Nutrition for Health Professionals with a grade of C or better. A minimum of a "C" must be achieved in each prerequisite course. Pass/Fail is not accepted. Students must complete First Year Experience or obtain a waiver.
- If these courses are in progress at the time of interview, applicant must provide mid-terms grades for evaluation.
- Final acceptance of the applicant is contingent upon successful completion of these courses.
- Consideration is given to the number of college courses successfully completed.

Non-Course Requirements for Dental Hygiene students

Immunizations

In addition to the State College immunization requirements, students are required to be immunized for tetanus, hepatitis B, Covid-19, and annual influenza. Students will receive a packet of information at the time of acceptance into Tunxis Community College Dental Hygiene Program.

Criminal Background Checks

Some clinical learning sites require students to undergo a background check for felony convictions. 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 the program.

Medical Emergency Response

Students are required to complete First Aid, Emergency Oxygen, and CPR at the professional level or healthcare provider or BLS. American Red Cross and American Heart Association two-year certifications are only accepted. Courses must be completed in August of the year the student begins the dental hygiene program. Tunxis Community College offers Basic Medical Support every year that meets those requirements.

Clinical Site

Clinical learning experiences are planned as an integral part of the dental hygiene courses and are held at a variety of health care 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 dental hygiene faculty.

Waiver of Licensure Guarantee

Upon successful completion of the associate of science degree in Dental Hygiene, the graduate is eligible to take the Dental Hygiene National Boards and apply for a license. The completion of the dental hygiene program does not insure a license to practice dental hygiene. Licensure requirements and procedures are the responsibility of the Connecticut Department of Public Health.

Felony Conviction

At the time of application for licensure an applicant will be asked the following question by the Connecticut Department of Public Health: "Have you ever been found guilty or convicted as a result of an act which constitutes a felony under the laws of this state, federal

law or the laws of another jurisdiction and which, if committed within this state, would have constituted a felony under the laws of this state? If your answer is "yes," give full details, dates, etc. on a separate notarized statement and furnish a certified court copy (with court seal affixed) of the original complaint, the answer, the judgment, the settlement, and/or the disposition."

Other Requirements

As a health care professional/student, you are at an increased risk for contracting blood borne infectious diseases. The School of Dental Hygiene is not responsible for any medical cost associated with you contracting any communicable disease during or prior to your education and/or participation in Tunxis Community College Dental Hygiene Program sponsored functions. If you contract a blood borne infectious disease before or during your enrollment appropriate health experts must be consulted to determine your ability to treat patients.

Dental Hygiene Special Admissions for High School Graduates:

The Tunxis Dental Hygiene Program will accept high school graduates to begin the three year sequence of courses.

The applicant must meet the following admission's criteria:

- High School Diploma
- SAT scores: Math 530 or greater, English reading score of 25+. SATs need to be taken within two years of application.
- High School GPA 3.0 or greater.

All applicants must take prerequisite courses in the sequence provided and maintain a C or better. If a student does not maintain a C in each course, the student will not be guaranteed automatic acceptance into the Dental Hygiene Program, but may apply for the regular selective admission's process.

Special Admission Requirements Dental Hygiene Associate Degree Program:

In addition to the academic admission requirements for Dental Hygiene, and for continual progression in the program, the following essential functions are also expected of all students with or without accommodations. Students must be able to fulfill these essential functions of the job without endangering patients or other healthcare workers. Students with Disabilities may be eligible for accommodations.

Students must have the following abilities:

- proficiency in their use of the English language and must possess effective oral and written skills in order to accurately transmit appropriate information to patients/clients, faculty, colleagues, and other healthcare workers
- gross and fine motor skills sufficient to lift, position, and operate equipment
- interpersonal skills such that they are capable of interacting with individuals, families and groups from a variety of social, economic and ethnic backgrounds
- the physical mobility necessary to move from place to place in small spaces as well as full range of motion, manual and finger dexterity
- physical endurance that enables them to stay on task for a prolonged period while sitting, standing or moving
- a high degree of hand-eye coordination
- auditory ability and other sensory skills must be sufficient to monitor and assess the health needs and diagnose the oral conditions of patients as well as maintain patient safety
- visual acuity and adequate spatial perception
- intact proprioception (the ability to sense pressure/force)
- present a professional appearance, attitude, and performance level, maintain personal health and be emotionally stable

Admission Requirements and Prerequisite Courses

BIO 1210 - General Biology I *Credits: 4*

ENG 1010 - Composition *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

MATH 1010 - Intermediate Algebra *Credits: 3*

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2112 - Anatomy & Physiology II *Credits: 4*

BIO 2350 - Microbiology *Credits: 4*

DHYG 2005 - Nutrition for Health Professionals *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1002 - Math for Science and Technology *Credits: 3*

OR MATH 1010 - Intermediate Algebra *Credits: 3*

OR MATH 1011 - Applied Algebra with Modeling *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1210 - General Biology I *Credits: 4*

PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (74 credits)

CHEM 1110 - Concepts of Chemistry *Credits: 4*

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2112 - Anatomy & Physiology II *Credits: 4*

BIO 2350 - Microbiology *Credits: 4*

SOC 1001 - Principles of Sociology *Credits: 3*

DHYG 2005 - Nutrition for Health Professionals *Credits: 3*

DHYG 2008 - Dental Hygiene Professionalism, Ethics, and Jurisprudence *Credits: 2*

DHYG 2009 - Fundamentals of Dental Hygiene Theory *Credits: 3*

DHYG 2010C - Fundamentals of Dental Hygiene Clinic *Credits: 2*

DHYG 2012 - Diagnostic Radiography for the Dental Hygienist *Credits: 4*

DHYG 2025 - Dental Materials for the Dental Hygienist *Credits: 2*

DHYG 2028 - Histology & Oral Anatomy for the Dental Hygienist *Credits: 4*

DHYG 2033 - Oral Medicine and Pathology *Credits: 2*

DHYG 2139 - Dental Hygiene II Theory *Credits: 3*

DHYG 2140C - Dental Hygiene II Clinic *Credits: 3*

DHYG 2259 - Dental Hygiene III Theory *Credits: 3*

DHYG 2260C - Dental Hygiene III Clinic *Credits: 4*

DHYG 2362 - Periodontics *Credits: 2*

DHYG 2364 - Pharmacology *Credits: 3*

DHYG 2267 - Community Oral Health *Credits: 3*

DHYG 2375 - Pain Control and Local Anesthesia for the Dental Hygienist *Credits: 3*

DHYG 2379 - Dental Hygiene IV Theory *Credits: 2*

DHYG 2380C - Dental Hygiene IV Clinic *Credits: 4*

DHYG 2268 - Civic Engagement for the Dental Hygienist *Credits: 3*

Total Credits: 96

Diagnostic Medical Sonography, AS (DMSN-AS)

The associate degree program in Diagnostic Medical Sonography (DMS) prepares students for employment as entry-level sonographers in hospitals, outpatient clinics, and medical offices. The program provides individuals with the academic and technical skills necessary to perform abdominal, obstetrical, and gynecological, and vascular sonography procedures. Upon completion of the program, students will be eligible to apply to take the national examination from the American Registry of Diagnostic Medical Sonographers (ARDMS) and/or American Registry of Radiologic Technologists (ARRT). The program requires 24 months of full-time study. Students are assigned to clinical practicum at affiliates throughout the state of Connecticut.

Learning Outcomes:

- Students will apply effective verbal communication skills with classmates, instructors, patients, sonographers, and physicians.
- Students will utilize effective written communication skills with instructors, sonographers, and physicians.
- Students will demonstrate professional and respectful behavior in all interactions.
- Students will evaluate and assess patient requisition in order to perform proper sonographic procedures.
- Students will examine the sonographic and Doppler appearances of iatrogenic, degenerative, inflammatory, traumatic, neoplastic, infectious, obstructive, congenital, metabolic, and immunologic disease practices
- Students will analyze the relationships between various disease processes and hemodynamic states
- Students will explore the various imaging and testing modalities
- Students will examine the effects of pharmacology on disease processes and on sonographic findings
- Students will demonstrate exceptional patient care skills.
- Students will provide a safe environment for patients.
- Students will detect normal anatomy and pathology on sonographic images.
- Students will adhere to the As Low as Reasonably Achievable (ALARA) principle.
- Students will maintain high values congruent with the professional code of ethics and the scope of practice while adhering to national, institutional, and/or departmental standards and procedures regarding imaging and patient care.
- Students will analyze professional publications.
- Students will utilize professional web sites.

The CT State Community College Gateway Campus Diagnostic Medical Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) by the recommendation of the Joint Review Committee of Education in Diagnostic Medical Sonography (JRC- DMS). Accreditation is in the Abdomen-Extended, OBGYN and Vascular concentration. Commission on Accreditation of Allied Health Education Programs (CAAHEP) 9355 113th St. N, #7709, Seminole, FL 33775, Phone: 727-210-2350, Fax: 727-210-2354, www.caahep.org The Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) is a nonprofit organization in existence to establish, maintain and promote quality standards for educational programs in Diagnostic Medical Sonography (DMS). JRC-DMS 6021 University Boulevard, Suite 500, Ellicott City, MD 21043, www.jrcdms.org

Students will be charged the Supplemental Course (program) Fee Level 1 every fall and spring semesters while in the program.

Admission Process

The Diagnostic Medical Sonography program (DMS) is a selective admissions program. All students must first apply to the Connecticut State Community college. Unless waived, all applicants must take placement tests in reading, English and mathematics. Students must attend a specific DMS program information session within one year prior to applying to the program and complete the sign in documentation. Students must have a minimum GPA of 2.7 and complete the following courses prior to the application deadline.

- ENG 1010 - Composition (grade of "C" or higher)
- MATH 1610 Precalculus (grade of "C" or higher)
- PHYS 1101 - Physics for Life Sciences (grade of "C" or higher)
- BIO 2111 - Anatomy & Physiology I (grade of "C" or higher taken within the past five years of the program start date)
- BIO 2112 - Anatomy & Physiology II (grade of "C or higher", and taken within the past five years of the start date)
- *Students may apply to the program while in the process of completing BIO 2112 during the spring semester of application year.*

Criminal Background checks and Toxicology screenings.

Clinical sites require criminal background checks and toxicology screening completed on any DMS student who will be attending a clinical rotation at their facility. Some clinical sites require additional FASC III background check checks at an additional cost.

Students must follow instructions for obtaining these tests.

The following guides the response to a positive toxicology screening for any student

- All specimens identified as non-negative/positive on the initial test shall be confirmed, reviewed, and interpreted by the vendor.
- The student is required to provide documentation by a healthcare provider in the event there is a medical explanation for a positive result (i.e., the result of a prescribed medication). In accordance with federal law, a positive toxicology screen for legally prescribed marijuana can prohibit a student from being placed in a clinical setting that accepts federal funding.
- If a student challenges a result, only the original sample can be retested.

Any student that does not pass a background check or toxicology screen may be prevented from participating in a clinical assignment per facility contractual agreements. Results of student background checks and toxicology screenings do not become a part of the student's educational records, as defined by the Family Educational Rights and Privacy Act (FERPA).

Felony Conviction:

The ARDMS and ARRT investigate all potential violations to determine eligibility for certification. For further information please visit the website www.ardms.org and www.arrt.org.

Health Requirements:

All Students are required to have a physical examination performed within 12 months of the DMS program start date, with documentation of ability to perform the technical standards with no restrictions. In addition to the college's healthcare requirements, a DMS health assessment form and immunization records must be completed and submitted electronically by the student into the health form tracking system, by the assigned date, prior to attending clinical rotation. The DMS technical standards can be found on GCC and SDMS Technical Standards - Gateway Community College (gatewayct.edu)

Additional program costs

DMS Students will be responsible for additional costs for the program which may include the following:

- Yearly student membership to the Society of Diagnostic Medical sonography (SDMS)
- Uniforms
- Physical examination, blood work, immunizations, vaccinations CPR training
- Textbooks
- Liability insurance
- Ergonomic scan kit
- Transportation and associated costs for clinical sites
- Electronic management system subscription to Trajecsyst and Castle branch.
- Toxicology screening(s)
- Background check(s)
- Onboarding fees for clinical affiliates
- National certification examination(s) (Sonographic Physics and instrumentation, Abdomen-Extended, OBGYN, and Vascular)
- More information regarding these costs is available online at the DMS webpage, and in the DMS student handbook, financial aid information is available through the Connecticut State Community College Financial Aid office.

Graduation requirements:

In addition to the College's general requirements the program requires a minimum grade of "C "or higher in all mathematics, science, pre-requisite and DMS program specific course. In addition, DMS students are required to pass all clinical practicums and internships with a grade of "P." Students must also successfully complete all the program's clinical competencies. The courses in the DMS program are designed to build upon the knowledge learned in the prior course, therefore all DMS courses must be taken in sequence.

Program Accreditation by CAAHEP, allows for DMS students to be eligible to take their national examinations through the American Registry of Diagnostic Sonography (ARDMS) in Abdomen-extended, OBGYN and vascular up to 60 days prior to graduation, making them eligible for employment upon graduation. Graduates are also eligible to apply for certification through the American Registry of Radiologic Technology.

General Education Courses (23 credits)

ENG 1010 - Composition *Credits: 3* (pre-admission requirement)
MATH 1610 - Precalculus *Credits: 4* (pre-admission requirement)
COMM 1301 - Public Speaking *Credits: 3*
PHYS 1101 - Physics for Life Sciences *Credits: 4* (pre-admission requirement)
PSY 1011 - General Psychology I *Credits: 3*
ENG 1020 - Composition II and Literature *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Program Courses (56 credits)

BIO 2111 - Anatomy & Physiology I *Credits: 4* (pre-admission requirement)
BIO 2112 - Anatomy & Physiology II *Credits: 4* (pre-admission requirement)
DMS 1000 - Principles of Sonography *Credits: 3*
DMS 1000L - Principles of Sonography Lab *Credits: 2*
DMS 1120 - Abdomen/Small Parts Sonography I *Credits: 3*
DMS 1120L - Abdomen/Small Parts Sonography I Lab *Credits: 1*
DMS 1121 - Obstetrics and Gynecology Sonography I *Credits: 3*
DMS 1121L - Obstetrics and Gynecology Sonography I Lab *Credits: 1*
DMS 1095 - Clinical Practicum I *Credits: 2*
DMS 1123 - Vascular Sonography I *Credits: 3*
DMS 1123L - Vascular Sonography 1 Lab *Credits: 1*
DMS 1124 - Sonographic Physics and Instrumentation I *Credits: 4*
DMS 1195 - Clinical Practicum II *Credits: 2*
DMS 2095 - Clinical Internship I *Credits: 4*
DMS 2221 - Abdomen/Small Parts Sonography II *Credits: 3*
DMS 2222 - Vascular Sonography II *Credits: 3*
DMS 2195 - Clinical Practicum III *Credits: 3*
DMS 2295 - Clinical Internship II *Credits: 1*
DMS 2225 - Obstetrics and Gynecology Sonography II *Credits: 3*
DMS 2226 - Advances in Sonography Seminar *Credits: 3*
DMS 2395 - Clinical Practicum IV *Credits: 3*

Total Credits: 79 (Pre-Program Credits: 19)

Digital Arts Technology, AS (DATX-AS)

The Digital Arts Technology (DAT) program provides students with an in-depth understanding of digital media creation and production. The aim of the program is to produce digital media designers for jobs in training, marketing, advertising, web development, broadcasting, audio production, graphic art, production and electronic publishing. Digital artists have become an integral part of the mainstream communications medium; positions in digital media design and development exist in business, industry, government, education, and entertainment.

NOTE: Can be a stand-alone degree or the directed electives allow for completion of one of six certificates embedded into the degree.

- Animation and Motion Graphics
- Audio Production
- Trending Technology in Digital Media
- Digital Graphics for Print and Screen
- Video Production
- Technical Communication

Learning Outcomes:

- Implement efficient time management and organizational practices.
- Effectively communicate and function both independently and as part of a team.
- Develop the ability to adapt and learn quickly.
- Utilize the phases of the project development life cycle to assist in the design, production, editing, and completion of original projects.
- Synthesize and apply the processes involved in transforming a concept to a final product.
- Complete significant projects terminating in deliverable software/media products.

The Digital Arts Technology A.S. degree provides technical experience to students seeking enhanced skills for employment in related areas. Students may enroll full or part-time; and may specialize in one of six areas of concentration earning a certificate and the AS degree. Students transfer to CT State Universities and private 4-year schools in-state, and many out of state universities. Courses in this program require access to the Naugatuck Valley DAT Computer Studio Lab or a student must have a computer with specialized software (including Adobe Creative Cloud, Autodesk's Maya, Pro-Tools, and others as industry dictates) to take the courses remotely.

DAT program courses are offered in the traditional classroom setting; via live broadcast, allowing students to take the courses remotely.

General Education Courses (30-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 Recommended) (Pending Spring 2023 Shared Governance Approval)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective ORAX - Oral Communication Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (30 credits)

DAT 1001 - Introduction to Digital Arts *Credits: 3*

DAT 1111 - Foundations of Web Development *Credits: 3*

DAT 1211 - Digital Graphics *Credits: 3*

DAT 1411 - Video Foundations *Credits: 3*

DAT 2990 - Digital Arts Project *Credits: 3*

ART 1210 - Two-Dimensional Design *Credits: 3*

OR DAT 1002 - Introduction to Photography *Credits: 3*

OR DAT 1000 - Graphic Design for DAT *Credits: 3* (Or Equivalent Course)

Designated Electives - 3 Courses (see advisor) *Credits: 9*

Choose One 2000-level DAT Elective:

- DAT 2131 - Multi-platform Web Development *Credits: 3*
- **OR** DAT 2411 - Video Editing and Enhancements *Credits: 3*
- **OR** DAT 2421 - Motion and Special Effects *Credits: 3*
- **OR** DAT 2211 - Image Compositing *Credits: 3*
- **OR** DAT 2321 - 3D Animation *Credits: 3*
- **OR** DAT 2221 - Vector Imaging *Credits: 3*
- **OR** DAT 2535 - Studio and On-Site Recording *Credits: 3*
- **OR** DAT 2145 - Programming for the Arts *Credits: 3*

Total Credits: 60-64

Digital Arts Technology: Animation & Motion Graphics Certificate (DATX-CC-ANM)

Students who complete the Animation & Motion Graphics Certificate will be able to design two and three-dimensional digital animation sequences, special effects, and interactive media assets for use in advertising, marketing, business and media industries. Certificate credits also apply to the Digital Arts Technology degree program and for transfer to BA/ BS programs at other colleges.

Learning Outcomes:

- Demonstrate efficient time management and organizational practices.
- Practice effective communication both independently and as part of a team.
- Recognize and use standard animation production workflow to facilitate project completion.
- Apply industry-standard techniques and tools to complete professional level animation components.
- Create state-of-the-art special effect techniques used in film and video.
- Complete significant projects resulting in a robust portfolio or demo reel.

Courses in this program require access to the Naugatuck Valley DAT Computer Studio Lab, or a student must have a computer with specialized software (including Adobe Creative Cloud, Autodesk's Maya, and others as industry dictates) to take the Hy-Flex courses.

DAT courses are available offered at the Naugatuck Valley Campus as Hy-Flex; HyFlex or BlendFlex is offered in the traditional classroom setting; it allows for virtual attendance since it is being broadcast (and recorded).

Required Courses

ART 1210 - Two-Dimensional Design Credits: 3
OR ART 1110 - Drawing I Credits: 3
DAT 1411 - Video Foundations Credits: 3
DAT 1311 - 2D Animation for Digital Arts Credits: 3
DAT 1321 - Fundamentals of 3D Graphics Credits: 3
DAT 2421 - Motion and Special Effects Credits: 3
DAT 2321 - 3D Animation Credits: 3

Total Credits: 18

Digital Arts Technology: Audio Production Certificate (DATX-CC-AUD)

Students who complete the certificate in Audio Production will be able to work in the fields of electronic music composition and audio production. Students will be exposed to important historical aspects of compositional styles, the impact of technology on music and art, and the technological tools to compose and edit audio for use in advertising, marketing, business and media industries. Certificate credits also apply to the Digital Arts Technology degree program and for transfer to BA/ BS programs at other colleges.

Learning Outcomes:

- Demonstrate efficient time management and organizational practices.
- Practice effective communication both independently and as part of a team.
- Analyze and evaluate the properties of sound, human hearing, and sound reproduction systems.
- Apply industry-standard techniques and tools to complete multi-track recording projects.
- Compose original electronic music compositions.
- Complete significant projects resulting in a robust demo reel.

Courses in this program require access to the Naugatuck Valley DAT Computer Studio Lab. Or a student must have a computer with specialized software (including Adobe Creative Cloud, Avid Pro-Tools, and others as industry dictates) to take the Hy-Flex courses.

DAT courses are available offered at the Naugatuck Valley Campus

Required Courses

MUS 1001 - Music History & Appreciation I *Credits: 3*
THR 2295 - Theater Practicum II *Credits: 3*
 OR MUS 1100 - Fundamentals of Music *Credits: 3*
 OR THR 1122 - Sound Design and Production *Credits: 3*
DAT 1511 - Electronic Audio Production I *Credits: 3*
DAT 2511 - Electronic Audio Production II *Credits: 3*
DAT 1525 - Acoustics and Sound Design *Credits: 3*
DAT 2535 - Studio and On-Site Recording *Credits: 3*

Total Credits: 18

Digital Arts Technology: Digital Graphics for Print & Screen Certificate (DATX-CC-DGP)

Students who complete the Digital Graphics for Print & Screen Certificate will be able to design two and three-dimensional graphics for both print and digital applications for use in Graphic art production, electronic publishing, broadcast, and web design. Certificate credits also apply to the Digital Arts Technology degree program and for transfer to BA/ BS programs at other colleges.

Learning Outcomes:

- Demonstrate efficient time management and organizational practices.
- Practice effective communication both independently and as part of a team.
- Recognize and use product development workflow that will facilitate project completion.
- Apply a combination of advanced techniques and development tools to create professional level digital and print media.
- Design professional looking graphics utilizing the appropriate tools for each project.
- Complete significant projects resulting in a robust portfolio.

Courses in this program require access to the Naugatuck Valley DAT Computer Studio Lab. Or a student must have a computer with specialized software (including Adobe Creative Cloud and others as industry dictates) to take the Hy-Flex courses.

DAT courses are available offered at the Naugatuck Valley Campus as Hy-Flex; HyFlex or BlendFlex is offered in the traditional classroom setting; it allows for virtual attendance since it is being broadcast (and recorded).

Required Courses

- DAT 1111 - Foundations of Web Development *Credits: 3*
- DAT 1221 - Digital Layout *Credits: 3*
- DAT 1211 - Digital Graphics *Credits: 3*
- DAT 1000 - Graphic Design for DAT *Credits: 3* (or equivalent course)
- DAT 2131 - Multi-platform Web Development *Credits: 3*
- DAT 2211 - Image Compositing *Credits: 3*
- OR** DAT 2221 - Vector Imaging *Credits: 3*

Total Credits: 18

Digital Arts Technology: Technical Communication Certificate (DATX-CC-TCH)

Students who complete the certificate in Technical Communication are prepared and empowered to be an effective communicator with the ability to write, illustrate, and speak about technical subjects in media, advertising, and business industries. This certificate can be completed in one semester, or applied to the TAP Communication or the Digital Arts Technology degree program and for transfer to BA/BS programs at other colleges.

Learning Outcomes:

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

- Demonstrate increased competencies in writing and speaking skills.
- Effectively articulate technical procedures to co-workers, management, and customers.
- Utilize current computer software, audio, and video tools in preparing technical presentations.
- Critically analyze diverse uses of technical communication, including current trends and effects of mass media, and the social impact of mass media on individuals and our American culture.
- Assess and articulate how various channels of mass media communication influence message content.

This certificate is focused on retraining workers who have a desire to improve their technical communication skills. DAT courses in this program require access to the Naugatuck DAT Computer Studio Lab or a student must have a computer with specialized software (including Adobe Creative Cloud, Autodesk's Maya, and others as industry dictates) to take the Hy-Flex courses.

DAT courses are available offered at the Naugatuck Valley Campus as Hy-Flex; HyFlex or BlendFlex is offered in the traditional classroom setting; it allows for virtual attendance since it is being broadcast (and recorded).

Required Courses

COMM 1010 - Introduction to Mass Communication Credits: 3

CIS 1001 - Introduction to Computers Credits: 3

OR CSA 1110 - Introduction to Software Applications Credits: 3

DAT 1001 - Introduction to Digital Arts Credits: 3

DAT 1221 - Digital Layout Credits: 3

DAT 1000 - Graphic Design for DAT Credits: 3 (or equivalent course)

ENG 1080 - Composition II: Technical Writing and Presentations Credits: 3

Total Credits: 18

Digital Arts Technology: Trending Technology in Digital Media Certificate (DATX-CC-TRD)

Students who complete the certificate in Trending Technology in Digital Media will be able to design webpages and media assets for use in advertising, marketing, business and media industries. Certificate credits are designed for individuals who have already earned advanced degrees and are looking for skill-enhancement opportunities; seeking the Digital Arts Technology degree program and for transfer to BA/ BS programs at other colleges.

Learning Outcomes:

- Demonstrate efficient time management and organizational practices.
- Practice effective communication both independently and as part of a team.
- Recognize and use product development phases and timelines that will facilitate the project development cycle.
- Develop and produce accessibility-compliant user interfaces.
- Produce interactive content for multiple digital and social media platforms simultaneously.
- Complete significant projects resulting in a robust portfolio.

Courses in this program require access to the Naugatuck Valley DAT Computer Studio Lab. Or a student must have a computer with specialized software (including Adobe Creative Cloud and others as industry dictates) to take the Hy-Flex courses.

DAT courses are available offered at the Naugatuck Valley Campus as Hy-Flex; HyFlex or BlendFlex is offered in the traditional classroom setting; it allows for virtual attendance since it is being broadcast (and recorded).

Required Courses

BMKT 2010 - Principles of Marketing *Credits: 3*
OR BMKT 2160 - Digital Marketing *Credits: 3*
COMM 1010 - Introduction to Mass Communication *Credits: 3*
DAT 1111 - Foundations of Web Development *Credits: 3*
DAT 1221 - Digital Layout *Credits: 3*
DAT 1125 - Interactive Media Design *Credits: 3*
OR DAT 2145 - Programming for the Arts *Credits: 3*
DAT 2131 - Multi-platform Web Development *Credits: 3*

Total Credits: 18

Digital Arts Technology: Video Production Certificate (DATX-CC-VID)

Students who complete the Video Production Certificate will be able to apply visual composition, lighting design, non-linear video editing, motion graphics design, audio production, and sound design for use in advertising, marketing, business and media industries. Certificate credits also apply to the Digital Arts Technology degree program and for transfer to BA/ BS programs at other colleges.

Learning Outcomes:

- Demonstrate efficient time management and organizational practices.
- Practice effective communication both independently and as part of a team.
- Recognize and use the multiple steps of the video production process to facilitate project completion.
- Apply industry-standard techniques and tools to complete professional level audio visual projects.
- Create state-of-the-art special effect techniques used in film and video.
- Complete significant projects resulting in a robust portfolio or demo reel.

Courses in this program require access to the Naugatuck Valley DAT Computer Studio Lab. Or a student must have a computer with specialized software (including Adobe Creative Cloud, Avid Pro-Tools, and others as industry dictates) to take the Hy-Flex courses.

DAT courses are available offered at the Naugatuck Valley Campus

Required Courses

COMM 1201 - Film Study and Appreciation *Credits: 3*
DAT 1002 - Introduction to Photography *Credits: 3* (or equivalent course)
DAT 1411 - Video Foundations *Credits: 3*
DAT 1525 - Acoustics and Sound Design *Credits: 3*
OR DAT 2535 - Studio and On-Site Recording *Credits: 3*
DAT 2411 - Video Editing and Enhancements *Credits: 3*
DAT 2421 - Motion and Special Effects *Credits: 3*

Total Credits: 18

Disability Specialist Certificate (DSAB-CC)

People with disabilities are an integral part of the community and should receive necessary community-based supports. This certificate program provides a concentration in on-the-job training in direct service situations, as well as specialized courses that relate to developmental disabilities, which prepares individuals for employment opportunities working people with disabilities, such as paraeducators and/or group home employees.

Learning Outcomes:

With the addition of experience in the field of disability and upon successful completion of all Disability Specialist certificate program requirements, graduates will:

- Define and discuss basic definitions, causes, psychological characteristics and educational approaches relevant to children with disabilities.
- Discuss how children and adults with disabilities have unique abilities rather than limitations.
- Compare various learning theories and their application to children and adults with disabilities.
- Demonstrate an understanding of ethical standards including confidentiality.
- Define ethical standards in the disability field and demonstrate confidentiality in written and oral assignments.

Required Courses

HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 2351 - Working with Individuals and Families *Credits: 3*
HSER 2420 - Group and Interpersonal Relations *Credits: 3*
HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*
PSY 1163 - Children with Disabilities *Credits: 3*
PSY 1173 - Adults with Disabilities *Credits: 3*
PSY 1183 - Learning Process and Disability *Credits: 3*
PSY 1184 - Assistive Technology Across the Lifespan *Credits: 3*
PSY 1185 - Issues and Trends in Disabilities *Credits: 3*

Total Credits: 30

Disability Specialist, AS (DSAB-AS)

The Disability Specialist associate degree program prepares students to work in a wide range of positions in private and public educational and human service agencies. Through individual consultation, each student will pursue a course of study with an emphasis upon the unique vocational goals the individual wishes to achieve. Every effort will be made to provide specific skill instruction; however, the focus of the curriculum is on building a strong knowledge base coupled with a positive value base that will prepare each student to assist children and adults with disabilities toward the goals of full community inclusion and participation, and the attainment of their potential.

This program builds upon the Americans with Disabilities Act of 1990, a landmark piece of legislation that provides basic civil rights to millions of people with disabilities in America. Students will become an important part of this dynamic movement.

Since most work settings are in the schools, workplaces, community associations, apartments and homes in the community, an understanding of "community-building" and "individual capacity-building" techniques and procedures is stressed. Creativity, sensitivity and a capacity to concentrate on the abilities of the whole person are essential characteristics of a disability specialist.

Learning Outcomes:

Upon successful completion of all Disability Specialist degree program requirements, graduates will:

- Define and discuss basic definitions, causes, psychological characteristics and educational approaches relevant to children with disabilities.
- Discuss how children and adults with disabilities have unique abilities rather than limitations.
- Identify current trends and issues, and define the impact of current national and state laws and policies, affecting people with disabilities and their families.
- Compare various learning theories and their application to children and adults with disabilities.
- Define ethical standards in the disability field and demonstrate confidentiality in written and oral assignments.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

Program Philosophy: People with disabilities are an integral part of the community and should receive necessary integrated community-based support.

Mission Statement: The Disability Specialist Program is to prepare students for careers in supporting children and adults with disabilities in the community by:

- recognizing and enhancing the dignity, respect and contribution of every child and adult with a disability
- providing information on job opportunities in the disability field to encourage the recruitment of young and continuing education students
- emphasizing, throughout the curriculum, community inclusion of all people with disabilities
- creating opportunities for interaction among the students, faculty, staff and members of the community with and without disabilities
- promoting the value of a Disability Specialist degree or certificate in the job market
- introducing students to assistive technology and other innovations in the continuously evolving field of supporting people with disabilities in the community.

Curriculum: Because of the flexible nature of this program, students may select a full- or part-time plan of study for an associate degree or a certificate option. There is no required course program requirements sequence in this associate degree.

General Education Courses (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 or MATH 1200 or MATH 1201 Recommended) (Pending Spring 2023 Shared Governance Approval)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

HSER 1001 - Introduction to Human Services *Credits: 3*
 HSER 2351 - Working with Individuals and Families *Credits: 3*
 PSY 1011 - General Psychology I *Credits: 3*
 HSER 1034 - Introduction to the Mental Health System *Credits: 3*
 HSER 2696 - Human Services Field Work I *Credits: 3*
 PSY 1185 - Issues and Trends in Disabilities *Credits: 3*
 PSY 1163 - Children with Disabilities *Credits: 3*
 PSY 1173 - Adults with Disabilities *Credits: 3*
 PSY 1183 - Learning Process and Disability *Credits: 3*
 PSY 1184 - Assistive Technology Across the Lifespan *Credits: 3*
 POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*
 Open Elective *Credits: 3 - suggested, HSER 2420*
 Open Elective *Credits: 3*

Total Credits: 60-63

Drug and Alcohol Recovery Counselor (DARC) Certificate (DARC-CC)

This program is ideal for individuals who are already working in the field of the treatment of substance use disorders, desire a fast-track to certification, are receiving clinical supervision, and/or hold an advanced degree in a closely related field (e.g., social work, counseling, etc.) who would like to supplement their expertise. DARC certificate recipients with degrees and/or experience are prepared for opportunities as counselors for those with substance use disorders in public and private agencies such as community and residential health facilities, hospitals, prevention organizations, youth and family services, and the criminal justice system.

The DARC certificate curriculum consists of 21 credits, meets the Connecticut Certification Board (CCB) requirements to become a CAC (certified addiction counselor), and prepares graduates to take the certification examination administered by CCB. The DARC certificate also satisfies the specialty education requirements for those currently holding a related Master's degree and are applying for licensure as an LADC.

Learning Outcomes:

Upon successful completion of the DARC Certificate, a recipient should be able to:

- Describe the physiological, emotional, physical, and psychological basis of substance use disorders.
- Define the causes and characteristics of substance use disorders relevant to various populations and cultures.
- Define, examine, and apply counseling theories to counseling those with substance use disorders.
- Define, demonstrate, and apply ethical principles and practices according to the CCB, and professional behavior for working directly in the counseling field.
- Demonstrate knowledge and skills related to counseling skills and relapse prevention education and strategies.
- Describe the categories of drugs and effects on the body, brain, and fetus.
- Describe characteristics of those with substance use disorders and specific treatment strategies for working with this population.
- Demonstrate the ability to develop, draft, and implement individual treatment plans.
- Describe and demonstrate the use of case management including screening, intake, evaluation, accurate records, treatment, and discharge in the treatment of persons with addiction.
- Describe and demonstrate skills involved in crisis intervention.
- Describe the purpose and availability of self-help groups for persons with substance use disorders.
- Describe the effects of substance use disorders on the family and community including education, health care, and the economy.
- Describe the stages of change model and recovery for families and their application to treatment of substance use disorders.
- Describe the transdisciplinary foundations and competencies required of substance abuse counselor.
- Describe the use of medication in the treatment of substance use disorders.

Required Courses

DARC 1001 - Public Health Issues and Addiction *Credits: 3*

DARC 1011 - Addiction Counseling I *Credits: 3*

DARC 1012 - Group Counseling Theory and Techniques *Credits: 3*

DARC 1058 - Biology of Addiction *Credits: 3*

DARC 2011 - Addiction Counseling II *Credits: 3*

ENG 1010 - Composition *Credits: 3*

DARC Elective - *See advisor or program coordinator for most appropriate elective choice Credits: 3*

Total Credits: 21

Drug and Alcohol Recovery Counselor, AS (DARC-AS)

The Drug and Alcohol Recovery Counseling (DARC) program provides the education and training needed to work effectively in the field of substance abuse disorders and recovery counseling. Students examine the techniques of professional counseling, current public health, trends and issues affecting the science of substance abuse disorders, counseling theories, continuum of care, environmental and familial risk factors contributing to substance use disorders, and counselor code of ethics. Students develop an understanding of the process of substance use disorders such as problem gambling, trauma-informed care, and knowledge of multicultural aspects of working with clients; and apply knowledge in a clinical setting by participating in two semesters of internships and seminar. The DARC program may also be ideal for professionals with advanced degrees who seek specialization in substance abuse counseling and certification as a Certified Addictions Counselor (CAC) from the Connecticut Certification Board (CCB) or licensure as a LADC (licensed alcohol and drug counselor) from the Department of Public Health (with a qualifying Master's degree).

Learning Outcomes:

Upon successful completion of a DARC Program graduate should be able to:

- Describe the physiological, emotional, physical, and psychological basis of substance abuse disorders.
- Define the causes and characteristics of substance dependence and addiction relevant to various populations and cultures.
- Define, examine, and apply counseling theories to substance abuse disorders counseling sessions.
- Define, demonstrate, and apply ethical principles and practices according to the CCB, and professional behavior for working directly in the counseling field.
- Demonstrate knowledge and skills related to relapse prevention education and strategies.
- Describe the categories of drugs and effects on psychological functioning.
- Describe characteristics of persons with a substance abuse disorder(s) and specific treatment strategies for working with this population.
- Demonstrate the ability to develop, draft, and implement individual treatment plans.
- Discuss the purpose of clinical supervision, participate in two internships, and co-facilitate group counseling sessions under supervision.
- Describe and demonstrate the use of case management including screening, intake, evaluation, accurate records, treatment, and discharge in the treatment of persons with one or more substance abuse disorders.
- Describe and demonstrate skills involved in crisis intervention.
- Describe the purpose and availability of self-help groups for persons with substance abuse disorders.
- Describe the effects of substance abuse on the family and community including education, health care, and the economy.
- Describe the stages of change model and recovery for families and their application to treatment of substance abuse disorders.
- Describe the use of multicultural counseling skills to assessment, treatment, and aftercare for persons of different gender/gender identity, ethnicity, disability, race, sexual orientation, ages including the elderly, and stages of life including homeless populations.
- Describe the transdisciplinary foundations and competencies required of alcohol or drug counselor.
- Describe the use of medication in the treatment of substance abuse.
- Develop 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).

Courses

All DAR course instructors are licensed drug and alcohol counselors by the State of CT Department of Public Health. Additionally, while certification is preferred for DAR course instructors it is not required. All DAR courses have a didactic component and most include experiential skill building. Students intending to graduate with a degree in DARC should earn a minimum grade of C in order to be adequately prepared for a career in addiction counseling and successfully complete the Counselor Certification Examination through CCB (Connecticut Certification Board).

Internships

Students must complete and submit a formal DARC internship application prior to the interview. Acceptance into a DARC internships with a seminar (DARC 2095, DARC 2195) is selective and not guaranteed. All interested students participate in a screening and interview process which is intended to evaluate whether the applicant possesses the skills, behaviors (practices), and attitudes necessary for work with individuals with a substance use disorder and/or co-occurring disorders. Interested applicants must have completed ENG 1010, DARC 1001, DARC 1011, DARC 1012 and DARC 1058 with a grade of C or better and the restricted elective DARC 2011 may

be completed concurrently during the first or second semester of internship. DARC coursework older than 5 years need to be re-taken prior to the internship. After the interviews, students are formally notified regarding acceptance to internship and ability to register for DARC 2095. Students who complete DARC 2095 successfully and without incidence are then eligible for DARC 2195. During the internships, students are required to carry malpractice liability insurance (average yearly cost \$15.00). Students are billed separately for this coverage and will be asked to pay the premium at the time of registration.

Articulation Agreements

There are active articulation agreements with the University of Bridgeport (Goodwin University) and the BSW program at Southern Connecticut State University.

Employment

Graduates with a DARC associates 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, hospitals, prevention organizations, rehabilitation, youth services, government, and the criminal justice system. According to the Occupational Outlook Handbook (2016-17 Ed.), employment of addiction/substance abuse 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.

General Education Courses (24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 (or higher)*

ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*

OR ARTH 1003 - Global Modern Art History 1850 to Present *Credits: 3*

OR MUS 1001 - Music History & Appreciation I *Credits: 3*

OR MUS 1002 - Music History & Appreciation II *Credits: 3*

BIO 1100 - Principles of the Human Body *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3 (COMM 1301 recommended for transfer)*

OR COMM 1302 - Interpersonal Communication *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (36 credits)

DARC 1001 - Public Health Issues and Addiction *Credits: 3*

DARC 1011 - Addiction Counseling I *Credits: 3*

DARC 1012 - Group Counseling Theory and Techniques *Credits: 3*

DARC 1058 - Biology of Addiction *Credits: 3*

DARC 2011 - Addiction Counseling II *Credits: 3*

DARC 2095 - Counseling Internship I *Credits: 6*

DARC 2195 - Counseling Internship II *Credits: 6*

PHIL 1101 - Ethics *Credits: 3*

PSY 2045 - Abnormal Psychology *Credits: 3*

Restricted Elective (3 credits):

DARC 2020 - Co-Occurring Disorders *Credits: 3*

DARC 1017 - Substance Abuse Prevention *Credits: 3*

DARC 1019 - Addiction Counseling in a Correctional Setting *Credits: 3*

DARC 2012 - Multicultural Addiction Counseling *Credits: 3*

DARC 1014 - Introduction to Family Systems *Credits: 3*

Total Credits: 60

ECED: Administration, Management, and Leadership Certificate (ECAD-CC)

This administrator's certificate is designed to provide a balanced, high-quality education for current and prospective administrators that serve the educator, and all families and young children. Course work is completed in the areas of administration and leadership, education, psychology, communications, inclusion and equity, and business management that mirror the required state competencies. Students who complete this certificate are qualified to serve in an administrative role in an early care and educational setting that meets the diverse needs of all children between the ages of 0 and 8.

Learning Outcomes:

Upon successful completion of the certificate, a recipient should be able to:

- Develop and maintain an effective organization, curriculum, and physical facility.
- Demonstrate an understanding of the administrator's responsibilities using acquired knowledge and skills.
- Administer, manage, and maintain standards of quality childcare and education programs.
- Foster positive community and family relationships.
- Apply basic business management knowledge, tools, and skills.
- Plan, implement, and guide effective administrative and management systems, policies, and procedures in care and education.

Required Courses

ECED 2706 - Administration and Supervision of Programs for Young Children *Credits: 3*

ECED 2712 - Management and Leadership in Programs for Young Children *Credits: 3*

ECED 2875 - Children, Families, and Communities *Credits: 3*

PSY 2047 - Industrial & Organizational Psychology *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

OR BMGT 2040 - Managerial Communications *Credits: 3*

ECED 2825 - Anti-Bias, Equity, and Diversity in Education *Credits: 3*

Total Credits: 18

ECED: Early Childhood Education Certificate (ECED-CC)

The certificate is designed to develop skills and knowledge necessary and desirable to work with all young children and transfer to the Associate of Science degree Early Childhood Education program. Students who complete this 24-credit certificate can provide the basic aspects of professional childcare and inclusion education such as lesson planning, instruction, guiding student behavior, supporting families, and caring for and monitoring the safety for all young learners including those with special needs.

Learning Outcomes:

Upon successful completion of the ECED Certificate, a graduate should be able to:

- Know and promote child development by understanding young children characteristics; the multiple influences development; and recognize and create appropriate learning environments where all young children thrive.
- Facilitate meaningful opportunities to foster physical, social, emotional, language, cognitive, and aesthetic development for all children from birth through age eight.
- Build, support, and engage family and community relationships through understanding and valuing diversity and all families and knowledge of the community; and create respectful, reciprocal relationships that involve all families in their children's education and development.
- Develop a basic knowledge of and use observation, documentation, and assessment including assistive technology positively and responsibly to describe, discuss, and promote positive outcomes for a child's learning and development including children with developmental delays and disabilities.
- Use effective communication in a professional setting.

Required Courses

ECED 1001 - Introduction to Early Childhood Care and Education *Credits: 3*

ECED 1002 - Foundations of Child Development *Credits: 3*

ECED 2515 - Exceptional Learners *Credits: 3*

ECED 2331 - Language Development and Emergent Literacy in Young Children *Credits: 3*

COMM 1302 - Interpersonal Communication *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1303 - Group Communication *Credits: 3*

OR ENG 1010 - Composition *Credits: 3*

OR ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

ECED, EDUC, or SPED Electives *Credits: 9*

Total Credits: 24

ECED: Early Childhood Education, AS (ECED-AS)

The Early Childhood Education program is designed to provide students with the skills, knowledge, and competencies necessary for effective teachers of all young children from birth through age eight in the 21st century. The curriculum provides a comprehensive general education core, pedagogical practice through field experiences, and a solid theoretical foundation in primary education as well as prepares graduates for transfer (course by course) to a baccalaureate program and prepares students for immediate employment in inclusive, diverse, and culturally responsive early care and education settings. For individuals currently employed in the field, this degree program strengthens and enhances professional competencies, skills, knowledge, and employability.

Field work is a principal instructional method and a requirement in specific program courses. Additional fees for field work such as background checks, fingerprinting, and other related costs are associated with this program of study. Education majors are expected to complete a minimum of 100 hours of observation and/or field work prior to student teaching and at minimum of 200 hours of student teaching.

Learning Outcomes:

Upon successful completion of all program requirements, graduates will:

- Know and promote child development by understanding young children's characteristics; the multiple influences development; and recognize and create appropriate and inclusive learning environments where all young children thrive.
- Facilitate meaningful opportunities to foster physical, social, emotional, language, cognitive, and aesthetic development for all children including those with special needs from birth through age eight.
- Build, support, and engage family and community relationships through understanding and valuing diversity and all families and knowledge of the community; and create respectful, reciprocal relationships that involve families in their children's education and development.
- Develop knowledge of and use observation, documentation, and assessment including assistive technology positively and responsibly to describe, discuss, and promote positive outcomes for a child's learning and development.
- Design and deliver a challenging, high-quality, twenty-first century curriculum.
- Demonstrate sound knowledge of the academic disciplines, content areas, and concepts and a broad inventory of appropriate teaching approaches and methods.
- Use developmentally appropriate pedagogical strategies and tools including the responsible and effective use of technology.
- Demonstrate professionalism by identification of oneself as an educator; practicing the ethical and legal responsibilities outlined in professional standards; and committing themselves to reflection and evaluation, continuous professional development, self-advocacy, and advocacy for children, families, and the profession.

Areas of study in this degree program include the 21st century learning skills, language education (including bilingual), reading, writing, literature for a young audience, multiliteracies, anti-bias and multicultural education, communication written and oral, creativity and innovation, global awareness, cultural competency, self-directed learning, digital literacies, critical media literacy, STEM, multimodality, special education, teamwork/collaboration, professional growth, curricula, problem-solving, advocacy, the 21st century learning skills, and leadership. In the interaction and interplay of these areas, our students and faculty seek to broaden the scope to meet the needs of all learners in a diverse society.

Students are expected to complete a minimum of 100 hours of observation and/or field placement prior to student teaching and at minimum of 200 hours of student teaching.

The degree program and ECED courses are aligned with the following standards: CT State Core Knowledge and Competencies (CKC), Division of Early Childhood of the Council for Exceptional Children (DEC), Early Intervention/Early Childhood Special Education (EI/ECSE), National Association for the Education of Young Children (NAEYC), and Office of Special Education Programs (OSEP).

The following programs are accredited by the Commission on the Accreditation of Early Childhood Higher Education Programs of the National Association for the Education of Young Children:

- A.S. Early Childhood Education, Asnuntuck Community College - Current term 3/1/2018-3/31/2025
- A.S. Early Childhood Education and A.A. CSU Pathway Transfer Degree: Early Childhood Teacher Credentialing Studies ECTC Level A, Capital Community College - Current term 3/1/2020-12/31/2022
- A.S. Early Childhood Education, Gateway Community College - Current term 7/1/2017-7/31/2024
- A.S. Early Childhood Inclusive Education, Housatonic Community College - Current term 7/1/2018-7/31/2025
- A.S. Early Childhood Education, Manchester Community College - Current term 7/1/2021-12/31/2023
- A.S. Early Childhood Education, Middlesex Community College - Current term 3/1/2021-3/31/2024

A.S. Early Childhood Education, Naugatuck Valley Community College - Current term 3/1/2019-3/31/2026
 A.S. Early Childhood Education, Northwestern Connecticut Community College - Current term 3/1/2020-3/31/2023
 A.S. Early Childhood Education Career and A.A. Early Childhood Teacher Credential Studies (CSCU Transfer), Norwalk Community College - Current term 7/1/2019-7/31/202
 A.S. Early Childhood Education, Quinebaug Valley Community College - Current term 3/1/2020-3/31/2027
 A.S. Early Childhood Education, Three Rivers Community College - Current term 3/1/2020-12/31/2022
 A.S. Early Childhood Education, Tunxis Community College - Current term 3/1/2019-3/31/2026

Graduates are eligible for transfer and admission to four-year colleges and universities. Please consult with a guided pathways counselor for the specific requirements for the transfer institution(s) of your choice.

Students planning to transfer to Central, Eastern, Southern, or Western Connecticut State University should follow the course selection guide found here:

ECED: Early Childhood Education: Transfer Track, AS (ECED-AS-TRS)

General Education Courses (21-24 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1000 or higher *Credits 3-4*
 PHIL 1101 - Ethics *Credits: 3* ^{*1}
 Elective SCRX - Scientific Reasoning Course *Credits: 3-4*
 OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 HIST 1015 - US History to 1877 *Credits: 3*
 OR HIST 1016 - US History from Reconstruction *Credits: 3* ^{*2}
 ENG 1020 - Composition II and Literature *Credits: 3* ^{*3}
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

PSY 1011 - General Psychology I *Credits: 3*
 ECED 1001 - Introduction to Early Childhood Care and Education *Credits: 3*
 ECED 1002 - Foundations of Child Development *Credits: 3*
 ECED 2875 - Children, Families, and Communities *Credits: 3*
 ECED 2410 - Observation, Documentation, and Assessment of Young Children *Credits: 3*
 ECED 2515 - Exceptional Learners *Credits: 3*
 Electives: Choose from ECED, EDUC, or SPED courses *Credits: 6*
 ECED 2331 - Language Development and Emergent Literacy in Young Children *Credits: 3*
 ECED 2322 - Curriculum and Methods for Diverse Learners *Credits: 3*
 ECED 2690 - Student Teaching I *Credits: 3* **AND** ECED 2692 - Student Teaching II *Credits: 3*
 OR ECED 2695 - Student Teaching Practicum *Credits: 6*
 ECED 1303 - Creative Arts and Experiences *Credits: 3*
 OR ECED 1306 - Music and Movement for Children *Credits: 3*
 OR ECED 2307 - The Natural Sciences and Young Children *Credits: 3*
 OR ECED 2309 - STEM for Young Children *Credits: 3*

Total Credits: 60-63

¹ Elective ARHX Arts & Humanities Course

² Elective HISX Historical Knowledge Course

³ ENG 1020 Composition II and Literature

OR ENG 1080 Composition II: Technical Writing & Presentations

OR COMM 1302 Interpersonal Communication

OR COMM 1301 Public Speaking

OR COMM 1303 Group Communication

⁴ ECED 1303 Creative Arts & Experiences

OR ECED 1306 Music and Movement for Students

OR ECED 2307 The Natural Sciences & Young Children

OR ECED 2309 STEM for Young Children

OR for transfer choose an OPEN elective

students should consult an advisor if accommodations are needed for courses chosen from this outline between May 2023 and November 2023

ECED: Early Childhood Education: Transfer Track, AS (ECED-AS-TRS)

This program is based articulation agreements with four-year institutions for students who plan on transferring to earn a State of Connecticut Teacher Certification in early childhood education. The curriculum includes a comprehensive general education core, pedagogical practice through field experiences, and an inclusive 21st century curriculum grounded in theory and evidence-based best practices. Students are strongly encouraged to consult with a guided pathways or transfer counselor in addition to their academic program advisor each semester to review the degree evaluation and plan of study for advising on course registration. Additionally, consulting with an academic advisor at the four-year university of their choice is strongly recommended. Field work is a principal instructional method and requirement in specific program courses.

Program Learning Outcomes:

Upon completion of all program requirements, graduates have/are prepared to:

- Transfer to a four-year college/university to complete their academic studies in teacher education for early childhood.
- Transfer (for accepted students) to a School of Education from transfer advising (two-year campus transfer counselor, four-year campus transfer counselor, and degree program advisor).
- Completed a rigorous, competency-based education program of study.
- Earned an associate of science degree with an emphasis in teacher education (early childhood education) and careers in teaching.
- Promote child development by understanding young children's characteristics; the multiple influences development; and recognize and create appropriate and inclusive learning environments where all young children thrive.
- Facilitate meaningful opportunities to foster physical, social, emotional, language, cognitive, and aesthetic development for all children including those with special needs from birth through age eight.
- Build, support, and engage family and community relationships through understanding and valuing diversity and all families and knowledge of the community; and create respectful, reciprocal relationships that involve families in their children's education and development.
- Develop knowledge of and use observation, documentation, and assessment including assistive technology positively and responsibly to describe, discuss, and promote positive outcomes for a child's learning and development.
- Design and deliver a challenging, high-quality, twenty-first century curriculum.
- Demonstrate sound knowledge of the academic disciplines, content areas, and concepts and a broad inventory of appropriate teaching approaches and methods.
- Use developmentally appropriate pedagogical strategies and tools including the responsible and effective use of technology.
- Demonstrate professionalism by identification of oneself as an educator; practicing the ethical and legal responsibilities outlined in professional standards; and committing themselves to reflection and evaluation, continuous professional development, self-advocacy, and advocacy for children, families, and the profession.

Under current provisions, graduates of this path of study with a grade point average of 2.7 or higher, who receive this associates degree can apply to the Schools of Education and/or Professional Studies at four-year colleges and universities. Upon acceptance, credits may transfer toward a bachelor's degree in teacher education. Note that admission to the university does not automatically guarantee admission to the School of Education or the Teacher Education program.

The degree program and ECED courses are aligned with the following standards: CT State Core Knowledge and Competencies (CKC), Division of Early Childhood of the Council for Exceptional Children (DEC), Early Intervention/Early Childhood Special Education (EI/ECSE), National Association for the Education of Young Children (NAEYC), and Office of Special Education Programs (OSEP). The Early Childhood Education associate degree program is currently a national accredited program by the National Association for the Education of Young Children (NAEYC).

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1004 - Math for Elementary Education: Algebra/Number Systems *Credits: 3*

PHIL 1101 - Ethics *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4 *1*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

HIST 1015 - US History to 1877 *Credits: 3*

OR HIST 1016 - US History from Reconstruction *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

PSY 1011 - General Psychology I *Credits: 3*

ECED 1001 - Introduction to Early Childhood Care and Education *Credits: 3*

ECED 1002 - Foundations of Child Development *Credits: 3*

ECED 2875 - Children, Families, and Communities *Credits: 3*

ECED 2410 - Observation, Documentation, and Assessment of Young Children *Credits: 3*

ECED 2515 - Exceptional Learners *Credits: 3*

ECED 2331 - Language Development and Emergent Literacy in Young Children *Credits: 3*

ECED 2322 - Curriculum and Methods for Diverse Learners *Credits: 3*

Open Electives: *Consult program advisor, a Guided Pathways Advisor, or transfer counselor Credits: 9*

MATH 1410 Math for Elementary Ed, Geometry/Data recommended for EE focus

ECED 2690 - Student Teaching I *Credits: 3* **AND** ECED 2692 - Student Teaching II *Credits: 3*

OR ECED 2695 - Student Teaching Practicum *Credits: 6*

Total Credits: 60-62

ECED: Infant and Toddler Certificate (ECED-CC-INF)

Students who complete this certificate are qualified to develop and foster a nurturing environment for all children birth to three in professional early care inclusive settings. In this certificate, the program of study is designed for students to demonstrate specialized knowledge that promotes positive outcomes for infants and toddlers and on healthy development including social and emotional development through observation, assessment, and documentation. Upon completion of the Infant and Toddler certificate, graduates are well prepared to assist in all aspects of a high-quality educational program that includes intentional teaching, supervision, guidance, and nurturing for ages birth to three and children at-risk.

Learning Outcomes:

Upon successful completion of the certificate, a graduate should be able to:

- Recognize and identify current and historical theoretical early childhood educational approaches specifically as it relates to all children ages 0 to 3.
- Apply child development theory to practice to all infants and toddlers including diverse learners and at-risk learners.
- Design developmentally appropriate curriculum for all young children ages 0-3.
- Practice intentional, respectful, reciprocal, and responsive teaching and care.
- Advocate for all young children and their families.
- Practice professional reflection.
- Incorporate theory into classroom practice utilizing standards, code of ethics, and best practices.
- Practice collaborative community education that includes area partners and families.

Required Courses

ECED 1104 - Infant and Toddler Growth and Development *Credits: 3*

ECED 1142 - Fundamentals of Infant and Toddler Care and Education *Credits: 3*

ECED 1143 - Developmental Interventions for Infants and Toddlers at Risk *Credits: 3*

ECED 2331 - Language Development and Emergent Literacy in Young Children *Credits: 3*

ECED 1376 - Health and Wellness *Credits: 3*

ENG 1010 - Composition *Credits: 3*

ECED or SPED Electives *Credits: 6 (See advisor or ECE program coordinator for most appropriate elective choice)*

Total Credits: 24

Economics Studies - TAP/CSCU Transfer Degree , AA (ECON-AA-TAP)

This program is a **CSCU Pathway Transfer Degree in Economics Studies, A.A.** that is intended for Connecticut Community College students to transfer to Connecticut State Universities (Southern CT State University, Central CT State University, Eastern State University, Western State University) and Charter Oak State College without either losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline.

Program Outcomes:

- Complete an Associate of Arts degree in Economic Studies.
- Transfer seamlessly into a Bachelor of Arts or Science Degree in Economics with junior-level status in the receiving CSCU institution as part of the CSCU Transfer Tickets program.

Student Learning Outcomes:

- Students will be able to analyze and evaluate real world economic problems using statistical methods.
- Students will be able to effectively communicate economic based solutions to multiple audiences.
- Students will be able to demonstrate an understanding of macroeconomic concepts, theories, measurements and policies.
- Students will be able to demonstrate an understanding of microeconomic concepts, theories, measurements and policies.

Framework Courses (30-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 2500 - Calculus for Business and Social Science *Credits: 3*

OR MATH 2600 - Calculus I *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30-31 credits)

Elective CRTY - Creativity Course *Credits: 3*

Elective GLKY - Global Knowledge Course *Credits: 3*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

ECON 1002 - Principles of Microeconomics *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Unrestricted Electives *Credits: 15*

Total Credits: 60-65

Electronic Engineering Technology, AS (ELET-AS)

CT State Community College's Electronic Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>. ABET accreditation provides assurance that the curriculum meets the quality standards that the industry employers of our graduates require and that the academic rigor allows for transferability to four-year electronic technology and electrical engineering programs.

Students will gain the credentials and skills required to enter the workforce in one of the many diverse industrial sectors seeking qualified electronic technicians. Our graduates gain careers in fields such as the electric power utilities, aviation, manufacturing, controls and automation. Typical job titles are electronic technician, junior designer, field service technician, repair technician, test technician, airway transportation system specialist, scada technician, substation designer, and junior controls/automation engineer. 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.

The program emphasizes the fundamentals of DC and AC circuit theory, solid-state electronics and digital electronics, but also stresses the role of computers, computer software, CAD systems, programming, microcontrollers, programmable logic controllers (PLC's), data acquisition, instrumentation, robotics, and control systems. The classroom taught theory is fundamental to the learning process and practical "hands-on" experience is an extensive and integral component of the curriculum. The Electronic Engineering Technology graduate will be adept at building, testing, and troubleshooting many types of electrical circuits and systems using state-of-the-art electronic instrumentation and software. A required senior capstone project course will allow the student to demonstrate mastery of the concepts and tools learned as they use electronic CAD software to design a printed circuit board (PCB), use proper fabrication techniques to assemble the PCB, test, and troubleshoot until a functioning project is realized.

The broad based curriculum provides a solid foundation for graduates to confidently enter the work force or transfer to a four-year university.

Program Educational Objectives

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

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

1. apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the electronic engineering technology discipline;
2. design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
3. apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
4. conduct standard tests, measurements, and experiments and to analyze and interpret the results using appropriate electronic instrumentation and computer software for both analog and digital circuits;
5. function effectively as a member of a technical team; and
6. work in a safe and ethical manner 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.

The Electronic Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.ABET.org. The program courses are available at the Naugatuck Valley campus. Graduates of the program transfer to Central Connecticut State University's B.S. Electronics Technology program, University of New Haven's B.S. Electrical & Computer Engineering program, and Fairfield University's Electrical Engineering program. Graduates have the credentials to start careers in the in-demand electronic engineering technology profession at job classification levels that only the A.S. degree allows.

General Education Courses (23-24 credits)

ENG 1010 - Composition *Credits: 3*
MATH 1610 - Precalculus *Credits: 4*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
PHYS 1100 - Introductory Physics *Credits: 4*
 OR PHYS 1201 - General Physics I *Credits: 4*
 OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*
Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 OR Elective HISX - Historical Knowledge Course *Credits: 3*
Elective ORAX - Oral Communication Course *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Program Courses (44 credits)

EETA 1004 - Electronics Assembly and CAD *Credits: 1*
EETA 1010 - DC Circuit Analysis *Credits: 4*
EETA 1026 - Programming Using LabVIEW *Credits: 2*
EETA 1014 - AC Circuit Analysis *Credits: 4*
EETA 1036 - Electronic Devices *Credits: 4*
EETA 2032 - Advanced Electronic Devices *Credits: 4*
EETA 2052 - Digital Electronics *Credits: 4*
EETA 2051 - Electronic Instrumentation *Credits: 3*
EETA 2008 - Applied Calculus for Circuits *Credits: 4*
 OR MATH 2600 - Calculus I *Credits: 4*
EETA 2056 - Microcontrollers *Credits: 4*
EETA 2053 - Advanced Digital Electronics *Credits: 4*
EETA 2090 - Capstone Project *Credits: 2*
EETA 2068 - Control Systems *Credits: 4*
 OR EETA 2072 - Electronic Communications *Credits: 4*
 OR EETA 2062 - Electrical Machinery & Controls *Credits: 4*

Total Credits: 67

EMT to Paramedic Pathway Certificate (EMTC-CC)

The EMT (Emergency Medical Technician) to Paramedic Pathway certificate prepares students to sit for the national Emergency Medical Technician-Basic certification exam. It also meets the educational requirements for entry into the Paramedic Certificate and Associate Degree Programs. This certificate provides graduates with the skills to enter into the job market in a field with high demand and consistent employment opportunities.

Learning Outcomes:

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

- Demonstrate the knowledge, skills, and behaviors necessary to function as competent entry-level Emergency Medical Technicians (Basic)
- Demonstrate knowledge of the human body and how it functions, as well as how diseases, disorders, and injuries impact that function.
- Demonstrate effective verbal and written communication skills and use of medical terminology.
- Identify the roles and responsibilities of the Emergency Medical Technician.
- Apply ethical, logical, critical, and analytical processes in identifying problems, alternative solutions and making informed decisions related to the prehospital/emergency healthcare environment.
- Sit for the Emergency Medical Technician-Basic certification exam

Required Courses

EMT 1000 - Emergency Medical Technician *Credits: 6*

MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*

ENG 1010 - Composition *Credits: 3*

MATH 1010 or higher *Credits: 3-4*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Total Credits: 19-20

Engineering Science, AS (ENSC-AS-COT)

As part of the Connecticut College of Technology (COT), the Engineering Science A.S. degree program prepares students primarily for transfer to complete a B.S. degree in chemical, civil, computer science, electrical, mechanical, industrial or materials engineering. Graduates will receive a background in engineering, mathematics, science, and general education courses for seamless transfer with junior status in a B.S. degree at COT partner universities.

Program Learning Outcomes:

- Apply engineering, mathematical, scientific and technological principles and concepts to identify and formulate solutions to engineering problems.
- Apply critical thinking and problem-solving skills to solve engineering problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

Program Descriptors:

Through COT's articulation agreement with partner universities, students who get an Associate degree in Engineering Science (with certain GPA's) can transfer seamlessly at junior level to the following institutions: University of Connecticut, Central Connecticut State University, Southern Connecticut State University, Eastern Connecticut State University, Fairfield University, University of Hartford, University of New Haven, University of Bridgeport, Sacred Heart University, and Charter Oak State College.

General Education Core Courses (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

PHIL 1101 - Ethics *Credits: 3*

CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

OR ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (45-47 credits)

Elective BHEL - Behavioral Science Elective *Credits: 3* ANTH, PSY, SOC - ANTH recommended for transfer

Elective SSCI - Social Science Elective *Credits: 3* (Economics Recommended)

PHYS 2201 - Calculus-Based Physics I *Credits: 4*

PHYS 2202 - Calculus-Based Physics II *Credits: 4*

MATH 2610 - Calculus II *Credits: 4*

MATH 2620 - Calculus III: Multivariable *Credits: 4*

MATH 2622 - Differential Equations *Credits: 4*

EGR 1110 - Introduction to Engineering *Credits: 3*

EGR 2211 - Engineering Statics *Credits: 3*

Choose an introductory programming course *Credits: 3*

CSC 1201, CSC 1203, CSC 1211, CSC 2212, CSC 2214, EGR 1115, EGR 2230 EGR 2201, or EGR 2250

EGR 2215 - Thermodynamics I *Credits: 4*

Specialization Electives (6-8 credits)

Students may take any EGR course, any CAD course, BIO 1210, BIO 1220, CHEM 1220, CHEM 2310, or EETA 2052 to fulfill this requirement.

For convenient transferability, it is recommended that students choose and take one of the sequences shown below:

- BioMedical / BioMechanics: BIO 1210 - General Biology I *Credits: 4* AND CHEM 1220 - General Chemistry II *Credits: 4*
- Mechanical / Robotics/ Aerospace / Manufacturing / AE&M: EGR 2212 - Engineering Dynamics *Credits: 3* AND EGR 2221 - Introduction to Electrical Circuit Analysis *Credits: 4*
- Electrical: EGR 2221 - Introduction to Electrical Circuit Analysis *Credits: 4* AND EETA 2052 - Digital Electronics *Credits: 4*
- Civil: CAD 1010 - Introduction to CAD *Credits: 3* AND BIO 1220 - General Biology II *Credits: 4*
- Chemical: CHEM 1220 - General Chemistry II *Credits: 4* AND CHEM 2310 - Organic Chemistry I *Credits: 4*
- Environmental: BIO 1220 - General Biology II *Credits: 4* AND CHEM 1220 - General Chemistry II *Credits: 4*

Total Credits: 68-70

English as a Second Language: Advanced English Proficiency Certificate (ENGC-CC)

The English as a Second Language (ESL) 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. The curriculum includes general college courses in composition, literature, and speech, as well as ESL. Students may also use this certificate in their native countries as verification of their advanced language study and proficiency in the English Language. Both full and part-time students whose native language is not English are eligible for this program.

Learning Outcomes:

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

- Write with precision and detail in a variety of contexts.
- Comprehend diverse texts which are conceptually abstract and linguistically complex.
- Understand extended spoken discourse on contextualized and abstract topics such as in lectures, speeches, and reports.
- Express their own ideas with fluency, accuracy and comfort and participate effectively in discourse on practical, academic, social and professional topics.

Required Courses

ESOL 1402 - Integrated Skills IV: Low Advanced *Credits: 6*

ESOL 1502 - Integrated Skills V: High Advanced *Credits: 6*

ENG 1010 - Composition *Credits: 3*

Directed Communication Electives - choose one from the list below (3 credits)

ESOL 1407 - Communications IV: Low Advanced *Credits: 3*

COMM 1000 - Introduction to Communication *Credits: 3*

COMM 1302 - Interpersonal Communication *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

COMM 1305 - Intercultural Communication *Credits: 3*

Directed Writing Electives - choose one from the list below (3 credits)

ENG 1020 - Composition II and Literature *Credits: 3*

ENG 1030 - Composition II and Non-fiction Texts *Credits: 3*

HIST 1002 - Western History from the 1500s *Credits: 3*

HIST 1015 - US History to 1877 *Credits: 3*

HIST 1016 - US History from Reconstruction *Credits: 3*

HIST 2016 - African American History to 1877 *Credits: 3*

POLS 1002 - American Government *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

Total Credits: 21

English Studies - TAP/CSCU Transfer Degree, AA (ENGL-AA-TAP)

The English Studies program provides students with a strong foundation in the liberal arts while introducing them to the study of literature and creative writing at the college level. The program is one of the Connecticut State Colleges & Universities (CSCU) Pathway Transfer, A.A. degree programs for Connecticut State Community College (CT State) students who wish to transfer to one of the Connecticut State Universities (CSU) or Charter Oak State College (COSC) without either losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline. CT State students can 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.

Learning Outcomes:

Program Objectives:

- Complete an Associate of Arts degree in English Studies.
- Transfer seamlessly into a Bachelor of Arts (BA) degree program in English with junior-level status in the receiving CSCU institution as part of the CSCU Transfer Tickets program.

Upon successful completion of all English Transfer Ticket degree program requirements, graduates will

- Analyze in writing literary texts using the conventions and discourse of English studies.
- Recognize at an introductory level the relationships among literature, culture, and history across multiple cultures, genres, and time periods.
- Demonstrate an understanding of the function of aesthetic elements in literature.

In addition, the graduate will complete the comprehensive learning outcomes identified within the General Education Core.

Students are free to choose any courses at or above 1000-level to complete 11- 14 credits of unrestricted electives. If Unrestricted Electives are used to take additional ENG courses, keep the CSU/COSC policies (listed below) in mind. Students should meet with their advisor before selecting any additional courses.

Central Connecticut State University (CCSU). For the English BA, Pathway students can use in the major either of the British or American surveys (221, 222, 231, 232) that they do not use to fulfill the other Pathway requirements. Creativity Course: Study Area I: Arts & Humanities Global Knowledge Course: Study Area II: Social Sciences

Eastern Connecticut State University (ECSU). For the English BA, Literary Studies, three (and sometimes four) additional 200-level ENG courses can be applied: one from ENG 210 (Fiction), ENG 213 (Poetry), & ENG 114 (Childrens Literature); one from ENG 250 (Studies in Ethnic Literature), ENG 251 (African American Literature), ENG 262 (Women in Literature), ENG 263 (Women in Poetry), & ENG 264 (Poetry and Women's Lives); one from ENG 281 (Creative Writing); and one from ENG 221 (American Literature I), ENG 222 (American Literature II), ENG 231 (British Literature I), & ENG 232 (British Literature II)

- For the English BA, Rhetoric and Composition, ENG 281 can be applied.
- For the English BA, Cultural Studies, two from ENG 114, ENG 250, ENG 251, ENG 262; and one from ENG 281 can be applied.
- For the English BA, Creative Writing one from ENG 210, ENG 213, ENG 214 (Drama), ENG 263, and ENG 264; and one from ENG 281, can be applied
- Creativity Course: Creative Expressions
- Global Knowledge Course: Individuals and Society

Southern Connecticut State University (SCSU). For the English BA, Literature OR English BA, Professional Writing, no additional 100- or 200-level courses will be applied. For the English BA, Creative Writing, ENG 282 (Creative Writing: Poetry) & ENG 283 (Creative Writing: Fiction) will be applied

- Creativity Course: Creative Drive
- Global Knowledge Course: Global Awareness

Western Connecticut State University (WCSU).

- For the English BA, 2 of the remaining courses from ENG 221, ENG 222, ENG 231, & ENG 232 will be applied

- Creativity Course: General Education Elective / Second Exposure to Creative Process and also Explorations if outside the major
- Global Knowledge Course: Intercultural Competency and also Explorations if outside the major

Charter Oak State College.

- For the English BA, 4 additional 200-level courses will be applied Creativity Course: Open Elective
- Global Knowledge Course: Global Understanding

Students may need to use the unrestricted credits to take courses that prepare them for required courses in the degree program. Students 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 students complete a minor by earning at least 18 credits in one area outside the major field; students must complete at least 9 of those minor credits at Central. Students can also complete other General Education requirements for CCSU, SCSU, WCSU, and COSC-but not ECSU. Students are encouraged to meet with their advisor to determine which courses to select.

Information on additional courses students might take if they have free elective room, including major courses as well as remaining general education courses for each CSU, with equivalency information for each CSU, can be found at

<http://www.ct.edu/transfer/transferring>

Framework Courses (31-34 credits)

ENG 1010 - Composition Credits: 3
 MATH 1100 or higher 3-4 credits
 Elective ARHX - Arts & Humanities Course Credits: 3-4
 Elective SCRX - Scientific Reasoning Course Credits: 3-4
 Elective SBSX - Social / Behavioral Science Course Credits: 3
 ENG 1020 - Composition II and Literature Credits: 3
 OR ENG 1030 - Composition II and Non-fiction Texts Credits: 3
 Elective SCKX - Scientific Knowledge Course Credits: 3-4
 Elective HISX - Historical Knowledge Course Credits: 3
 Elective ORAX - Oral Communication Course Credits: 3
 CCS 1001 - College & Career Success Credits: 3

Pathway Courses (29 credits)

Elective CRTX - Creativity Course Credits: 3 - *a Creative Writing course is strongly encouraged*
 Elective GLKY - Global Knowledge Course Credits: 3
 ENG 2620 - American Literature I **AND** ENG 2540 - British Literature II Credits: 6
OR ENG 2520 - British Literature I **AND** ENG 2640 - American Literature II Credits: 6
 Western Literature or World Literature Course Credits: 3 (*options include: ENG 2320, ENG 2340, ENG 2420, ENG 2440*)
OR any other course (see italicized note below) that meets these four criteria

1. 75% of the authors are non-English, non-American (here we trust the judgment of faculty for, say, a foreign-born writer now writing in America in English; one clear standard might be a writer in translation)
2. Historical breadth of the course (not a Contemporary Indian Literature course, for example)
3. Cultural breadth (across cultures; not Western African Literature, for example, but African Literature)
4. Not necessarily multi-genre (a world literature course in a single genre could fulfill this).

(*This course must be approved by English Studies Program Coordinator*)

Open Electives - Credits: 14

Total Credits: 60-63

Environmental Engineering Technology, AS (EVET-AS)

The Environmental Engineering Technology program is designed for students interested in becoming environmental technicians or beginning their pathway in environmental engineering. Common duties of environmental technicians include inspecting and maintaining monitoring equipment, controlling and managing hazardous waste, collecting samples (water, air, and/or soil), managing waste operations, assisting with regulatory compliance and other duties as needed. Environmental Engineering Technicians are involved with sustainability projects, research to develop solutions to control climate change which effects ocean acidification, stormwater management, erosion and sedimentation control, and understanding and controlling flooding events, food security and agriculture sustainability, and other important environmental issues.

The degree focuses on practical education with courses covering basic quantitative and conceptual skills required of environmental engineering technicians, including the comprehensive and technical aspects of environmental issues and common environmental methods. Environmental Engineering Technicians work with Environmental Engineers and Scientists to identify, evaluate, prevent and control contamination of the environment associated with air, water, and land. Environmental technicians often work both in lab environments and in the field. The broad-based curriculum meets the demands of a range of environmental positions. Graduates work for manufacturing firms, regulatory agencies, and as consultants. Many have continued their education at baccalaureate institutions. Targeted populations for this program include recent high school graduates to returning students to post-associate degree students looking for career change.

Learning Outcomes:

- Demonstrate the ability to use appropriate mathematical, computational and graphic-thinking skills needed for environmental engineering technology applications.
- Combine oral, graphical and written communication skills to present and exchange information effectively and communicate design solutions.
- Know of a professional code of ethics describe concepts relating to environmental monitoring, policy, processes and continuous improvement.
- Describe how the concepts of environmental measurements and the design, management and operation of environmental facilities affect evaluation of analysis, policies and decision making.
- Illustrate an ability to think critically and identify, evaluate and solve complex environmental problems; demonstrate technical and provide practical applications in environmental control problem and solutions; and communicate solutions technically and effectively.
- Practice the skills needed to work effectively in teams and as an individual.
- Recognize actions and acts of professionalism that allow them to become informed and participating citizens cognizant of ethics, civic duty and social responsibility.
- Demonstrate lifelong learning and continuous improvement of professional, ethical, and social responsibility.

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*
MATH 2600 - Calculus I *Credits: 4*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
ENV 1010 - Introduction to Environmental Science *Credits: 3*
Elective SBSX - Social / Behavioral Science Course *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Program Courses (43 credits)

ENV 1100 - Environmental Regulations *Credits: 3*
CHEM 1210 - General Chemistry I *Credits: 4*
ENVE 1500 - Geomatics Spatial Analysis *Credits: 3*
BIO 1210 - General Biology I *Credits: 4*
BIO 1220 - General Biology II *Credits: 4*
ENVE 2400 - Hydrology *Credits: 3*
ENVE 2500 - Geomatics *Credits: 4*
ENVE 2600 - Fundamental Measurements and Applications *Credits: 3*
ENVE 2410 - Water Resources Engineering with Lab *Credits: 4*
ENVE 2300 - Long Island Sound Conservation *Credits: 3*

ENVE 2210 - HAZWOPER (Hazardous Waste Operations Emergency Response) *Credits: 3*
ENVE 1700 - Environmental Research Project I *Credits: 1*
ENVE 2700 - Environmental Research Project II *Credits: 1*
ENVE 2701 - Environmental Research Project III *Credits: 1*
ENVE 2702 - Environmental Research Project IV *Credits: 1*
ENVE 2694 - Environmental Engineering Technology Co-op *Credits: 1*

Total Credits: 65-66

Environmental Engineering Technology: Environmental Health & Safety Management Certificate (EHSF-CC)

This certificate enables students to apply their Environmental Health and Safety (EH&S) Management skills in any workplace setting. Environmental occupational health and safety, an important factor in all workplaces and schools, is a set of laws requiring various environmental management and occupational, health, and safety standards to be met. Having an EH&S management certificate affords students the opportunity to obtain work, gain promotions, or continue their education. Many credits in this certificate can be applied towards an Associate of Science degree in Environmental Engineering Technology.

Learning Outcomes:

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

- Apply environmental, safety and health management skills in workplace settings.
- Implement written workplace procedures in the environmental, health and safety fields.
- Describe concepts of workplace safety and environmental management and be able to understand the roles and responsibilities of the EHS professionals and the decision-making process involved in everyday situations.
- Provide guidance in planning and implementing practices that promote safety and prevent workplace accidents.
- Utilize communication and interpersonal skills to establish the respect and authority an EHS professional needs to surmount institutional barriers for employee well-being and environmental protection.
- Recognize the limitations of human capabilities in the workplace.
- Identify workplace hazards, find the means to reform unsafe procedures and behaviors, and establish engineering and management controls to reduce hazards.
- Explain product safety requirements of the marketplace and describe engineering and management techniques to meet them.

Required Courses

ENV 1010 - Introduction to Environmental Science *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

ENG 1010 - Composition *Credits: 3* 3 English Composition

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

ENV 1100 - Environmental Regulations *Credits: 3*

ENVE 1200 - Occupational Safety & Health *Credits: 3*

ENVE 2210 - HAZWOPER (Hazardous Waste Operations Emergency Response) *Credits: 3*

ENVE 2990 - Environmental Issues Seminar *Credits: 3*

Total Credits: 24

Environmental Science: Environmental Biology, AS (EBIO-AS)

The Environmental Biology AS program is intended for students interested in Environmental Biology, Ecology, or a related field. The environmental field is a broad-based area of study and is truly interdisciplinary in nature. The subjects of biology, chemistry and geology are interwoven to provide a full picture of our environment and humanity's impact upon this system. The degree provides students with a foundation in the basic sciences and highlights the field's interdisciplinary nature, with a focus on the life sciences.

The goal of the Environmental Biology program is to prepare students to transfer into a biological environmental science program at a four-year institution. The requirements for the Environmental Biology program allow students to transfer seamlessly to most four-year colleges and to successfully complete their bachelor's degree in Environmental Biology, Ecology, or a related field without loss of credit or time.

Learning Outcomes:

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

- Research and assess the accuracy of information from print, online and media sources and be able to distinguish between scientific fact and media sensationalism.
- Apply the scientific method to environmental problems using both laboratory and field skills to gather, analyze and interpret scientific data.
- Scientifically analyze and critically evaluate local/regional/global environmental problems in terms of ecological principles and development of sustainable solutions.
- Demonstrate knowledge of the interdisciplinary nature of environmental science with the fundamental principles of biology, chemistry, geology, law and public policy.
- Describe the relationship between biotic organisms and the abiotic factors within an ecosystem.
- Demonstrate knowledge gained from scientific investigation by appropriate written, oral and mathematical means as these skills are vital to success as an environmental profession.
- Examine environmental problems and issues as well as establish personal positions on such issues and problems collaboratively.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ENV 1010 - Introduction to Environmental Science *Credits: 3*

Elective SBSX - Social / Behavioral Science Course *Credits: 3* (ECON elective recommended)

Elective ORAX - Oral Communication Course *Credits: 3* (COMM 1301 recommended)

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40 credits)

CSA 1110 - Introduction to Software Applications *Credits: 3*

BIO 1210 - General Biology I *Credits: 4*

BIO 1220 - General Biology II *Credits: 4*

BIO 1750 - Introduction to Marine Science *Credits: 3*

BIO 2350 - Microbiology *Credits: 4*

BIO 2700 - Ecology *Credits: 4*

CHEM 1210 - General Chemistry I *Credits: 4*

CHEM 1220 - General Chemistry II *Credits: 4*

ENV 1100 - Environmental Regulations *Credits: 3*

GEOL 1200 - Introduction to Physical Geology *Credits: 4*

MATH 1200 - Statistics I *Credits: 3*

Total Credits: 61-62

Environmental Science: Environmental Science & Toxicology Certificate (ESTX-CC)

The Environmental Science and Toxicology certificate prepares students for entry-level technician positions in the fields of wastewater management, toxicology, pollution prevention and remediation and/or to continue their studies beyond the certificate to receive a two- or four-year degree. Most of the courses in the Certificate count towards the Environmental Science and Toxicology AS degree.

Learning Outcomes:

- Identify federal, state, and local laws, regulations, and standards affecting environmental science operations
- Apply chemistry, biology, physics, and mathematics to environmental science, toxicology, and forensic science
- Analyze air, water, and soil samples from the field and laboratory for pollutants and toxins
- Identify career options in the environmental science, toxicology, and forensic science fields
- Explain the basic concepts of public health and occupational health and safety

Required Courses

BIO 1210 - General Biology I *Credits: 4*
 CHEM 1210 - General Chemistry I *Credits: 4*
 ENV 1010 - Introduction to Environmental Science *Credits: 3*
 ENV 1010L - Introduction to Environmental Science Lab *Credits: 1*
 MATH 1610 - Precalculus *Credits: 4*
 CHEM 1220 - General Chemistry II *Credits: 4*
 CHEM 2410 - Biochemistry *Credits: 4*
 ENV 2200 - Toxicology *Credits: 3*

Choose one course from the list below (3-4 credits):

- BIO 1220 - General Biology II *Credits: 4*
- BIO 2350 - Microbiology *Credits: 4*
- CHEM 2310 - Organic Chemistry I *Credits: 4*
- CHEM 2320 - Organic Chemistry II *Credits: 4*
- EARTH 1010 - Earth Science *Credits: 3*
- EARTH 1020 - Natural Disasters *Credits: 3*
- ENV 1100 - Environmental Regulations *Credits: 3*
- MATH 2600 - Calculus I *Credits: 4*
- MATH 2610 - Calculus II *Credits: 4*
- PHYS 1201 - General Physics I *Credits: 4*
- PHYS 1202 - General Physics II *Credits: 4*
- PHYS 2201 - Calculus-Based Physics I *Credits: 4*
- PHYS 2202 - Calculus-Based Physics II *Credits: 4*
- WMTR 1001 - Water Treatment and Distribution *Credits: 6*
- WMTR 1002 - Special Topics in Water Treatment *Credits: 3*
- WMTR 1003 - Special Topics in Water Distribution *Credits: 3*

Total Credits: 30-31

Environmental Science: Environmental Science and Toxicology, AS (ESTX-AS)

The Environmental Science and Toxicology program is intended for students interested in areas such as environmental field technician, laboratory technician, regulations, pollution prevention and remediation, solid and hazardous waste, water and wastewater, and public health protection, among others. It offers students a broad educational approach to the many careers available to them in the environmental field and allows for full transfer to a four-year institution.

The above average growth in the number of businesses in the environmental science and toxicology fields has resulted in a high demand for qualified environmental science technicians and environmental technology technicians. This program can be used to meet the recently upgraded requirements for wastewater treatment plant operator licensure by the CT Department of Health Services.

Program Learning Outcomes: Upon successful completion of this degree program, graduates should be able to:

- Understand contemporary environmental issues in the social sciences, humanities, and natural sciences
- Know federal, state, and local laws, regulations, and standards affecting environmental science, toxicology, and forensic science operations
- Apply concepts of chemistry, biology, physics, and mathematics to environmental science, toxicology, and forensic science
- Acquire and analyze air, water, and soil samples for pollutants in the field and laboratory
- Summarize the basic concepts of public health and occupational health and safety
- Use computers for data processing, information management, and research in environmental science, toxicology, and forensic science
- Understand and apply basic concepts of effective oral and written communication and documentation

General Education Courses (21 credits)

ENG 1010 - Composition Credits: 3
 MATH 1200 - Statistics I Credits: 3
 COMM 1301 - Public Speaking Credits: 3
 ENV 1010 - Introduction to Environmental Science Credits: 3
 ECON 1001 - Principles of Macroeconomics Credits: 3
 OR SOC 1001 - Principles of Sociology Credits: 3
 ENG 1020 - Composition II and Literature Credits: 3
 OR ENG 1030 - Composition II and Non-fiction Texts Credits: 3
 CCS 1001 - College & Career Success Credits: 3

Program Courses (40-41 credits)

CENT 1016 - Computer Applications for Technology Credits: 3
 MATH 1610 - Precalculus Credits: 4
 BIO 1210 - General Biology I Credits: 4
 ENV 1010L - Introduction to Environmental Science Lab Credits: 1
 ENV 2200 - Toxicology Credits: 3
 ENV 2295 - Environmental Science and Toxicology Internship Credits: 3
 CHEM 1210 - General Chemistry I Credits: 4
 CHEM 1220 - General Chemistry II Credits: 4
 PHYS 1201 - General Physics I Credits: 4
 CHEM 2410 - Biochemistry Credits: 4
 PHIL 1101 - Ethics Credits: 3

Choose One Restricted Electives (3-4 credits)

- BIO 1220 - General Biology II Credits: 4
- OR BIO 2350 - Microbiology Credits: 4
- OR CENT 1016 - Computer Applications for Technology Credits: 3
- OR EARTH 1010 - Earth Science Credits: 3
- OR EARTH 1020 - Natural Disasters Credits: 3
- OR ENV 1100 - Environmental Regulations Credits: 3
- OR WMTR 1002 - Special Topics in Water Treatment Credits: 3
- OR WMTR 1003 - Special Topics in Water Distribution Credits: 3

Total Credits: 61-62

Environmental Science: Sustainability, AS (SUST-AS)

The Environmental Science: Sustainability program is intended for students looking to acquire jobs or transfer to continue their studies in a variety of fields including geosciences (including hydrology, soil, and agricultural resources), energy resources, and sustainability, among others. The environmental science field has enjoyed rapid growth. Occupational employment projections indicate that job opportunities are increasing for environmental scientists. An increase in local, state and federal laws concerning environmental issues has provided increased opportunity for professionals in this field.

The emerging field of sustainable energy and sustainable resource management is spurring the growth of job opportunities as a result of the ever-increasing awareness to monitor and improve the quality of the environment, to study the effect that human activity has on terrestrial and aquatic systems, and to find ways to restore them.

Growth is also expected to be fueled by demands for waste regulation and for compliance monitoring. As the demand for oil and other fuels continues to change, recognizing the threat of increased pollution, an increasing amount of research is focusing on the development of alternate renewable and non-polluting energy sources.

Learning Outcomes:

Upon successful completion of all Program requirements, graduates will:

- Develop knowledge of the scientific basis for issues affecting the environment and their impact on society as well as the role of sustainable technologies in addressing these issues.
- Understand and be skilled at collecting, analyzing and presenting scientific data by various means including up-to-date computer technologies.
- Be able to use the scientific method for problem solving in biology, chemistry, geology, physics and environmental sciences, and be able to use this skill to address issues related to the environment.
- Research and assess the accuracy of appropriate information sources involving both print literature and electronic sources, including online databases and publications.
- Communicate knowledge and understanding of environmental sciences and related societal issues in appropriate written, oral and mathematical means.
- Demonstrate interrelationships and connections with other subject areas associated with a college-level education.
- Use a wide array of knowledge, principles and skills acquired in laboratory, field and lecture settings for use in transferring to baccalaureate degree program or for use in seeking further training toward a technical degree.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Component.

General Education Courses (22-23 credits)

ENG 1010 - Composition Credits: 3
 MATH 1610 - Precalculus Credits: 4
 Elective ARHX - Arts & Humanities Course Credits: 3-4
 ENV 1010 - Introduction to Environmental Science Credits: 3
 ECON 1002 - Principles of Microeconomics Credits: 3
 COMM 1301 - Public Speaking Credits: 3
 CCS 1001 - College & Career Success Credits: 3

Program Courses (38-39 credits)

GEOL 1200 - Introduction to Physical Geology Credits: 4
 CHEM 1210 - General Chemistry I Credits: 4
 CHEM 1220 - General Chemistry II Credits: 4
 BIO 1720 - General Ecology Credits: 4
 BIO 1210 - General Biology I Credits: 4
 MATH 1201 - Statistics I with Computer Applications Credits: 4
 ENV 1800 - Sustainable Energy and the Environment Credits: 3
 PHYS 1201 - General Physics I Credits: 4
 BIO 1220 - General Biology II Credits: 4
OR PHYS 1202 - General Physics II Credits: 4
 Choose One Restricted Elective (3-4 credits)

- BIO 1220 - General Biology II Credits: 4

- CAD 1010 - Introduction to CAD *Credits: 3*
- CHEM 2310 - Organic Chemistry I *Credits: 4*
- EGR 1110 - Introduction to Engineering *Credits: 3*
- ENG 1020 - Composition II and Literature *Credits: 3*
- ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*
- MATH 2600 - Calculus I *Credits: 4*
- MATH 2610 - Calculus II *Credits: 4*
- OCEN 1010 - Introduction to Oceanography *Credits: 3*
- PHYS 1202 - General Physics II *Credits: 4*

Total Credits: 60-62

Exercise Science Studies - TAP/CSCU Transfer Degree, AA (EXSC-AA-TAP)

The Exercise Science Program is designed to provide fundamental and theoretical knowledge to transfer and succeed in a baccalaureate exercise science program. It also provides the practical skills necessary to assume the role of a health fitness professional in commercial and clinical settings. With an emphasis on exercise physiology and health, the program integrates cutting edge research with fundamental theories of learning and basic clinical skills. This program offers the transfer student a transfer level mathematics course and an increased number of general education courses creating a well-rounded base in order to continue with further education.

Learning Outcomes:

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

- Demonstrate an understanding of human anatomy and physiology, exercise physiology and knowledge in a holistic wellness model that promotes health beyond just the physical aspect.
- Demonstrate sound knowledge and clinical skills needed for health screenings, exercise testing and exercise prescription with a variety of populations.
- Demonstrate an understanding of a variety of public health concerns, including physical activity, nutrition, chronic disease and disability, and human performance.
- Develop leadership, interpersonal, and communication skills, which lead to increased collaboration with a variety of health care professionals in a multidisciplinary approach to wellness.
- Practice sound, prudent, and ethical functions necessary in health fitness and allied health professions.
- Develop an understanding of the skills, knowledge, abilities and continued education needed to progress in the Exercise Science and health-related fields.

Career opportunities available in Human Performance Centers, Personal Training, Wellness Centers, Rehabilitation Centers, Community Centers

Framework Courses (32-33 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1200 - Statistics I *Credits: 3*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
 BIO 2111 - Anatomy & Physiology I *Credits: 4*
 PSY 1011 - General Psychology I *Credits: 3*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 COMM 1301 - Public Speaking *Credits: 3*
 Elective WRIX - Written Communication II Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (28 credits)

EXSC 1001 - Introduction to Exercise Science *Credits: 3*
 EXSC 2010 - Sports Nutrition *Credits: 3*
 OR EXSC 2031 - Exercise Programming for Clinical Populations *Credits: 3*
 OR HPE 2040 - Introduction to Athletic Training *Credits: 3*
 EXSC 2030 - Exercise Testing and Program Design *Credits: 4*
 EXSC 2032 - Aspects of Strength and Conditioning *Credits: 3*
 EXSC 2040 - Exercise Physiology with Lab *Credits: 4*
 EXSC 2050 - Kinesiology with Lab *Credits: 4*
 BIO 2112 - Anatomy & Physiology II *Credits: 4*
 EXSC 2095 - Field Placement in Exercise Science *Credits: 3*

Total Credits: 60-61

Exercise Science, AS (EXSC-AS)

The Exercise Science Program is designed to provide fundamental and theoretical knowledge as well as practical skills necessary to assume the role of a health fitness professional in commercial and clinical settings. With an emphasis on exercise physiology and health, the program integrates cutting edge research with fundamental theories of learning and basic clinical skills. Graduates of the program will be prepared for a career in health fitness and will demonstrate sound communication skills, lifelong learning, safe and effective care, within their legal scope, and compassion for those they work with.

Learning Outcomes:

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

- Demonstrate an understanding of human anatomy and physiology, exercise physiology and knowledge in a holistic wellness model that promotes health beyond just the physical aspect.
- Demonstrate sound knowledge and clinical skills needed for health screenings, exercise testing and exercise prescription with a variety of populations.
- Demonstrate an understanding of a variety of public health concerns including physical inactivity, nutrition, chronic disease and disability and human performance.
- Develop leadership, interpersonal, and communication skills which lead to increased collaboration with a variety of health care professionals in a multidisciplinary approach to wellness.
- Practice sound, prudent, and ethical functions necessary in health fitness and allied health professions.

Career Opportunities are available in:

- Human performance Centers
- Personal Training
- Wellness Centers
- Rehabilitation Centers
- Corporate Wellness Centers
- Community Centers

General Education Courses (22-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (38 credits)

EXSC 1001 - Introduction to Exercise Science *Credits: 3*

EXSC 2030 - Exercise Testing and Program Design *Credits: 4*

EXSC 2031 - Exercise Programming for Clinical Populations *Credits: 3*

EXSC 2032 - Aspects of Strength and Conditioning *Credits: 3*

EXSC 2040 - Exercise Physiology with Lab *Credits: 4*

EXSC 2050 - Kinesiology with Lab *Credits: 4*

EXSC 2095 - Field Placement in Exercise Science *Credits: 3*

BIO 1011 - Introduction to Nutrition *Credits: 3*

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2112 - Anatomy & Physiology II *Credits: 4*

ENG 1020 - Composition II and Literature *Credits: 3*

Total Credits: 60-62

Fashion Merchandising and Retail Management Certificate (FMRM-CC)

The certificate program is designed to offer a concentrated study in fashion merchandising and retail management to prepare for entry work in these industries or to build upon an existing degree to provide additional career opportunities. Students will be able to apply all the credits earned towards an AS degree in Fashion Merchandising and Retail Management.

Learning Outcomes:

- Identify core concepts of fashion merchandising and retail management and their role in society and the global economy,
- Describe the legal and ethical environments of the fashion and retail industries,
- Demonstrate information literacy through research skills and the use of technology,
- Apply effective written and oral communications skills to business situations,
- Identify jobs and career paths in the fashion and retail industries.

Required Courses

BENT 2180 - Entrepreneurship *Credits: 3*
BMKT 1003 - Principles of Retailing *Credits: 3*
BMKT 2010 - Principles of Marketing *Credits: 3*
BMKT 2015 - Principles of eBusiness *Credits: 3*
BMKT 2055 - Fashion Analysis *Credits: 3*
BMKT 2057 - Textiles *Credits: 3*
BMKT 2410 - Principles of Advertising *Credits: 3*

Total Credits: 21

Fashion Merchandising and Retail Management, AS (FMRM-AS)

Fashion and retailing are exciting and vital industries in our economy. This degree program will focus on the business side of the fashion industry, which included retailing, marketing, manufacturing, visual merchandising, consumer behavior, fashion cycles, and store planning. Students will study the complete supply chain from materials to manufacturing and buying to promotion and selling of fashion and related products. This program prepares students for careers with retail, wholesale, and manufacturing organizations in buying, merchandising, fashion coordination, sales, and sales promotion. Practical training is provided through field work experiences, including New York City. The program courses may be transferred to bachelor's degree programs.

Learning Outcomes:

- Identify core concepts of retail management and fashion merchandising and their roles in society and the global economy,
- Demonstrate information literacy through research skills and the use of technology,
- Demonstrate analytical, problem-solving, and decision-making skills applicable to retail management and fashion merchandising,
- Describe the legal and ethical environments of the fashion and retail industries.
- Apply effective written and oral communication skills to business situations,
- Examine career opportunities in the global fashion and retail industries.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1001 - Quantitative Literacy *Credits: 3* (or higher - college level)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

PSY 1011 - General Psychology I *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

Program Courses (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

BMKT 1003 - Principles of Retailing *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BMKT 2015 - Principles of eBusiness *Credits: 3*

BMKT 2200 - Sales *Credits: 3*

BMKT 2410 - Principles of Advertising *Credits: 3*

BMKT 2055 - Fashion Analysis *Credits: 3*

BMKT 2057 - Textiles *Credits: 3*

BMKT 2195 - Field Experience I *Credits: 3*

BMKT 2295 - Field Experience II *Credits: 3*

CSA 1110 - Introduction to Software Applications *Credits: 3*

OR CSA 1111 - Spreadsheet Applications *Credits: 3*

Business Elective - Any 2 courses in ACCT, BENT, BFIN, BMGT, BMKT, BUSN, ECON, CSA, HOSP 2244 *Credits: 3*

Total Credits: 60-62

Fire Technology and Administration, AS (FTAD-AS)

The program in Fire Technology and Administration trains and educates competent leaders in fire protection, prevention, and administration. It also provides training and education for insurance companies and industries involved in fire prevention and protection. Fire Technologists work in career and volunteer fire departments; local, state, and federal government agencies; industry, architectural and construction firms, and insurance organizations. They must recognize the need for fire prevention activities, the necessity of educating both children and adults in fire safety, and the importance of enforcing fire prevention codes. Because fire technologists encounter a broad spectrum of problems and must be well versed in many subjects, the work of the fire technologist is seldom routine.

The Associate in Science degree in Fire Technology and Administration aligns with the National Fire Academy (NFA) standardized fire science courses.

Learning Outcomes:

Upon successful completion of all program requirements, graduates of the program will:

- Understand fire protection and emergency services; and career opportunities in fire protection and related fields.
- Explain theories and fundamentals of how and why fires start, spread, and are controlled including how building construction and pre-planning relates to firefighter and life safety..
- Describe the basic principles and history related to the national firefighter life safety initiatives.
- Describe inspection practices and procedures and identify and describe the professional qualifications for fire marshal, plan examiner, fire inspector, fire and life safety educator, and fire investigator
- Discuss the basic concepts of occupational health and safety as it relates to emergency service organizations.
- Explain the benefits of fire protection systems in various types of structures

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1002 or MATH 1010 or higher *Credits: 3-4*

PHIL 1101 - Ethics *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

FTAD 1012 - Introduction to Fire Technology *Credits: 3*

FTAD 1016 - Building Construction *Credits: 3*

FTAD 1018 - Fire Prevention & Inspection *Credits: 3*

FTAD 1022 - Fire Behavior & Combustion *Credits: 3*

FTAD 1026 - Safety & Survival *Credits: 3*

FTAD 2010 - Water Supply & Hydraulics *Credits: 3*

FTAD 2012 - Legal Aspects of Emergency Services *Credits: 3*

FTAD 2016 - Municipal Fire Administration *Credits: 3*

FTAD 2017 - Occupational Safety & Health Administration *Credits: 3*

FTAD 2109 - Fire Investigation I *Credits: 3*

FTAD 2207 - Fire Protection Systems *Credits: 3*

FTAD 2209 - Fire Investigation II *Credits: 3*

FTAD 2300 - Strategy & Tactics *Credits: 3*

Total Credits: 61

Firefighter 1 & 2 Certificate (F12C-CC)

This Certificate was developed in collaboration with local fire agencies to provide career pathways that meet the needs of emergency response and fire service in an outside of New Haven County. This program offers high quality, diverse learning and training opportunities to prepare students for the industry. Fire Department applicants who have post-secondary firefighting education have a clear advantage over other candidates. This technical certificate program will help graduates secure employment in the firefighter and emergency responder profession.

CT State CC students are prepared as first responders in a fire, traffic accident or medical emergency. Training includes CPAT (Candidate Physical Ability Test), FFI (Firefighter I), FFII (Firefighter II), and EMT, (Emergency Medical Technician), as most fire departments require prospective candidates to have certification as an EMT (Emergency Medical Technician). This program is designed to incorporate the orientation to fire service with the necessary theory and hands-on applications needed to become a certified Fire Fighter. This program qualifies students to take the state certification exam with the Bureau of Fire Standards and Training (which includes both written and practical skills) to become a Certified Fire Fighter in the State of Connecticut. An association or volunteer status is needed to have full certification. Continued population growth will increase the number of emergency calls requiring firefighter responses. Many situations that firefighters respond to are medical-rather than fire-emergencies, and the aging population will lead to an increased demand for emergency responders.

Learning Outcomes:

Upon successful completion of all program requirements, graduates will:

- Understand the essentials of firefighting including fire department operations, firefighting equipment and safety, chemistry of fire, techniques of firefighting, and utilization of equipment in fire suppression.
- Understand the Candidate Physical Ability test (CPAT) used in the selection of firefighters in participating fire agencies throughout the State of Connecticut.
- Demonstrate the physical ability to perform job tasks related to firefighting.
- Prepare for the national certifying exam for EMT and the State Practical Examination for EMT
- Explain fire department safety standards and principles of fire science.
- Prepare for civil service exams given to prospective firefighters.
- Understand fire apparatus and pumps, fire streams, fire service pressure calculations, and fixed fire extinguishing systems such as sprinkler and standpipe operations.

There are prerequisites, medical, PPE (Personal Protective Equipment), and physical requirements required for program enrollment, as well as mandatory attendance at an information session. Students must either test above MAT* 085 and ENG* 066, or complete these courses with a "C" or better prior to entering the program. Due to practical training, some courses in this program take place at the New Haven Regional Fire Academy. Students are required to wear a uniform in all classes and have structural firefighting Personal Protective Equipment (required PPE gear is Turnout and SCBA). Each student must rent or own the required PPE gear.

Required Courses

- EMT 1000 - Emergency Medical Technician *Credits: 6*
- FTAD 1000 - Fitness & Health for Firefighters *Credits: 3*
- FTAD 1001 - Fundamentals of Firefighting I *Credits: 9*
- FTAD 1101 - Fundamentals of Firefighting II *Credits: 3*
- FTAD 1002 - Civil Service Test Preparation *Credits: 1*
- FTAD 1010 - Fire Ground Hydraulics *Credits: 3*

Total Credits: 25

Foundations in Digital Analytics Certificate (DGFN-CC)

The Foundations in Digital Analytics Certificate provides students a foundation in data basics, probability and statistics, data analytics, data manipulation, data visualization and communication, and data ethics and security, while supporting students to acquire industry-informed and aligned digital and analytical skills necessary to succeed in a wide array of career opportunities. The certificate's learning outcomes are based on a national framework endorsed by Fortune 500 firms across the country. Students who complete the certificate will have the opportunity to earn industry-recognized badges in four domains: data analytics, data validations, data visualization, and data ethics and security. Participating students will be eligible for industry experience opportunities, such as participation in mentorship programs or capstone projects, to provide the student real-world industry experience. The certificate will incorporate industry-approved learning opportunities such as case studies and projects to build students' digital analytics skills for in-demand work.

Learning Outcomes:

- Explain the importance of the uses of data, data ethics, and data
- Implement foundational concepts of data manipulation, data analysis, data visualization, and
- Utilize various technologies and programming languages to organize, analyze, explore, and visualize
- Apply statistical techniques to data to make sense of data and solve problems
- Demonstrate the ability to apply all data-related concepts through case studies and projects.

Required Courses

MATH 1200 - Statistics I *Credits: 3*

DTS 2201 - Programming in Data Science *Credits: 3*

DTS 2215 - Data Ethics and Security *Credits: 3*

DTS 2258 - Data Journalism *Credits: 3*

Total Credits: 12

French Studies - TAP/CSCU Transfer Degree, AA (FREN-AA-TAP)

The CSCU Pathway Transfer Degree in French Studies, A.A. prepares students to continue their education at any Connecticut State University (CSU) leading to a baccalaureate degree in French. It is designed to strengthen and develop skills in French expression: critical reading, writing, thinking, listening, speaking, and research through the study of language, literature, culture, and related disciplines.

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

- Demonstrate listening proficiency in the target language at the Intermediate Low level as per the American Council on the Teaching of Foreign Languages (ACTFL) guidelines*.
- Demonstrate speaking proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate reading proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate writing proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate analytic, interpretative, and critical thinking skills in regard to language and the communication process.
- Recognize that understanding other cultures will enrich one's own life and result in lifelong learning.
- Apply critical thinking skills to the understanding of cultural differences and similarities.

* <https://www.actfl.org/publications/guidelines-and-manuals/actfl-proficiency-guidelines-2012>

This program is transfer focused. It is designed to prepare students with an interest in French studies to transfer to a four-year college or university at the junior level in pursuit of a bachelor's degree.

With this degree students will be able to transfer to the following majors/minors:

- At Central Connecticut State University: French B.A., French B.S.ED. (7-12), French minor
- At Eastern Connecticut State University: French minor
- At Southern Connecticut State University: French B.A., French 7-12, B.S., French minor

Framework Courses (31-34 credits)

At least one course with a lab must be taken in either Scientific Reasoning or Scientific Knowledge and Understanding.

ENG 1010 - Composition *Credits: 3*
 Elective QUAX - Quantitative Reasoning Course *Credits: 3-4*
 Elective WRIX - Written Communication II Course *Credits: 3*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 Elective SCRX - Scientific Reasoning Course *Credits: 3-4*
 Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 COMM 1301 - Public Speaking *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30-32 credits)

FREN 1011 - Elementary French I *Credits: 4*
 FREN 1012 - Elementary French II *Credits: 4*
 FREN 2011 - Intermediate French I *Credits: 4*
 FREN 2012 - Intermediate French II *Credits: 4*
 Elective GLKY - Global Knowledge Course *Credits: 3*
 (COMM 1305, GEOG 1010, or HUM 1019 recommended)
 Elective CRTY - Creativity Course *Credits: 3*
 Unrestricted Electives - Students who begin French at a higher level than FREN 1011 will receive additional unrestricted electives. They should consider taking additional upper-level French courses. *Credits: 8-20*

Total Credits: 61-64

Game Design, AS (GMDN-AS)

The purpose of the Computer Game Design program is to provide students who are interested in a career in this industry comprehensive instruction in all aspects of computer game design and production. The specific program objectives include:

- To provide instruction in all production aspects of game design and production including animation, sound design, game level design, 3D modeling, and computer graphics.
- To connect the media creation aspects of game design with the industry standard game engine tools necessary to produce functioning gameplay.
- To integrate creative thinking and technical skills in the development of original gaming concepts.
- To offer an overview of the games industry including tracking industry trends, preparation of production proposals and budgets, and the development and responsibilities of production teams.

The program is structured to equip students with a sound foundation in technical skills, design concepts, aesthetics, terminology and vocabulary, and to provide an awareness of the application of creative and critical thinking in the use of technical knowledge. A strong emphasis has been placed on the use of the computer as a production and compositing tool.

Learning Outcomes:

Upon successful completion of all program requirements, graduates of the Computer Game Design program will:

- Meet educational standards for entry-level and intermediate level employment in the area of game design and development.
- Demonstrate an understanding of the production pipeline for game design & development (concept, storytelling, character development, level design, programming decisions, network distribution, etc.).
- Integrate creative/artistic skills (drawing, animation, storytelling, level design, etc.) with the industry standard technology and tools necessary for the development of interactive media.
- Demonstrate the software skills necessary for game development and for potential employment in the game development field.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

The Game Design A.S. degree is transferable to new programs in some of the CT State Universities, and to several colleges and Universities, both national and international. This would include Becker College, Hampshire College, Quinnipiac University, Savannah College of Art and Design (SCAD), The Academy of Art University, Fitchburg State University and others.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

GAMD 1009 - Introduction to Games *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

GAMD 1013 - Drawing for Animation and Games *Credits: 3*

COMM 1604 - Video Filmmaking *Credits: 3*

GAMD 2001 - World Building *Credits: 3*

GAMD 2020 - Visual Storytelling & Sequential Art *Credits: 3*

GAMD 2024 - Digital Painting *Credits: 3*

GAMD 2063 - Animation Foundations *Credits: 3*

GAMD 2075 - 2D Game Level Design *Credits: 3*

GAMD 2071 - 3D Modeling I *Credits: 3*

GAMD 2072 - Advanced 3D Concepts *Credits: 3*

GAMD 2176 - 3D Animation and Rigging *Credits: 3*

GAMD 2167 - 2D Animation *Credits: 3*

GAMD 2177 - 3D Game Level Design *Credits: 3*

GAMD 2090 - Game Studio Capstone *Credits: 3*

Total Credits: 60-62

General Studies, AS (GNST-AS-LEG)

General Studies is a program for students who are adult learners, veterans, students who transfer to the Connecticut State Community College, students who are exploring career and academic options, and lifelong learners. The General Studies Program is well designed for students who seek a two- year degree for personal or career advancement.

The General Studies Program provides students flexibility in degree completion and maximizes the number of credits that are transferred to the Connecticut Community College. This program is designed to ensure that students develop strong communication skills, increase literacy and math skills, develop critical thinking and problem solving skills in the sciences, social sciences, and the arts and humanities. General Studies students gain foundational knowledge in a variety of academic disciplines. The General Studies degree program is designed to give students the opportunity to explore knowledge from multiple perspectives. Students are challenged to become intellectually curious, aesthetically aware, and critically perceptive. The program gives students the flexibility to adapt to the changing needs of the workplace and the foundation necessary for lifelong learning and personal growth.

The general education curriculum and career education are dynamic and interactive components. They enrich each other by helping students to make career choices in keeping with their understanding of themselves and their world. Together, they provide the skills and perspectives that make possible the dignity of work and social contribution. They cultivate a framework of meaning, value, ethical purpose, and commitment that enrich every aspect of life. They foster an attitude of critical inquiry, curiosity, openness and wonder that enables a spirit of lifelong learning.

Learning Outcomes:

- Apply skills necessary to think critically, write clearly, argue persuasively, and problem-solve effectively
- Demonstrate competence with current computer software applications used in the workforce.
- Demonstrate college level writing, oral communication, and critical thinking
- Recognize broader historical, cultural, global, and scientific perspectives
- Collaborate with culturally and intellectually diverse peoples
- Apply traditional research skills and digital technology to access, evaluate, and apply information ethically
- Define and analyze both personal and social ethical issues; understand the consequences of a decision or a course of action.

The General Studies program also offers flexibility as a basis for further study or career paths; its primary purpose is not for transfer. Students planning to transfer to a bachelor's degree-granting program should consider one of the Associate Degrees in Liberal Arts and Science, which is carefully designed to satisfy transfer requirements while offering students flexibility and variety in course work.

General Education Courses (21-24 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1000 or above *Credits: 3-4 (MATH 1100 recommended)*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 Elective SCRX - Scientific Reasoning Course *Credits: 3-4*
OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39-42 credits)

General Studies students must complete 6 credits at the 2000 course level.

Elective WRIX - Written Communication II Course *Credits: 3*
 Art & Humanities - Choose any 2 courses 1000 level or above *Credits: 6-8*
 Social / Behavioral Science - Choose any 2 courses 1000 level or above *Credits: 6*
 Elective SCI - Science Elective *Credits: 3-4*
 PHIL 1101 - Ethics *Credits: 3*
OR PHIL 1012 - Bioethics *Credits: 3*
 CIS 1001 - Introduction to Computers *Credits: 3*
OR CSA 1110 - Introduction to Software Applications *Credits: 3*
OR CSA 2113 - Advanced Applications *Credits: 3*
 Open Electives - Course 1000 or above *Credits: 15*
No more than fifteen credit hours may be completed from any one subject area. Courses taken to satisfy the general education core requirements will not be counted in the calculation of the fifteen hours.

Total Credits: 60-66

Geography - TAP/CSCU Transfer Degree, AA (GEOG-AA-TAP)

Students interested in careers in geography, urban planning, earth and environmental studies, tourism, international relations, digital data and mapping, and any form of global studies should consider this program. The Geography Studies, Associate in Arts degree provides flexibility and will allow a student to pursue a career requiring an associate degree or transfer to a four-year institution to pursue a bachelor's degree in geography, geography-related fields, or almost any other liberal arts program.

Learning Outcomes:

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

- Demonstrate an understanding of the basic concepts of physical and human geography and the methods of critical analysis geographer's use.
- Comprehend how geographers use spatial tools (maps, statistics, etc.) to help analyze and assess global activities.
- Demonstrate an understanding of the importance of spatial analysis, and how different fields within geography illustrate the *interdependence of global systems*.
- Apply basic knowledge and research skills that are sufficient to allow one to pursue a Bachelor's degree in geography or an associated field, and/or find employment in a geography-related field that requires an Associate degree.

This program is transfer focused. It is designed to prepare students with an interest in geography, urban planning, earth and environmental issues, tourism, international relations, digital data and mapping, and any form of global studies to transfer to a four-year college or university in pursuit of a bachelor's degree.

With this degree students will be able to transfer to the following majors:

At Central Connecticut State University:

Geography with Specialization in Environmental Geography, B.A.
 Geography with Specialization in General/Regional Geography, B.A.
 Geography with Specialization in Geographic Information Science, B.A.
 Geography with Specialization in Planning, B.A.
 Geography with Specialization in Tourism, B.A.

At Southern Connecticut State University:

Geography, B.A.
 Geography - Concentration: Geographic Information Science and Technology, B.S.

Framework Courses (30-34 credits)

ENG 1010 - Composition Credits: 3
 MATH 1100 or higher Credits: 3-4
 Elective ARHX - Arts & Humanities Course Credits: 3-4
 Elective SCRX - Scientific Reasoning Course Credits: 3-4
 Elective SBSX - Social / Behavioral Science Course Credits: 3
 Elective WRIX - Written Communication II Course Credits: 3
 Elective SCKX - Scientific Knowledge Course Credits: 3-4
 Elective HISX - Historical Knowledge Course Credits: 3
 Elective ORAX - Oral Communication Course Credits: 3
 CCS 1001 - College & Career Success Credits: 3

Pathway Courses (30 credits)

Elective CRTY - Creativity Course Credits: 3
 GEOG 1000 - Introduction to Geography Credits: 3
 GEOG 1010 - World Regional Geography Credits: 3
 GEOG 1020 - Introduction to Human Geography Credits: 3
 GEOG 2900 - Geography and Tourism Development Credits: 3 (*is strongly recommended if you are planning to pursue Specialization in Tourism at CCSU, otherwise an Unrestricted Elective may be substituted for this requirement*).
 Electives

- It is recommended students select up to 9 credits of Unrestricted Electives in a single discipline/subject based upon your field of interest in geography. These courses can be used to complete 50% of the minor requirement for all CCSU Geography degrees or can be used to begin a minor or second major at SCSU. Some suggested disciplines include ANTH, EARTH, ECO, ENVS, GEOG, GEOL, HIST, MATH, POLS, CSA, CSC, CST. 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 at least 9 of those minor credits at Central. CCSU allows you to major *and* minor in Geography as long as your minor is in a different specialization from the major.
- For students planning on attending ECSU or WCSU, choose any 9 credits of unrestricted electives.
- Students are encouraged to meet with Guided Pathways Advisor to determine which courses to select.

Credits: 9

Remaining Unrestricted Electives

- Students are free to choose any courses at or above 1000-level to complete unrestricted electives, although they may need to use these credits to take courses that prepare for required courses in the degree program. They should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern and Western Connecticut State Universities. They can also complete other General Education requirements for CCSU, SCSU, WCSU, and COSC-but not ECSU. Students are encouraged to meet with their Guided Pathways Advisor to determine which courses to select.
- *Credits: 6-9*

Total Credits: 60-64

Graphic Design, AS (GRPH-AS)

The purpose of the Graphic Design Associate Degree program is:

To provide a graphic design **terminal or transfer** program in the area of graphic design, digital media, computer graphics and advertising;

- to offer a degree program for those considering an entry-level position in related graphic design fields; and
- to provide greater technical knowledge and awareness of the creative visual arts to the community. The program is structured to equip students with a sound foundation in technical skills, graphic design concepts, aesthetics, terminology and vocabulary, and to provide an awareness of the application of acquired technical knowledge. Computer use will be an integral part of the program.

This degree provides the Graphic Design student with a broad, art-based degree primarily for transfer with fundamental skills developed in 2D, 3D and time-based studios. It provides students with a Graphic Design track to 4-year university programs with a broad and foundational art and design background.

In addition to the general Graphic Design degree, students may choose Graphic Design :Design & Illustration or Graphic Design: Digital Media/Web Design

Program Learning Outcomes:

Upon successful completion of all Graphic Design degree program requirements, graduates will:

- Demonstrate an understanding and appreciation of graphic design as a form of communication and art.
- Develop an ability to use design processes and principles to create visual products that convey a specific message to a targeted audience.
- Integrate creative thinking skills and strategies and use problem-solving techniques across a wide range of media.
- Communicate an understanding of how creative processes and skills are integrated with printing and other reproduction processes found in the graphic design field.
- Demonstrate knowledge of new technologies such as computer graphics that continue to evolve into important production tools.
- Identify the varied career paths within the graphics industry including, but not limited to, art direction, illustration, project design, production art, graphic design and media direction.
- Develop a portfolio of work reflecting knowledge, techniques, and creativity gained during the student's course of study.

In addition to the Graphic Design A.S. program learning outcomes students will:

- Demonstrate knowledge and skill in the application of the Principles of Design, Elements of Art, Visual Literacy and as an option, gain industry experience through internship.
- Integrate skills, techniques, and the safe use of materials and equipment necessary for studio art creation. Combine an understanding of art, design concepts, critical thinking, and problem solving in order to apply these skills to art processes using a variety of media.
- Communicate and critique art and concepts using specific art vocabulary.
- Apply a strong fine arts foundation and high quality, relevant coursework in preparation for career or transfer.
- Evaluate and demonstrate a historical, cross-cultural appreciation and awareness of the field of visual art. Develop an understanding of the principles and elements of two-dimensional and three-dimensional design and their applications to various studio disciplines.

The Graphic Design A.S. transfers to 4-year State Universities and private 4-year Art Schools in-state such as the Hartford Art School, and out of state, Mass College of Art, Springfield College, SCAD. Students may enroll in art and graphic design courses full- or part-time. There are no requirements or prerequisites (other than individual course prerequisites) for students wishing to take courses part-time or as electives for other programs. Graphic design/fine arts faculty members are available for consultation with students who wish to enroll in the program and, thereafter, for course selection and transfer information.

Graphic Design General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

Arts & Humanities Elective: ARTH 1012 preferred or choose from ARTH 1001, ARTH 1002, ARTH 1003, or ART 1060 *Credits: 3*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Graphic Design Program Core (27 credits)

GRA 1501 - Graphic Design I *Credits: 3*

ART 1110 - Drawing I *Credits: 3*

DGA 1101 - Introduction to Computer Graphics *Credits: 3*

OR GRA 2300 - Digital Imaging I *Credits: 3*

ART 1250 - Color Theory *Credits: 3*

OR ART 1210 - Two-Dimensional Design *Credits: 3*

GRA 2001 - Typography & Design I *Credits: 3*

OR GRA 2201 - Illustration I *Credits: 3*

OR ART 1120 - Drawing II *Credits: 3*

GRA 2401 - Digital Page Design *Credits: 3*

OR GRA 2502 - Graphic Design II *Credits: 3*

DGA 2101 - Advanced Computer Graphics *Credits: 3*

OR GRA 2301 - Digital Imaging II *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

ART 1810 - Digital Video Art I *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

OR COMM 1604 - Video Filmmaking *Credits: 3*

ART 2094 - Cooperative Education *Credits: 3*

OR GRA 2095 - Graphic Design Internship *Credits: 3*

OR GRA 2090 - Graphic Design Capstone *Credits: 3*

OR Elective ART/DGA/GRA - 2000 Level Studio Elective *Credits: 3*

OR ART 2090 - Portfolio Preparation I *Credits: 1-3*

OR DGA 2098 - Special Topics: Graphic Design *Credits: 3*

Studio Electives (12 credits)

2D Studio Elective - Choose 2

- ART 2090 - Portfolio Preparation I *Credits: 1-3*
- ART 1450 - Digital Photography I *Credits: 3*
- ART 1510 - Painting I *Credits: 3*
- ART 1550 - Watercolor I *Credits: 3*
- ART 1770 - Printmaking I *Credits: 3*
- ART 2810 - Digital Painting & Drawing *Credits: 3*
- ART 1250 - Color Theory *Credits: 3*
- ART 1120 - Drawing II *Credits: 3*
- ART 1130 - Figure Drawing I *Credits: 3*
- ART 1210 - Two-Dimensional Design *Credits: 3*
- GRA 2600 - Web Design *Credits: 3*
- GRA 2090 - Graphic Design Capstone *Credits: 3*
- GRA 2001 - Typography & Design I *Credits: 3*
- GRA 2201 - Illustration I *Credits: 3*
- GRA 2301 - Digital Imaging II *Credits: 3*
- **OR** DGA 2101 - Advanced Computer Graphics *Credits: 3*
- GRA 2306 - Digital Illustration *Credits: 3*

3D Studio Elective - Choose 1

- ART 1220 - Three-Dimensional Design *Credits: 3*
- GRA 2705 - 3D Computer Modeling *Credits: 3*

Time-Based Studio Elective - Choose 1

- ART 1810 - Digital Video Art I *Credits: 3*
- ART 1880 - Animation Fundamentals *Credits: 3*
- COMM 1604 - Video Filmmaking *Credits: 3*
- DGA 2507 - Motion Graphics and Effects *Credits: 3*

Total Credits: 60 - 63

Directed Electives are to be selected in consultation with faculty advisor and must meet stated contact hour requirement. See lists of electives offered by campus.

Graphic Design: Design & Illustration, AS (GRPH-AS-DIL)

The purpose of the Graphic Design Associate Degree program is:

To provide a graphic design **terminal or transfer** program in the area of graphic design, digital media, computer graphics and advertising;

- to offer a degree program for those considering an entry-level position in related graphic design fields; and
- to provide greater technical knowledge and awareness of the creative visual arts to the community. The program is structured to equip students with a sound foundation in technical skills, graphic design concepts, aesthetics, terminology and vocabulary, and to provide an awareness of the application of acquired technical knowledge. Computer use will be an integral part of the program.

Design & Illustration Option:

Illustration is a parallel field to Graphic Design and many designers are also illustrators. This option provides students with project-based, hands-on and digital classes in Illustration, drawing and painting to lay the foundation for transfer or career opportunities in Illustrating for design. It provides Graphic Design students an Illustration track to a 4-year transfer degree and/or career in illustration, with an emphasis on design.

Program Learning Outcomes:

Upon successful completion of all Graphic Design degree program requirements, graduates will:

- Demonstrate an understanding and appreciation of graphic design as a form of communication and art.
- Develop an ability to use design processes and principles to create visual products that convey a specific message to a targeted audience.
- Integrate creative thinking skills and strategies and use problem-solving techniques across a wide range of media.
- Communicate an understanding of how creative processes and skills are integrated with printing and other reproduction processes found in the graphic design field.
- Demonstrate knowledge of new technologies such as computer graphics that continue to evolve into important production tools.
- Identify the varied career paths within the graphics industry including, but not limited to, art direction, illustration, project design, production art, graphic design and media direction.
- Develop a portfolio of work reflecting knowledge, techniques, and creativity gained during the student's course of study.
- Demonstrate knowledge and skill in the application of the Principles of Design, Elements of Art, Visual Literacy and as an option, gain industry experience through internship.

Design & Illustration Learning Outcomes:

In addition to the Graphic Design A.S. program learning outcomes students will:

- Become competent in a variety of artistic and digital media. Develop the ability to identify, analyze, and solve design problems.
- Obtain an understanding of the aesthetics of illustration and of the history and current state of design. Become proficient in the selection and use of relevant technologies and computer software in illustration. Ability to use available software and non-digital processes to sketch, model, and produce an illustration.
- Design and develop an illustration from sketch to mockup to finished process.
- Become proficient in presenting work as well as discussing and constructively critiquing the work of others.

The Graphic Design A.S. transfers to 4-year State Universities and private 4-year Art Schools in-state such as the Hartford Art School, and out of state, Mass College of Art, Springfield College, SCAD. Students may enroll in art and graphic design courses full- or part-time. There are no requirements or prerequisites (other than individual course prerequisites) for students wishing to take courses part-time or as electives for other programs. Graphic design/fine arts faculty members are available for consultation with students who wish to enroll in the program and, thereafter, for course selection and transfer information.

Graphic Design General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

Arts & Humanities Elective: ARTH 1012 preferred or choose from ARTH 1001, ARTH 1002, ARTH 1003, or ART 1060 *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
Elective SBSX - Social / Behavioral Science Course *Credits: 3*
OR Elective HISX - Historical Knowledge Course *Credits: 3*
Elective ORAX - Oral Communication Course *Credits: 3*
OR Elective WRIX - Written Communication II Course *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Graphic Design Program Core (27 credits)

GRA 1501 - Graphic Design I *Credits: 3*
ART 1110 - Drawing I *Credits: 3*
DGA 1101 - Introduction to Computer Graphics *Credits: 3*
OR GRA 2300 - Digital Imaging I *Credits: 3*
ART 1250 - Color Theory *Credits: 3*
OR ART 1210 - Two-Dimensional Design *Credits: 3*
GRA 2001 - Typography & Design I *Credits: 3*
OR GRA 2201 - Illustration I *Credits: 3*
OR ART 1120 - Drawing II *Credits: 3*
GRA 2401 - Digital Page Design *Credits: 3*
OR GRA 2502 - Graphic Design II *Credits: 3*
DGA 2101 - Advanced Computer Graphics *Credits: 3*
OR GRA 2301 - Digital Imaging II *Credits: 3*
OR ART 1450 - Digital Photography I *Credits: 3*
ART 1810 - Digital Video Art I *Credits: 3*
OR ART 1450 - Digital Photography I *Credits: 3*
OR COMM 1604 - Video Filmmaking *Credits: 3*
ART 2094 - Cooperative Education *Credits: 3*
OR GRA 2095 - Graphic Design Internship *Credits: 3*
OR GRA 2090 - Graphic Design Capstone *Credits: 3*
OR Elective ART/DGA/GRA - 2000 Level Studio Elective *Credits: 3*
OR ART 2090 - Portfolio Preparation I *Credits: 1-3*
OR DGA 2098 - Special Topics: Graphic Design *Credits: 3*

Design & Illustration Electives (12 credits)

Choose 4 courses:

- ART 1120 - Drawing II *Credits: 3*
- ART 1130 - Figure Drawing I *Credits: 3*
- ART 1210 - Two-Dimensional Design *Credits: 3*
- **OR** ART 1220 - Three-Dimensional Design *Credits: 3*
- ART 1510 - Painting I *Credits: 3*
- **OR** ART 1550 - Watercolor I *Credits: 3*
- ART 1770 - Printmaking I *Credits: 3*
- ART 2810 - Digital Painting & Drawing *Credits: 3*
- ART 2090 - Portfolio Preparation I *Credits: 1-3*
- **OR** GRA 2098 - Special Topics in Graphic Design *Credits: 3*
- GRA 2201 - Illustration I *Credits: 3 preferred in this track*
- GRA 2202 - Illustration II *Credits: 3 preferred in this track*
- GRA 2306 - Digital Illustration *Credits: 3*
- GRA 2705 - 3D Computer Modeling *Credits: 3*
- GRA 2090 - Graphic Design Capstone *Credits: 3*

Total Credits: 60 - 63

Graphic Design: Digital Media/Web Design, AS (GRPH-AS-DMW)

The purpose of the Graphic Design Associate Degree program is:

To provide a graphic design **terminal or transfer** program in the area of graphic design, digital media, computer graphics and advertising;

1. to offer a degree program for those considering an entry-level position in related graphic design fields; and
2. to provide greater technical knowledge and awareness of the creative visual arts to the community. The program is structured to equip students with a sound foundation in technical skills, graphic design concepts, aesthetics, terminology and vocabulary, and to provide an awareness of the application of acquired technical knowledge. Computer use will be an integral part of the program.

The Digital Media/Web Design program prepares students with a foundation of courses in art, graphic design, and digital media. This provides our students with a broad range of skills and the opportunity to explore a variety of career options. Web and Media design is in high demand as an industry and career track. This option focuses on digital media and web development to prepare students for a career in time-based media and web design.

Program Learning Outcomes:

Upon successful completion of all Graphic Design degree program requirements, graduates will:

- Demonstrate an understanding and appreciation of graphic design as a form of communication and art.
- Develop an ability to use design processes and principles to create visual products that convey a specific message to a targeted audience.
- Integrate creative thinking skills and strategies and use problem-solving techniques across a wide range of media.
- Communicate an understanding of how creative processes and skills are integrated with printing and other reproduction processes found in the graphic design field.
- Demonstrate knowledge of new technologies such as computer graphics that continue to evolve into important production tools.
- Identify the varied career paths within the graphics industry including, but not limited to, art direction, illustration, project design, production art, graphic design and media direction.
- Develop a portfolio of work reflecting knowledge, techniques, and creativity gained during the student's course of study.
- Demonstrate knowledge and skill in the application of the Principles of Design, Elements of Art, Visual Literacy and as an option, gain industry experience through internship.

Digital Media/Web Design Learning Outcomes:

In addition to the Graphic Design A.S. program learning outcomes students will:

- Demonstrate proficiency in the skills that are required in today's graphic design industry.
- Attain an expanded awareness and a critical understanding of graphic design products.
- Demonstrate proficiency with graphic design and digital media software that are industry standards. Become proficient in principles of Interaction Design and user experience processes as they relate to front- end web design and interactive graphics.

The Graphic Design A.S. transfers to 4-year State Universities and private 4-year Art Schools in-state such as the Hartford Art School, and out of state, Mass College of Art, Springfield College, SCAD. Students may enroll in art and graphic design courses full- or part-time. There are no requirements or prerequisites (other than individual course prerequisites) for students wishing to take courses part-time or as electives for other programs. Graphic design/fine arts faculty members are available for consultation with students who wish to enroll in the program and, thereafter, for course selection and transfer information.

Graphic Design General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

Arts & Humanities Elective: ARTH 1012 preferred or choose from ARTH 1001, ARTH 1002, ARTH 1003, or ART 1060 *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Graphic Design Program Core (27 credits)

GRA 1501 - Graphic Design I *Credits: 3*

ART 1110 - Drawing I *Credits: 3*

DGA 1101 - Introduction to Computer Graphics *Credits: 3*

OR GRA 2300 - Digital Imaging I *Credits: 3*

ART 1250 - Color Theory *Credits: 3*

OR ART 1210 - Two-Dimensional Design *Credits: 3*

GRA 2001 - Typography & Design I *Credits: 3*

OR GRA 2201 - Illustration I *Credits: 3*

OR ART 1120 - Drawing II *Credits: 3*

GRA 2401 - Digital Page Design *Credits: 3*

OR GRA 2502 - Graphic Design II *Credits: 3*

DGA 2101 - Advanced Computer Graphics *Credits: 3*

OR GRA 2301 - Digital Imaging II *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

ART 1810 - Digital Video Art I *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

OR COMM 1604 - Video Filmmaking *Credits: 3*

ART 2094 - Cooperative Education *Credits: 3*

OR GRA 2095 - Graphic Design Internship *Credits: 3*

OR GRA 2090 - Graphic Design Capstone *Credits: 3*

OR Elective ART/DGA/GRA - 2000 Level Studio Elective *Credits: 3*

OR ART 2090 - Portfolio Preparation I *Credits: 1-3*

OR DGA 2098 - Special Topics: Graphic Design *Credits: 3*

Digital Media/Web Design Electives (12 credits)

Choose courses for a minimum of 12 credits

- ART 1810 - Digital Video Art I *Credits: 3*
- ART 1880 - Animation Fundamentals *Credits: 3*
- ART 1450 - Digital Photography I *Credits: 3*
- ART 2090 - Portfolio Preparation I *Credits: 1-3*
- OR DGA 2098 - Special Topics: Graphic Design *Credits: 3*
- COMM 1604 - Video Filmmaking *Credits: 3*
- CSC 1271 - Web Development and Design I *Credits: 4*
- DGA 2507 - Motion Graphics and Effects *Credits: 3*
- GRA 2301 - Digital Imaging II *Credits: 3*
- OR DGA 2101 - Advanced Computer Graphics *Credits: 3*
- DGA 2508 - User Experience Design *Credits: 3*
- GRA 2207 - Interactive Media *Credits: 3*
- GRA 2600 - Web Design *Credits: 3* preferred on this track
- GRA 2601 - Web Design II *Credits: 3*
- GRA 2705 - 3D Computer Modeling *Credits: 3*
- GRA 2090 - Graphic Design Capstone *Credits: 3*

Total Credits: 60-63

Health Career Pathway Certificate (HLCP-CC)

The Health Career Pathway Certificate program is designed to assist students in achieving success in health care programs. Students will be provided with an overview of the various health career professions. Credits from this program may be applied toward health care program requirements within Connecticut State Community College. Completion of the certificate does NOT guarantee acceptance into health care programs. Students are responsible for verifying specific requirements for their program of interest.

Learning Outcomes:

Upon successful completion of all program requirements, the student should be able to:

- Identify a variety of career opportunities and roles available in health care professions
- Demonstrate an understanding of the impact of psychological principles and how they relate to the health care field
- Demonstrate critical thinking, logical reasoning, and problem-solving skills
- Demonstrate competence in written and oral communication
- Explain the methods of scientific inquiry that lead to the acquisition of knowledge
- Communicate using appropriate scientific terminology
- Define and apply college success and resilience strategies
- Recognize cultural identity and value of diversity

Credits from this program may be applied toward nursing and allied health program requirements. Students are responsible for verifying specific requirements of their program of interest.

Completion of the certificate does NOT guarantee acceptance into a nursing or allied health program.

Course recommendations vary for students pursuing nursing or other allied health professions. Students should meet with their Guided Pathway Advisor prior to registering for courses.

Required Courses

ENG 1010 - Composition *Credits: 3*
MATH 1002 - Math for Science and Technology *Credits: 3*
 OR MATH 1010 - Intermediate Algebra *Credits: 3*
 OR MATH 1011 - Applied Algebra with Modeling *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*
CHEM 1110 - Concepts of Chemistry *Credits: 4*
 OR CHEM 1210 - General Chemistry I *Credits: 4*
 OR PHYS 1100 - Introductory Physics *Credits: 4 or higher*
BIO 1005 - Introduction to Biology *Credits: 4*
 OR BIO 1210 - General Biology I *Credits: 4*
 OR BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
BIO 2111 - Anatomy & Physiology I *Credits: 4*
BIO 2112 - Anatomy & Physiology II *Credits: 4*
CCS 1001 - College & Career Success *Credits: 3*

Total Credits: 28

Health Information: Clinical Coding Certificate (MCOD-CC-MX)

This certificate program prepares students for careers as clinical coders. Clinical coders are skilled in classifying medical data utilizing knowledge of medical terminology, anatomy, physiology, disease processes, and pharmacology. Clinical coding is important to healthcare organizations because coding accuracy influences public health policy, impacts revenues, and drives the assessment of healthcare outcomes.

PROFESSIONAL CERTIFICATION: A coding credential provides proof of competency in the field and is often a requirement for clinical coding-related and healthcare revenue management positions. Graduates of the Clinical Coding Certificate are eligible to sit for AHIMA coding certification exams including:

- Certified Coding Associate (CCA®)
- Certified Coding Specialist (CCS®)
- Certified Coding Specialist-Physician-based (CCS-P®)

Students may also choose to seek additional coding certification through the American Academy of Professional Coders (AAPC).

Certificate Learning Outcomes:

- Apply knowledge of data content structure and standards to apply classification system guidelines including International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10- CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10- PCS), Current Procedural Terminology (CPT), Healthcare Common Procedure Coding System, Level II (HCPCS II), and Systematized Nomenclature of Medicine (SNOMED), and ensure health record documentation is complete and accurate.
- Protect health information by controlling access, ensuring information security, and understanding the legal and ethical issues in the use of health data.
- Utilize healthcare data to manage the revenue cycle of the healthcare organization through understanding of payment methods and systems in all care settings.
- Evaluate organization compliance with regulations and standards to support reimbursement.
- Understand and apply knowledge of pathophysiology, pharmacology, anatomy & physiology, medical terminology, computer concepts and computer applications as they relate to health information management.

Program Approval Statement

The CT State Middlesex Clinical Coding Certificate coding program is approved by the AHIMA Professional Certificate Approval Program. This designation acknowledges the coding program as having been evaluated by a peer review process against a national minimum set of standards for entry-level coding professionals. This process allows academic institutions to be acknowledged as offering an approved coding certificate program.

Value for Students

The AHIMA Professional Certificate Approval Program designation:

1. Identifies specialized programs that meet established coding educational standards
2. Stimulates improvement of educational standards through faculty development opportunities, and by involving faculty and staff in program evaluation and planning
3. Promotes a better understanding of the goals of professional coding education
4. Provides reasonable assurance that practitioners possess the necessary job skills upon entry into the profession

Program approval effective January of 2021 - January of 2024 with annual interim approval during these years.

Offered by the Middlesex campus of the CT State Community College only; AHIMA PCAP approval is limited the Middletown location. The courses are offered fully online, allowing students to access the program from anywhere.

This program is eligible for Workforce Innovation and Opportunity Act (WIOA) funding.

Certificate Program Requirements (30 credits)

HIMT 1110 - Introduction to Health Information Management *Credits: 3*

HIMT 1000 - Medical Terminology *Credits: 3*

BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

OR BIO 2112 - Anatomy & Physiology II *Credits: 4*

BIO 2103 - Pathophysiology *Credits: 3*

HIMT 2730 - Clinical Classification Systems I *Credits: 3*

HIMT 2740 - Clinical Classification Systems II *Credits: 3*

HIMT 1030 - Pharmacology in Health Information *Credits: 1*

HIMT 2192 - Clinical Coding Professional Practice Experience I *Credits: 3*

HIMT 2392 - Clinical Coding Professional Practice Experience II *Credits: 3*

HIMT 2792 - Clinical Coding Professional Practice Experience III *Credits: 3*

HIMT 2870 - Coding Specialist Certification Exam Preparation *Credits: 1*

Total Credits: 30

Health Information: Health Information Technology - Data Management, AS (HITD-AS)

The **Health Information Technology - Data Management** program provides an understanding of the many aspects of the emerging field of healthcare technology and information management.

Health information professionals are involved in the design, collection, storage, utilization, and transmission of data required to meet the professional, legal, financial, and administrative record-keeping requirements of healthcare delivery systems. They work with clinical, financial, epidemiological, administrative, and coded healthcare and insurance data. This associate degree program provides a concentration in data management and will provide students the skills necessary to enter the job market in a health information technician role.

PROGRAM ACCREDITATION: **Health Information Technology - Data Management** at the Middlesex campus is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

PROFESSIONAL CERTIFICATION: Graduates of the Health Information Technology - Data Management degree program are eligible to sit for American Health Information Management association (AHIMA) Registered Health Information Technician (RHIT®) certification exam. A credential provides proof of competency in the field and is often a requirement for Health Information Management positions.

Program Learning Outcomes:

- Apply knowledge of data content structure and standards to evaluate data sources, apply classification system guidelines including International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Current Procedural Terminology (CPT), Healthcare Common Procedure Coding System, Level II (HCPCS II), and Systematized Nomenclature of Medicine (SNOMED), and ensure health record documentation is complete and accurate.
- Protect health information by controlling access, ensuring information security, and understanding the legal and ethical issues in the use of health data.
- Participate in the implementation and use of information technology in the healthcare organization including establishing data standards, ensuring data quality, utilizing decision support tools, and performing data analysis.
- Utilize healthcare data to manage the revenue cycle of the healthcare organization through understanding of payment methods and systems in all care settings.
- Evaluate organization compliance with regulations and standards to support licensing, accreditation, and reimbursement.
- Apply information governance principles by collecting, storing, protecting, and using organizational data strategically, especially in performance improvement activities.
- Understand and apply knowledge of pathophysiology, pharmacology, anatomy & physiology, medical terminology, computer concepts and computer applications as they relate to health information management.

The courses are offered fully online, allowing students to access the program from any location.

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 2200 - Statistics II *Credits: 3*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (44 credits)

CIS 1001 - Introduction to Computers *Credits: 3*
 CSC 1231 - Database Development and Design I *Credits: 4*
 BIO 2103 - Pathophysiology *Credits: 3*
 HIMT 1000 - Medical Terminology *Credits: 3*
 HIMT 1110 - Introduction to Health Information Management *Credits: 3*

HIMT 2460 - Healthcare Reimbursement *Credits: 3*
HIMT 2730 - Clinical Classification Systems I *Credits: 3*
HIMT 2740 - Clinical Classification Systems II *Credits: 3*
HIMT 2350 - Healthcare Informatics *Credits: 3*
HIMT 2540 - Privacy, Security, and Compliance *Credits: 3*
HIMT 1030 - Pharmacology in Health Information *Credits: 1*
HIMT 2650 - Quality Management *Credits: 3*
HIMT 2380 - Healthcare Statistics *Credits: 3*
HIMT 2892 - Health Information Professional Practice Experience *Credits: 3*
HIMT 2750 - Medical Coding Case Studies *Credits: 2*
HIMT 2880 - Registered Health Information Technician Certification Exam Preparation *Credits: 1*

Total Credits: 66-67

Health Information: Healthcare Administration, AS (HCAD-AS)

Health Care Administrators develop, plan, and manage health care operations and services. Health Care Administrators apply business and financial management skills in the healthcare environment. The Health Care Administrator needs to understand health care delivery systems, health law, and health information systems.

Graduates of the Health Care Administration program are advised to pursue certification as a physician practice manager by sitting for the American Academy of Professional Coders (AAPC), Certified Physician Practice Manager (CPPM) exam.

A physician practice manager manages the business functions of a medical practice. The physician practice manager is responsible for practice operations that may include revenue management, compliance, human resources, information technology, and marketing.

Learning Outcomes:

- Describe basic business accounting practices and financial reports.
- Explain corporate governance structures and human resource management in healthcare organizations.
- Articulate the levels of care, providers, and places of services in the health care system and understanding of the healthcare business environment.
- Interpret regulations and standards to ensure compliance.
- Apply health care quality management principles and practices.
- Engage in provider recruitment and credentialing.
- Interpret insurance payment models and manage the physician practice revenue cycle.

Program available fully online; certain HIMT courses are only available through the Middlesex campus specially-accredited HIMT program including HIMT 1110, HIMT 2460, and HIMT 2650.

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

HIST 1015 - US History to 1877 *Credits: 3*

OR HIST 1016 - US History from Reconstruction *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BIO 2103 - Pathophysiology *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

ECON 1002 - Principles of Microeconomics *Credits: 3*

HIMT 1000 - Medical Terminology *Credits: 3*

HIMT 1110 - Introduction to Health Information Management *Credits: 3*

HIMT 2460 - Healthcare Reimbursement *Credits: 3*

HIMT 2650 - Quality Management *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Directed Electives - Choose two courses from ACCT, BFIN, BMGT, BMKT, BUSN, CSA, or HIMT *Credits: 6*

Total Credits: 61-62

Health Information: Medical Billing and Outpatient Coding Specialist (MCO-CC)

The Medical Billing and Outpatient Coding Specialist Certificate program prepares students for entry level positions in medical billing, outpatient medical coding, and health information in physician's offices, hospitals, ambulatory care centers, telehealth, health insurance companies, and other allied health venues. Process claims submissions for compliant and equitable reimbursement. The healthcare industry is facing significant changes in how providers and insurers generate, maintain, and communicate documentation related to medical records, insurance, coding, and financial reimbursement.

Learning Outcomes:

- Identify and compare reimbursement methodologies.
- Summarize principles related to healthcare privacy, confidentiality, legal and ethical issues.
- Use current Electronic Medical Record (EMR) software to manage provider reimbursement and patient health information.
- Prepare revenue cycle documents by utilizing International Classification of Disease - Clinical Modification (ICD-10-CM), Current Procedural Terminology (CPT), and Healthcare Common Procedure Coding System (HCPCS) II reference material.
- Review and abstract information needed to support accurate outpatient coding and health record documentation for completeness and accuracy.
- Interpret healthcare data to determine claim status, resolve claim denials, submit appeals, post payments and adjustments, and manage collections.
- Apply Health Insurance Portability and Accountability Act of 1996 (HIPAA), Health Information Technology for Economic and Clinical Health Act (HITECH), and Protected Health Information (PHI) regulations as they apply in the outpatient setting.

Eligible for Workforce Innovation and Opportunity Act (WIOA) and Supplemental Nutrition Assistance Program (SNAP) specialized funding that affects program length or structure. It prepares students for a national industry certification. A coding credential provides proof of competency in the field and is often a requirement for clinical coding-related and healthcare revenue management positions.

National Health Care Association (NHA)

- **CBCS** - Certified Billing and Coding Specialist
- **CMAA** - Certified Medical Administrative Assistant

American Association of Professional Coders (AAPC)

- **CPB** - Certified Professional Biller
- **COC** - Certified Outpatient Coder
- **CPC** - Certified Professional Coder

Required Courses

MDAS 1011 - Administrative Medical Assisting *Credits: 3*
OR HIMT 1410 - Healthcare Access Management *Credits: 3*
 HIMT 1110 - Introduction to Health Information Management *Credits: 3*
OR HIMT 2110 - Health Information Management Principles *Credits: 3*
 HIMT 2010 - Human Diseases and Pathophysiology *Credits: 3*
OR BIO 2103 - Pathophysiology *Credits: 3*
OR BIO 1023 - Biology of Disease *Credits: 3*
 BOT 1801 - Medical Coding I *Credits: 3*
OR HIMT 2730 - Clinical Classification Systems I *Credits: 3*
 BOT 1802 - Medical Coding II *Credits: 3*
OR HIMT 2740 - Clinical Classification Systems II *Credits: 3*
 MDAS 1012 - Medical Insurance and Billing *Credits: 3*
OR HIMT 2460 - Healthcare Reimbursement *Credits: 3*
 MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*
OR BOT 1800 - Medical Terminology and Anatomy *Credits: 3*
OR HIMT 1000 - Medical Terminology *Credits: 3*
 MDAS 2016 - Electronic Medical Records *Credits: 3*
OR HIMT 2350 - Healthcare Informatics *Credits: 3*

Total Credits: 24

Health Information: Outpatient Medical Coding and Auditing, AS (MCOD-AS)

The Outpatient Medical Coding and Auditing Associate Degree is for students interested in reimbursement and compliance. Students learn to evaluate medical documentation to validate assignment of codes in the outpatient setting using (Electronic Medical Records) EMR and Practice Management (PM) software for auditing and revenue recovery. The program prepares students for entry-level positions in outpatient medical coding and auditing with healthcare providers and payers including private insurance companies and government payers.

Learning Outcomes:

- Describe the distinct types of healthcare delivery systems and Telehealth services regulatory requirements, and compliance.
- Describe legal and ethical responsibilities in the healthcare organization as they relate Health Insurance Portability and Accountability Act of 1996 (HIPAA), Health Information Technology for Economic and Clinical Health Act (HITECH), Protected Health Information (PHI) and to patient/client rights.
- Demonstrate communication, teamwork, leadership skills and competencies.
- Use coding and documentation guidelines to produce clean claims.
- Utilize EMR/Electronic Health Records (EHR) software.
- Compare and contrast reimbursement methodologies.
- Audit outpatient documentation for accuracy to support International Classification of Disease (ICD), Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) coding, quality measures, and clinical requirements.
- Utilize proper terminology including abbreviations related to pathological conditions, diagnostic procedures, surgical interventions, and therapeutic procedures.
- Apply database information technology to electronic medical records and health information exchange.
- Find and communicate documentation deficiencies to providers to improve documentation for correct risk adjustment coding.

Upon completion of the program the student may choose to take an exam for national certification credentials:

American Association of Professional Coders - AAPC

- **CPC** - Certified Professional Coder
- **CPMA** - Certified Professional Medical Auditor
- **CDEO** - Certified Documentation Expert Outpatient

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1000 or higher *Credits: 3-4*
 BIO 1100 - Principles of the Human Body *Credits: 3*
 OR BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
 OR BIO 2112 - Anatomy & Physiology II *Credits: 4*
 PHIL 1012 - Bioethics *Credits: 3*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

HIMT 2530 - Compliance in the Outpatient Setting *Credits: 3*
 CSA 1110 - Introduction to Software Applications *Credits: 3*
 MDAS 1011 - Administrative Medical Assisting *Credits: 3*
 OR HIMT 1410 - Healthcare Access Management *Credits: 3*
 HIMT 1110 - Introduction to Health Information Management *Credits: 3*
 OR HIMT 2110 - Health Information Management Principles *Credits: 3*
 HIMT 2010 - Human Diseases and Pathophysiology *Credits: 3*
 OR BIO 2103 - Pathophysiology *Credits: 3*
 OR BIO 1023 - Biology of Disease *Credits: 3*
 BOT 1801 - Medical Coding I *Credits: 3*
 OR HIMT 2730 - Clinical Classification Systems I *Credits: 3*
 BOT 1802 - Medical Coding II *Credits: 3*

OR HIMT 2740 - Clinical Classification Systems II *Credits: 3*
HIMT 2111 - Advanced Coding & Auditing *Credits: 3*
MDAS 1012 - Medical Insurance and Billing *Credits: 3*
OR HIMT 2460 - Healthcare Reimbursement *Credits: 3*
MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*
OR BOT 1800 - Medical Terminology and Anatomy *Credits: 3*
OR HIMT 1000 - Medical Terminology *Credits: 3*
MDAS 2016 - Electronic Medical Records *Credits: 3*
OR HIMT 2350 - Healthcare Informatics *Credits: 3*
MDAS 2050 - Principles of Pharmacology *Credits: 3*
OR HIMT 1030 - Pharmacology in Health Information *Credits: 1*
Directed Elective from ACCT, BOT, BUSN, CSC, CST, ECON, HIMT, MATH, MDAS *Credits: 3-5*

Total Credits: 60-61

Health Science, AS (HESC-AS)

The Health Science A.S. degree is designed to provide students a solid foundation in the principles of healthcare delivery and prepare them to pursue entry-level professional training. The Health Science A.S. will prepare students for admission to a broad range of health and human services, advanced degrees or professional programs. In addition, the Health Science A.S. program will provide knowledge and skills for non-clinical employment opportunities in healthcare settings. This program will provide an opportunity for health professionals who are already working in healthcare settings, to learn valuable healthcare knowledge, while completing an associate's degree. Importantly, The Health Science program will provide an associate degree pathway for transfer into Health Science baccalaureate programs.

Learning Outcomes:

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

- Demonstrate a strong foundation in behavioral, natural, social, and health sciences appropriate to entry-level positions in the healthcare sector and/or admission to post graduate programs
- Demonstrate clear and effective communication skills to provide information to clients in the healthcare environment
- Demonstrate general knowledge of medical perspectives, health professions, and healthcare systems
- Apply legal concepts and ethical considerations within the framework of the healthcare industry
- Identify and demonstrate skills and knowledge necessary for the health care worker

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*
MATH 1010 - Intermediate Algebra *Credits: 3*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
BIO 2112 - Anatomy & Physiology II *Credits: 4*
SOC 1001 - Principles of Sociology *Credits: 3*
ENG 1020 - Composition II and Literature *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

BIO 1005 - Introduction to Biology *Credits: 4*
 OR BIO 1210 - General Biology I *Credits: 4*
MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*
CHEM 1110 - Concepts of Chemistry *Credits: 4*
 OR CHEM 1210 - General Chemistry I *Credits: 4*
HLTH 1070 - Medical Law and Ethics *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*
HSC 1001 - Introduction to Patient Care Management *Credits: 3*
HIMT 2110 - Health Information Management Principles *Credits: 3*
BIO 2111 - Anatomy & Physiology I *Credits: 4*
HSER 1034 - Introduction to the Mental Health System *Credits: 3*
PSY 2001 - Lifespan Development *Credits: 3*
SOC 2013 - Health and Aging *Credits: 3*
HSC 2090 - Health Science Capstone *Credits: 3*

Total Credits: 61-62

History Studies - TAP/CSCU Transfer Degree, AA (HIST-AA-TAP)

This program is designed to provide you with a foundation in the area of History Studies. Upon completion of the CSCU Pathway Transfer, A.A. Degree: History Studies program, you will be able to transfer seamlessly within the Connecticut State College and University system, being guaranteed full junior status in your pursuit of a bachelor's degree in the same discipline, without losing any credits or being required to take extra credits upon transfer.

Learning Outcomes:

Students who complete the CSCU Pathway Transfer, A.A. Degree: History Studies program will demonstrate familiarity with historical methods of inquiry and analysis and will be able to

- Define and interpret primary and secondary historical sources.
- Explain and evaluate the influence of historical agency (race, class, gender, region/location, and/or belief system) in the context of defined periods.

Framework Courses (30-35 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

Elective CLIX - Continued Learning/Information Literacy Course *Credits: 3-4*

Pathway Courses (30 credits)

Elective CRTY - Creativity Course *Credits: 3*

Elective GLKY - Global Knowledge Course *Credits: 3*

HIST 1016 - US History from Reconstruction *Credits: 3*

HIST 1015 - US History to 1877 *Credits: 3*

HIST Electives: 2 courses 2000-level *Credits: 6*

4 Unrestricted Electives (12 credits)

Students should consider beginning or completing work on foreign language requirements (at CCSU, ECSU and WCSU) not already met in high school and beginning work on a minor (required at CCSU - up to 9 credits can be completed at the community college). They may also complete other General Education requirements for CCSU, WCSU, SCSU, and CO-but NOT ECSU. Students who do not use open electives to complete at least 6 credits of additional history courses, minor courses or remaining foreign language requirements will not complete the baccalaureate in under 120 credits at CCSU.

Students can elect to take up to 6 credits of additional history courses as electives. The guidelines for HIST electives are as follows:

1. They must all be at the 1000- or 2000- level
2. No more than 6 credits can be at the 2000-level and no more than 6 can be at the 1000-level
3. No methodology or capstone courses will be accepted into the major
4. These additional history courses will be accepted as specifically designated or history elective courses in the major at all CSUs and CO.
5. HIST 1001 - Western History to the 1500s and HIST 1002 - Western History from the 1500s: WCSU will receive only one or the other in the major.
6. HIST 1021 - World History to the 1400s and HIST 1022 - World History since 1500s: WCSU will receive neither in the major.

Total Credits: 60-65

Horticulture Certificate (HORT-CC)

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.

Learning Outcomes:

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

- 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.
- 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.
- Control the common weeds, insects, pests and diseases of ornamentals and turf.
- Select the proper procedures, define the physiological basis, and describe practical applications of the reproduction of plants by asexual and sexual methods.
- Describe proper design and operation of greenhouse environmental systems, and evaluate their advantages and disadvantages in commercial production.
- Demonstrate a responsible attitude in relationships with employers, fellow employees, and toward the world of work.
- Select appropriate techniques for the establishment and management of lawns and utility turf areas.
- Manage the procedures used in landscape constructions and in the maintenance of small engines.
- Design flower beds, and mixed borders; place trees and shrubs for a variety of gardens for both residential and commercial properties.
- Access available resources to incorporate technological innovations.
- Demonstrate those skills, abilities and values which allow a person to function as a free and responsible citizen.
- Apply mathematics to calculating area, volume and application rates of fertilizers and pesticides.
- Evaluate site conditions to design attractive, functional landscapes.

This Certificate is eligible for WIOA funding. The program prepares students to obtain their Home Improvement Contractor's License and Supervisory Pesticide Applicator's license. Additionally, graduates may go on to take the state DEEP Arboriculture Licensing Exam.

Required Courses

HORT 1001 - Landscape Construction *Credits: 4*

HORT 1002 - Woody Plants *Credits: 3*

HORT 1003 - Herbaceous Plants *Credits: 3*

HORT 1004 - Soil Systems *Credits: 3*

HORT 2002 - Landscape Design 1 *Credits: 3*

HORT 2007 - Landscape Maintenance *Credits: 3*

HORT 2022 - Greenhouse Management *Credits: 4*

HORT 2095 - CWE Cooperative Work Experience *Credits: 3*

Elective - Choose one HORT course:

- HORT 1006 - Fruit Production *Credits: 3*
- HORT 1007 - Vegetable and Herb Production *Credits: 3*
- HORT 1200 - Horticulture of Cannabis *Credits: 3*
- HORT 1015 - Turf Management *Credits: 3*
- HORT 2004 - Computers in Landscape Design *Credits: 3*
- HORT 2019 - Arboriculture *Credits: 3*
- HORT 2024 - Plant Propagation and Hybridization *Credits: 4*
- HORT 2050 - Hydroponic Production *Credits: 4*

Total Credits: 29

Horticulture, AS (HORT-AS)

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 in plant production, landscape services, landscape design, or 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. Naugatuck Valley campus 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.

Program Learning Outcomes:

- Demonstrate proficiency in the construction of hardscape landscape components, including pavers, concrete and wood structures.
- Identify common ornamental trees and shrubs, ground covers by botanical and common names, and describe characteristics of each.
- Review and discuss the characteristics of soil, structure, soil erosion, and soil restoration.
- Identify common herbaceous perennials and annuals by botanical and common names, and describe characteristics of each.
- 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.
- Select the proper procedures, define the physiological basis, and describe practical applications of the reproduction of plants by asexual and sexual methods.
- Describe proper design and operation of greenhouse environmental systems, and evaluate their advantages and disadvantages in commercial production.
- 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.
- Relate basic knowledge of botany to plant growth and culture.
- 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.
- Identify, analyze, and troubleshoot common landscape and greenhouse pests and diseases within the landscape utilizing integrated pest management

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

ART 1110 - Drawing I *Credits: 3*

BIO 1550 - Botany *Credits: 4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Required Courses (38-39 credits)

HORT 1001 - Landscape Construction *Credits: 4*

HORT 1002 - Woody Plants *Credits: 3*

HORT 1003 - Herbaceous Plants *Credits: 3*

HORT 1004 - Soil Systems *Credits: 3*

HORT 2002 - Landscape Design 1 *Credits: 3*

HORT 2007 - Landscape Maintenance *Credits: 3*

HORT 2008 - Landscape Contract Administration *Credits: 3*

HORT 2015 - Integrated Pest Management *Credits: 3*

HORT 2022 - Greenhouse Management *Credits: 4*

HORT 2095 - CWE Cooperative Work Experience *Credits: 3*

Choose 2 courses from:

- HORT 1006 - Fruit Production *Credits: 3*
- HORT 1007 - Vegetable and Herb Production *Credits: 3*

- HORT 1200 - Horticulture of Cannabis *Credits: 3*
- HORT 1015 - Turf Management *Credits: 3*
- HORT 2003 - Landscape Design 2 *Credits: 3*
- HORT 2004 - Computers in Landscape Design *Credits: 3*
- HORT 2019 - Arboriculture *Credits: 3*
- HORT 2024 - Plant Propagation and Hybridization *Credits: 4*
- HORT 2050 - Hydroponic Production *Credits: 4*

Total Credits: 60-61

Horticulture: Landscape Design Certificate (LNSC-CC)

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)

Learning Outcomes:

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

- 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.
- 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 computer aided tools; outline techniques for low maintenance needs in both residential and commercial properties.
- 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.
- 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.
- Demonstrate and explain how to prune deciduous and evergreen trees and shrubs for a variety of purposes.
- Interpret fertilizer needs for particular plants from the general recommendations of a soil analysis; recognize signs of nutrient deficiency.
- Demonstrate techniques for designing small properties; plan and select plants for different kinds of gardens (examples: for woods, meadows, marshes, water, rock gardens).
- 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.
- Relate and demonstrate how to use all the subtleties of color and design in the garden in two-dimensional and three-dimensional formats.
- Initiate, develop and present a significant design as an independent study project.
- Demonstrate a responsible attitude in relationships with employers, fellow employees, and toward the world of work.
- Access available resources to incorporate technological innovations.
- Be prepared for certification as a Professional Landscape Designer.
- Initiate landscape design through computer-aided programs.

This Certificate is eligible for WIOA funding. The program prepares students to obtain their certification as a Landscape Designer through the Association of Professional Landscape Designers. It also assists students with future career prospects as a Landscape Architect through the transfer to a four-year degree program.

Required Courses

HORT 1001 - Landscape Construction *Credits: 4*
 HORT 1002 - Woody Plants *Credits: 3*
 HORT 1003 - Herbaceous Plants *Credits: 3*
 HORT 1004 - Soil Systems *Credits: 3*
 HORT 2002 - Landscape Design 1 *Credits: 3*
 HORT 2004 - Computers in Landscape Design *Credits: 3*
 HORT 2007 - Landscape Maintenance *Credits: 3*
 HORT 2008 - Landscape Contract Administration *Credits: 3*
 ART 1110 - Drawing I *Credits: 3*
OR HORT 2003 - Landscape Design 2 *Credits: 3*

Total Credits: 28

Human Services, AS (HUMS-AS-HS)

The Human Services program is designed to provide education and training for individuals seeking employment in various human service settings. The program is also designed to provide a basis for those who choose to continue their education in social work, early intervention and prevention, gerontology, mental health, home visitation, early childhood programming, addiction counseling, advocacy, social justice, and other related fields.

Opportunities in human services include working in group homes, social service agencies, youth recreational centers, educational settings, senior centers and assisted living programs. Human services is a broad field and students learn in courses which areas they would like to focus on for their careers.

This career program is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level community, counseling-related, and social service minded organizations. Instruction is cross-disciplinary and designed for maximum transferability for those wishing to continue their studies to psychology, social work, education, or other helping professions. Emphasis is on the empirical and theoretical aspects of the social sciences and application through experiential learning including a practicum. This degree is interdisciplinary in nature and embraces the holistic approach. All majors must complete a minimum of three credits in an Human Services Field Work I. Finally, students may be required to complete a background check, drug screening, and proof of health (e.g., vaccinations) for field work and field work may involve travel which is at the student's own expense, coordination, and planning.

In addition to the Human Services general degree, students can choose one of these options:

- Human Services: Child, Family, and Community Studies, AS (CFCS-AS-HS)
- Human Services: Gerontology, AS (GRTL-AS-HS)
- Human Services: Mental Health, AS (MNHL-AS-HS)
- Human Services: Human Services Management, AS (HSMG-AS-HS)

Learning Outcomes:

- Explain and compare the theories pertaining to adjustment, learning theories, and development theories; and explain and compare treatment methods and intervention modalities theories.
- Explain and compare the etiological factors in psychopathology, including the biological, sociological, environmental, and psychological factors.
- Demonstrate the use of methods of research and reporting, using psychological, sociological, educational, therapeutic, and clinical terminology.
- Demonstrate an understanding of the personality and behavioral factors, both integrative (adaptive) and disintegrative (maladaptive) which contribute to individuals/clients' coping skills dealing with stress, conflict, and hardship.
- Demonstrate an understanding of the normative developmental patterns and how this understanding impacts our understanding of abnormal behavior and clinical/treatment interventions.
- Integrate knowledge and skill in achieving competency in functional and responsive therapeutic abilities.
- Demonstrate skills in client needs assessment and in the provision of information and referral for client access to resources; and use appropriate human service practice skills within the context of providing human services.
- Demonstrate an awareness of self as a change agent.
- Analyze the impact of collaborative social service systems.
- Explain the history and development of human services in the United States.
- Demonstrate knowledge of social welfare as a system designed to serve people, groups, community and society.
- Demonstrate knowledge of the language, terminology, theories, models, techniques, interventions, and strategies applicable to human services.
- Explain interventions, techniques, and strategies for assisting individuals, families, groups, organizations, and communities.
- Demonstrate an understanding of the impact of discrimination, racism, micro/macroaggressions, inequities, and oppression on individuals and society.
- Demonstrate a basic knowledge of results-based accountability in a disciplined way of thinking and acting to improve entrenched, complex, and current social problems.

Human Services General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*
MATH 1000 or higher *Credits: 3-4*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
Elective SCRX - Scientific Reasoning Course *Credits: 3-4*
(*BIO 1100 AND BIO 1100L recommended*)
POLS 1002 - American Government *Credits: 3*
 OR POLS 1003 - State and Local Government *Credits: 3*
 OR HIST 1016 - US History from Reconstruction *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Human Services Program Core (27 credits)

SOC 1001 - Principles of Sociology *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
HSER 2242 - Human Services Skills and Methods *Credits: 3*
 OR HSER 2247 - Change Theory and Strategies in Behavioral Health Care *Credits: 3*
HSER 2420 - Group and Interpersonal Relations *Credits: 3*
HSER 2106 - Professional, Legal, and Ethical Issues in Human Services *Credits: 3*
HSER 2696 - Human Services Field Work I *Credits: 3*
 OR HSER 2543 - Social and Contemporary Issues in Human Services *Credits: 3*
HSER 2351 - Working with Individuals and Families *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*

Program Courses (12 credits)

PSY 2001 - Lifespan Development *Credits: 3*
 OR PSY 2004 - Child and Adolescent Development *Credits: 3*
Elective - SOC or ANTH *Credits: 3*
Open Electives (2 courses) *Credits: 6*

Total Credits: 61-62

Human Services: Behavioral Healthcare Specialist Certificate (BHCS-CC-HS)

Health encompasses more than just physical health. Behavioral healthcare refers to the treatment of mental illnesses and substance abuse disorders; and is an important component of an effective healthcare delivery system. This program will prepare individuals for employment in entry-level professional positions in public and private agencies serving mentally ill and substance abusing patients. Instruction is also provided to allow for the continuation of studies at two- and four-year programs in the areas of substance abuse and mental health.

Learning Outcomes:

Students will understand and/or acquire knowledge in:

- Skills, strategies and techniques necessary for entry-level professional positions in substance abuse and mental health treatment facilities.
- Professional competencies in report writing, assessment, case management, treatment planning and other professional functions within the Behavioral Health Care field.
- Models of research and theory for diagnosing and treating individuals with mental health and addiction issues.
- Professional competencies in working with clients individually and in groups within diverse populations.
- Direct client engagement and supervision in a clinical setting within the Behavioral Health Care field.
- Preparation for continued studies at 2- and 4-year educational institutions in the area of addiction and mental health.

This certificate includes 120 hours of supervised field placement work in HSE 287. Students may be required to complete a background check, proof of health (e.g., vaccinations), and drug screening for field work.

Required Courses

ENG 1010 - Composition *Credits: 3*

HSER 1001 - Introduction to Human Services *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

HSER 1040 - Introduction to Behavioral Healthcare *Credits: 3*

HSER 2247 - Change Theory and Strategies in Behavioral Health Care *Credits: 3*

HSER 2002 - Introduction to Counseling and Interviewing *Credits: 3*

HSER 2420 - Group and Interpersonal Relations *Credits: 3*

PSY 1040 - The Psychology of Addiction *Credits: 3*

PSY 2045 - Abnormal Psychology *Credits: 3*

HSER 2690 - Behavioral Health Field Placement *Credits: 3*

Total Credits: 30

Human Services: Child, Family, and Community Studies, AS (CFCS-AS-HS)

The Human Services program is designed to provide education and training for individuals seeking employment in various human service settings. The program is also designed to provide a basis for those who choose to continue their education in social work, early intervention and prevention, gerontology, mental health, home visitation, early childhood programming, addiction counseling, advocacy, social justice, and other related fields.

Opportunities in human services include working in group homes, social service agencies, youth recreational centers, educational settings, senior centers and assisted living programs. Human services is a broad field and students learn in courses which areas they would like to focus on for their careers.

This career program is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level community, counseling-related, and social service minded organizations. Instruction is cross-disciplinary and designed for maximum transferability for those wishing to continue their studies to psychology, social work, education, or other helping professions. Emphasis is on the empirical and theoretical aspects of the social sciences and application through experiential learning including a practicum. This degree is interdisciplinary in nature and embraces the holistic approach. All majors must complete a minimum of three credits in an Human Services Field Work I. Finally, students may be required to complete a background check, drug screening, and proof of health (e.g., vaccinations) for field work and field work may involve travel which is at the student's own expense, coordination, and planning.

Learning Outcomes:

- Explain and compare the theories pertaining to adjustment, learning theories, and development theories; and explain and compare treatment methods and intervention modalities theories.
- Explain and compare the etiological factors in psychopathology, including the biological, sociological, environmental, and psychological factors.
- Demonstrate the use of methods of research and reporting, using psychological, sociological, educational, therapeutic, and clinical terminology.
- Demonstrate an understanding of the personality and behavioral factors, both integrative (adaptive) and disintegrative (maladaptive) which contribute to individuals/clients' coping skills dealing with stress, conflict, and hardship.
- Demonstrate an understanding of the normative developmental patterns and how this understanding impacts our understanding of abnormal behavior and clinical/treatment interventions.
- Integrate knowledge and skill in achieving competency in functional and responsive therapeutic abilities.
- Demonstrate skills in client needs assessment and in the provision of information and referral for client access to resources; and use appropriate human service practice skills within the context of providing human services.
- Demonstrate an awareness of self as a change agent.
- Analyze the impact of collaborative social service systems.
- Explain the history and development of human services in the United States.
- Demonstrate knowledge of social welfare as a system designed to serve people, groups, community and society.
- Demonstrate knowledge of the language, terminology, theories, models, techniques, interventions, and strategies applicable to human services.
- Explain interventions, techniques, and strategies for assisting individuals, families, groups, organizations, and communities.
- Demonstrate an understanding of the impact of discrimination, racism, micro/macroaggressions, inequities, and oppression on individuals and society.
- Demonstrate a basic knowledge of results-based accountability in a disciplined way of thinking and acting to improve entrenched, complex, and current social problems.

Human Services General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

(*BIO 1100 AND BIO 1100L recommended*)

POLS 1002 - American Government *Credits: 3*

- OR** POLS 1003 - State and Local Government *Credits: 3*
OR HIST 1016 - US History from Reconstruction *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Human Services Program Core (27 credits)

- SOC 1001 - Principles of Sociology *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
HSER 2242 - Human Services Skills and Methods *Credits: 3*
OR HSER 2247 - Change Theory and Strategies in Behavioral Health Care *Credits: 3*
HSER 2420 - Group and Interpersonal Relations *Credits: 3*
HSER 2106 - Professional, Legal, and Ethical Issues in Human Services *Credits: 3*
HSER 2696 - Human Services Field Work I *Credits: 3*
OR HSER 2543 - Social and Contemporary Issues in Human Services *Credits: 3*
HSER 2351 - Working with Individuals and Families *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*

Child, Family, and Community Studies Courses (12 credits)

- ECED 1376 - Health and Wellness *Credits: 3*
ECED 2515 - Exceptional Learners *Credits: 3*
ECED 2875 - Children, Families, and Communities *Credits: 3*
ECED 1001 - Introduction to Early Childhood Care and Education *Credits: 3*
OR ECED 1377 - Guiding and Understanding Children's Behavior *Credits: 3*
OR ECED 2825 - Anti-Bias, Equity, and Diversity in Education *Credits: 3*
OR HSER 2435 - Family Violence Across the Lifespan *Credits: 3*

Total Credits: 61-62

Human Services: Gerontology Certificate (GRTL-CC-HS)

The Human Services Gerontology certificate is designed to provide education and training for individuals seeking entry employment in various settings that cater to and focus on the gerontology population. Gerontology is the study of aging - a very complex and fascinating process which we all experience. It is complex because it encompasses the physiological, social, emotional, cognitive, and economic aspects of growing old. By completing the one-year certificate program, students may find immediate opportunity for employment in professional and paraprofessional entry-level positions at human service agencies, senior centers, residential communities, health care facilities, and other agencies that provide much needed services for the elderly. For others, this certificate will allow them to further enhance their knowledge of gerontology.

This career certificate is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level community, care-related, and social services minded organizations. Instruction is cross-disciplinary and designed for transferability for those wishing to continue their studies to psychology, social work, health care, or other helping professions. This degree is interdisciplinary in nature and embraces the holistic approach.

Learning Outcomes:

Upon successful completion of the Gerontology certificate program requirements, graduates will

- Describe physiological, psychological, and socio-economic factors relating to the aging process.
- Identify sources of assistance to meet those needs and demonstrate the ability to comprehend the needs of an elderly person.
- Identify the need for advocacy for the elderly and sources of assistance and demonstrate the ability to deliver services.
- Identify and examine the factors necessary for successful aging.
- Identify (and demonstrate) interpersonal and communication skills necessary to work in environments serving an elderly population.
- Assess the social policies that affect the aging population and their families.
- Examine ethical principles to guide work with and on behalf of older adults.
- Examine and utilize gerontological frameworks to research the physical, psychological, economic, and social factors underlying the aging process.

Required Courses

ENG 1010 - Composition *Credits: 3*

HSER 1001 - Introduction to Human Services *Credits: 3*

HSER 2242 - Human Services Skills and Methods *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

HSER 1070 - Introduction to Gerontology *Credits: 3*

PSY 2010 - Death and Dying *Credits: 3*

OR SOC 2025 - Death and Dying *Credits: 3*

PSY 2053 - Multicultural Psychology *Credits: 3*

OR SOC 2020 - Racial and Ethnic Diversity *Credits: 3*

Total Credits: 24

Human Services: Gerontology, AS (GRTL-AS-HS)

The Human Services program is designed to provide education and training for individuals seeking employment in various human service settings. The program is also designed to provide a basis for those who choose to continue their education in social work, early intervention and prevention, gerontology, mental health, home visitation, early childhood programming, addiction counseling, advocacy, social justice, and other related fields.

Opportunities in human services include working in group homes, social service agencies, youth recreational centers, educational settings, senior centers and assisted living programs. Human services is a broad field and students learn in courses which areas they would like to focus on for their careers.

This career program is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level community, counseling-related, and social service minded organizations. Instruction is cross-disciplinary and designed for maximum transferability for those wishing to continue their studies to psychology, social work, education, or other helping professions. Emphasis is on the empirical and theoretical aspects of the social sciences and application through experiential learning including a practicum. This degree is interdisciplinary in nature and embraces the holistic approach. All majors must complete a minimum of three credits in an Human Services Field Work I. Finally, students may be required to complete a background check, drug screening, and proof of health (e.g., vaccinations) for field work and field work may involve travel which is at the student's own expense, coordination, and planning.

Learning Outcomes:

- Explain and compare the theories pertaining to adjustment, learning theories, and development theories; and explain and compare treatment methods and intervention modalities theories.
- Explain and compare the etiological factors in psychopathology, including the biological, sociological, environmental, and psychological factors.
- Demonstrate the use of methods of research and reporting, using psychological, sociological, educational, therapeutic, and clinical terminology.
- Demonstrate an understanding of the personality and behavioral factors, both integrative (adaptive) and disintegrative (maladaptive) which contribute to individuals/clients' coping skills dealing with stress, conflict, and hardship.
- Demonstrate an understanding of the normative developmental patterns and how this understanding impacts our understanding of abnormal behavior and clinical/treatment interventions.
- Integrate knowledge and skill in achieving competency in functional and responsive therapeutic abilities.
- Demonstrate skills in client needs assessment and in the provision of information and referral for client access to resources; and use appropriate human service practice skills within the context of providing human services.
- Demonstrate an awareness of self as a change agent.
- Analyze the impact of collaborative social service systems.
- Explain the history and development of human services in the United States.
- Demonstrate knowledge of social welfare as a system designed to serve people, groups, community and society.
- Demonstrate knowledge of the language, terminology, theories, models, techniques, interventions, and strategies applicable to human services.
- Explain interventions, techniques, and strategies for assisting individuals, families, groups, organizations, and communities.
- Demonstrate an understanding of the impact of discrimination, racism, micro/macroaggressions, inequities, and oppression on individuals and society.
- Demonstrate a basic knowledge of results-based accountability in a disciplined way of thinking and acting to improve entrenched, complex, and current social problems.

Human Services General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

(*BIO 1100 AND BIO 1100L recommended*)

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*
OR HIST 1016 - US History from Reconstruction *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Human Services Program Core (27 credits)

SOC 1001 - Principles of Sociology *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
HSER 2242 - Human Services Skills and Methods *Credits: 3*
OR HSER 2247 - Change Theory and Strategies in Behavioral Health Care *Credits: 3*
HSER 2420 - Group and Interpersonal Relations *Credits: 3*
HSER 2106 - Professional, Legal, and Ethical Issues in Human Services *Credits: 3*
HSER 2696 - Human Services Field Work I *Credits: 3*
OR HSER 2543 - Social and Contemporary Issues in Human Services *Credits: 3*
HSER 2351 - Working with Individuals and Families *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*

Gerontology Courses (12 credits)

PSY 2010 - Death and Dying *Credits: 3*
OR SOC 2025 - Death and Dying *Credits: 3*
HSER 1034 - Introduction to the Mental Health System *Credits: 3*
PSY 2001 - Lifespan Development *Credits: 3*
HSER 1070 - Introduction to Gerontology *Credits: 3*

Total Credits: 61-62

Human Services: Human Services Management, AS (HSMG-AS-HS)

The Human Services program is designed to provide education and training for individuals seeking employment in various human service settings. The program is also designed to provide a basis for those who choose to continue their education in social work, early intervention and prevention, gerontology, mental health, home visitation, early childhood programming, addiction counseling, advocacy, social justice, and other related fields.

Opportunities in human services include working in group homes, social service agencies, youth recreational centers, educational settings, senior centers and assisted living programs. Human services is a broad field and students learn in courses which areas they would like to focus on for their careers.

This career program is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level community, counseling-related, and social service minded organizations. Instruction is cross-disciplinary and designed for maximum transferability for those wishing to continue their studies to psychology, social work, education, or other helping professions. Emphasis is on the empirical and theoretical aspects of the social sciences and application through experiential learning including a practicum. This degree is interdisciplinary in nature and embraces the holistic approach. All majors must complete a minimum of three credits in an Human Services Field Work I. Finally, students may be required to complete a background check, drug screening, and proof of health (e.g., vaccinations) for field work and field work may involve travel which is at the student's own expense, coordination, and planning.

Learning Outcomes:

- Explain and compare the theories pertaining to adjustment, learning theories, and development theories; and explain and compare treatment methods and intervention modalities theories.
- Explain and compare the etiological factors in psychopathology, including the biological, sociological, environmental, and psychological factors.
- Demonstrate the use of methods of research and reporting, using psychological, sociological, educational, therapeutic, and clinical terminology.
- Demonstrate an understanding of the personality and behavioral factors, both integrative (adaptive) and disintegrative (maladaptive) which contribute to individuals/clients' coping skills dealing with stress, conflict, and hardship.
- Demonstrate an understanding of the normative developmental patterns and how this understanding impacts our understanding of abnormal behavior and clinical/treatment interventions.
- Integrate knowledge and skill in achieving competency in functional and responsive therapeutic abilities.
- Demonstrate skills in client needs assessment and in the provision of information and referral for client access to resources; and use appropriate human service practice skills within the context of providing human services.
- Demonstrate an awareness of self as a change agent.
- Analyze the impact of collaborative social service systems.
- Explain the history and development of human services in the United States.
- Demonstrate knowledge of social welfare as a system designed to serve people, groups, community and society.
- Demonstrate knowledge of the language, terminology, theories, models, techniques, interventions, and strategies applicable to human services.
- Explain interventions, techniques, and strategies for assisting individuals, families, groups, organizations, and communities.
- Demonstrate an understanding of the impact of discrimination, racism, micro/macroaggressions, inequities, and oppression on individuals and society.
- Demonstrate a basic knowledge of results-based accountability in a disciplined way of thinking and acting to improve entrenched, complex, and current social problems.

Human Services General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

(*BIO 1100 AND BIO 1100L recommended*)

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*
OR HIST 1016 - US History from Reconstruction *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Human Services Program Core (27 credits)

SOC 1001 - Principles of Sociology *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
HSER 2242 - Human Services Skills and Methods *Credits: 3*
OR HSER 2247 - Change Theory and Strategies in Behavioral Health Care *Credits: 3*
HSER 2420 - Group and Interpersonal Relations *Credits: 3*
HSER 2106 - Professional, Legal, and Ethical Issues in Human Services *Credits: 3*
HSER 2696 - Human Services Field Work I *Credits: 3*
OR HSER 2543 - Social and Contemporary Issues in Human Services *Credits: 3*
HSER 2351 - Working with Individuals and Families *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*

HS Management Courses (12 credits)

BUSN 2100 - Business Communications *Credits: 3*
OR PSY 2047 - Industrial & Organizational Psychology *Credits: 3*
BMGT 2020 - Principles of Management *Credits: 3*
OR HSER 2600 - Supervision and Management in Human Services *Credits: 3*
BMG* 203 - Leadership *Credits: 3*
BUSN 2100 - Business Communications *Credits: 3*
OR BMGT 2040 - Managerial Communications *Credits: 3*

Total Credits: 61-62

Human Services: Management Certificate (HSMG-CC-HS)

The Human Services Management certificate is designed to provide education and training for individuals seeking entry level employment in various human service settings. Human services include a broad field and students learn in courses which areas they would like to focus on for their careers. It is also designed to provide a basis for those who choose to continue their education in community services, early intervention and prevention, gerontology, mental health, home visitation, educational programming, addiction counseling, advocacy, social justice, and other related fields.

This career certificate is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level positions in management or human resources. Instruction is cross-disciplinary and designed for transferability for those wishing to continue their studies. Emphasis is on application of skills. This certificate is interdisciplinary in nature and embraces an integrated and holistic educational approach. Students may be required to complete a background check, drug screening, and proof of health (e.g., vaccinations) for field work. Field work may be required which may include travel at the student's expense, coordination, and planning.

Learning Outcomes:

- Students will demonstrate basic knowledge of, and an understanding of the core management functions such as planning, organizing, leading, and controlling.
- Examine the theoretical and practical understanding and management of service delivery/Examine and demonstrate a thorough understanding of theories such as management and behavioral and be able to apply that theory to real-world situations.
- Identify the needs and strengths inherent in individuals, families, and communities, and work to develop program services that address needs.
- Practice management skills, including effective communication, human relations, teamwork, and negotiation skills.
- Identify best practices (techniques and strategies) for creating work environments that foster corporate social responsibility, sustainability, and long-term growth.
- Examine current laws applicable to human service and business operations such as hiring and training personnel.
- Identify ethical and legal expectations, and current challenges/issues.
- Examine the theoretical and practical understanding and management of service delivery.
- Analyzing complex managerial and organizational situations, considering the larger context, strategy, policy, ethics, and justice.
- Describe skills needed to work with, supervise, train, mentor, and motivate employees.
- Utilize human services, knowledge, skills, and resources to enhance career prospects and performance.

Required Courses

BMGT 2100 - Organizational Behavior *Credits: 3*
OR PSY 2047 - Industrial & Organizational Psychology *Credits: 3*
OR BMGT 2200 - Human Resource Management *Credits: 3*
BMGT 2020 - Principles of Management *Credits: 3*
OR HSER 2600 - Supervision and Management in Human Services *Credits: 3*
BMG* 203 - Leadership *Credits: 3*
BUSN 2100 - Business Communications *Credits: 3*
OR BMGT 2040 - Managerial Communications *Credits: 3*
ENG 1010 - Composition *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
SOC 1001 - Principles of Sociology *Credits: 3*
OR PSY 1011 - General Psychology I *Credits: 3*
PSY 2053 - Multicultural Psychology *Credits: 3*
OR SOC 2020 - Racial and Ethnic Diversity *Credits: 3*

Total Credits: 27

Human Services: Mental Health Certificate (MNHL-CC-HS)

The Human Services Mental Health Certificate prepares students for entry level positions as mental health aids, work in rehabilitation agencies, or at other mental health agencies. Students who complete this certificate are assigned to work under the supervision of other licensed and/or credential professionals such as social workers, case managers, counselors, addiction specialists, and psychologists and handle a wide range of entry level job responsibilities.

The certificate is designed to provide education and training for individuals seeking entry employment in various human service settings. It is also designed to provide a basis for those who choose to continue their education in social work, early intervention and prevention, gerontology, mental health, home visitation, early childhood and education programming, addiction, advocacy, social justice, and other related fields.

This 30-credit career certificate is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level community, care related, and social service minded organizations. Instruction is cross-disciplinary and designed for maximum transferability for those wishing to continue their studies to psychology, social work, education, or other helping professions. Emphasis is on the empirical and theoretical aspects of the social sciences and application through experiential learning including a practicum. This degree is interdisciplinary in nature and embraces the holistic approach. Students may be required to complete a background check, drug screening, and proof of health (e.g., vaccinations) for field work. Field work may be required which may include travel at the student's expense, coordination, and planning.

Learning Outcomes:

Student will understand and/or acquire knowledge:

- The history and foundation of the human services profession.
- Entry-level skills of appropriate strategies, techniques, and intervention for best practices.
- Working collaboratively in and with groups of diverse sizes and demographics.
- Skills and methods appropriate for use and application with diverse populations.
- Entry-level competency in the performance of case management needs assessment, group work, interviewing process, and client engagement.

See program advisor/coordinator or an academic counselor to discuss practicum (HSER 2690 and HSER 2696) requirements during your first semester at the CT State Community College. Both HSER 2690 and HSER 2696 require 120 hours of field work. Finally, students may be required to complete a background check, proof of health (e.g., vaccinations), and drug screening for field work.

Required Courses

ENG 1010 - Composition *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*
HSER 2420 - Group and Interpersonal Relations *Credits: 3*
PSY 2045 - Abnormal Psychology *Credits: 3*
PSY 2053 - Multicultural Psychology *Credits: 3*
OR SOC 2020 - Racial and Ethnic Diversity *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 1034 - Introduction to the Mental Health System *Credits: 3*
PSY 2001 - Lifespan Development *Credits: 3*
HSER 2242 - Human Services Skills and Methods *Credits: 3*
HSER 2690 - Behavioral Health Field Placement *Credits: 3*
OR HSER 2696 - Human Services Field Work I *Credits: 3*

Total Credits: 30

Human Services: Mental Health, AS (MNHL-AS-HS)

The Human Services program is designed to provide education and training for individuals seeking employment in various human service settings. The program is also designed to provide a basis for those who choose to continue their education in social work, early intervention and prevention, gerontology, mental health, home visitation, early childhood programming, addiction counseling, advocacy, social justice, and other related fields.

Opportunities in human services include working in group homes, social service agencies, youth recreational centers, educational settings, senior centers and assisted living programs. Human services is a broad field and students learn in courses which areas they would like to focus on for their careers.

This career program is designed to prepare students for diverse employment opportunities and competent performance in a variety of entry-level community, counseling-related, and social service minded organizations. Instruction is cross-disciplinary and designed for maximum transferability for those wishing to continue their studies to psychology, social work, education, or other helping professions. Emphasis is on the empirical and theoretical aspects of the social sciences and application through experiential learning including a practicum. This degree is interdisciplinary in nature and embraces the holistic approach. All majors must complete a minimum of three credits in an Human Services Field Work I. Finally, students may be required to complete a background check, drug screening, and proof of health (e.g., vaccinations) for field work and field work may involve travel which is at the student's own expense, coordination, and planning.

Program Learning Outcomes:

- Explain and compare the theories pertaining to adjustment, learning theories, and development theories; and explain and compare treatment methods and intervention modalities theories.
- Explain and compare the etiological factors in psychopathology, including the biological, sociological, environmental, and psychological factors.
- Demonstrate the use of methods of research and reporting, using psychological, sociological, educational, therapeutic, and clinical terminology.
- Demonstrate an understanding of the personality and behavioral factors, both integrative (adaptive) and disintegrative (maladaptive) which contribute to individuals/clients' coping skills dealing with stress, conflict, and hardship.
- Demonstrate an understanding of the normative developmental patterns and how this understanding impacts our understanding of abnormal behavior and clinical/treatment interventions.
- Integrate knowledge and skill in achieving competency in functional and responsive therapeutic abilities.
- Demonstrate skills in client needs assessment and in the provision of information and referral for client access to resources; and use appropriate human service practice skills within the context of providing human services.
- Demonstrate an awareness of self as a change agent.
- Analyze the impact of collaborative social service systems.
- Explain the history and development of human services in the United States.
- Demonstrate knowledge of social welfare as a system designed to serve people, groups, community and society.
- Demonstrate knowledge of the language, terminology, theories, models, techniques, interventions, and strategies applicable to human services.
- Explain interventions, techniques, and strategies for assisting individuals, families, groups, organizations, and communities.
- Demonstrate an understanding of the impact of discrimination, racism, micro/macroaggressions, inequities, and oppression on individuals and society.
- Demonstrate a basic knowledge of results-based accountability in a disciplined way of thinking and acting to improve entrenched, complex, and current social problems.

Human Services General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

(BIO 1100 AND BIO 1100L recommended)

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

OR HIST 1016 - US History from Reconstruction *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Human Services Program Core (27 credits)

SOC 1001 - Principles of Sociology *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
HSER 2242 - Human Services Skills and Methods *Credits: 3*
OR HSER 2247 - Change Theory and Strategies in Behavioral Health Care *Credits: 3*
HSER 2420 - Group and Interpersonal Relations *Credits: 3*
HSER 2106 - Professional, Legal, and Ethical Issues in Human Services *Credits: 3*
HSER 2696 - Human Services Field Work I *Credits: 3*
OR HSER 2543 - Social and Contemporary Issues in Human Services *Credits: 3*
HSER 2351 - Working with Individuals and Families *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*

Mental Health Courses (12 credits)

ANTH 1018 - Health, Healing, and Culture *Credits: 3*
HSER 1034 - Introduction to the Mental Health System *Credits: 3*
HSER 2800 - Foundations of Research Methods in Human Services and Education *Credits: 3*
PSY 2045 - Abnormal Psychology *Credits: 3*

Total Credits: 61-62

Human Services: Social Work Studies - TAP/CSCU Transfer Degree, AA (HSSW-AA-TAP)

Admission to CSU Social Work programs is highly competitive. This A.A. degree does NOT guarantee admission to any CSU Social Work degree program. With this degree, you will be able to transfer to any CSU and apply to the following majors at the following campuses:

Central Connecticut State University Social Work, B.A.
 Eastern Connecticut State University Social Work, B.A.
 Southern Connecticut State University Social Work, B.S.
 Western Connecticut State University Social Work, B.A.

The Social Work Studies A.A. degree is the first degree towards becoming a State of CT certified social worker.

Learning Outcomes:

- Students who complete this degree are prepared to transfer to a four-year CSU university with junior status.
- Students who complete this degree are prepared to apply for admission to a CSU Social Work B.A. degree program.

In addition to the above, students who complete this program of study should be able to:

- Identify the historical and philosophical foundations of social welfare
- Apply the ecological system perspective to micro-, meso-, and macro- client systems
- Demonstrate basic assessment and problem-solving skills to a range of micro-, meso-, and macrosystems problems
- Identify and resolve ethical dilemmas
- Develop and sustain professional relationships with diverse populations
- Demonstrate active listening, verbal, non-verbal, and written communication skills with diverse populations 7. Self-evaluate thoughts, feelings and behaviors to ensure professional conduct.

How to apply to a CSU Social Work Program:

For admission to CCSU's Social Work program

1. Minimum overall GPA of 2.00, which includes both CCSU grades and grades for courses taken at other institutions.
2. Minimum overall GPA of 2.50 for the following introductory Social Work courses and related requirements (Program GPA) Community College SOC 2001, HSER 1001/SOC 235, SOC 1001, BIO 115 , POLS 1002, & MATH 1200/MAT 201/MATH 1201/MAT 168; AND CCSU SW 225, SW 227, SOC 233, & ECON 200. Each of these courses must be completed with a minimum grade of C.
3. A minimum score of 2 (emerging) on the Potential for Professional Competence for Generalist Social Work Practice Scale in each of the following CSWE competencies 2.1.1, 2.1.3, and 2.1.4.
4. A minimum score of 3 or higher in every category of the Volunteer Experience Evaluation for HSER 1001/SOC 235 and SW 227.
5. Minimum scores of 3 on the Professional Social Work Disposition Rubric for SW 225, HSER 1001/SOC 235, and SW 227.

The Transfer Student Reference Form may be substituted for field experiences from other colleges. Applications to the Social Work Program are accepted three times a year with deadlines of August 1st, October 1st, and March 1st. Students must submit an admission portfolio and have an interview with the Social Work faculty. The ideal time to apply to the Program is when the applicant is enrolled in SW 227 at CCSU. For TAP Transfer Students, this should be in the first semester at CCSU.

For admission to ECSU's Social Work program

Admission to the Social Work Program is competitive and is not guaranteed by admission to Eastern Connecticut State University. Applications for the social work major are due on January 31 each year for students expecting to graduate in May, two years following application. Applications received after that date are reviewed as space is available in the junior class. The online application must be completed in one session (you cannot log out of your computer, save your work, or return to a survey that has been submitted).

You should prepare the following documents to be uploaded with your application:

1. Application Essay
2. Resume (optional)

3. Supplemental information regarding community standards (if relevant)
4. Transcripts from all higher education institutions attended (see instructions)
5. Professional Reference

For admission to SCSU's Social Work program

Students interested in majoring in social work must complete a two-step admission process. Initially, students must be accepted into the University by the Admissions Office. Then, application is made for admission to the Bachelor of Social Work Program in the spring semester prior to the fall semester in which students anticipate enrolling in 300-level social work courses. Applications are available on the Department of Social Work website. The Department of Social Work admissions application deadline is the 1st of March. Students who plan to apply to both SCSU and the BSW Program for a Fall semester date may need to complete both admission processes simultaneously. For optimal consideration for acceptance into the program, you must express your intent to apply prior to the March 1 admissions application deadline by emailing the BSW Coordinator.

For admission to WCSU's Social Work program

Social work majors must earn at least a "C+" in all designated major courses to have the course credit apply to the degree program. Students must apply for junior and senior program status following a group advisement session (for potential Juniors in late fall preceding the registration period for spring semester; for potential Seniors in spring semester of the junior year). Transfer students are required to interview with the department chair, the student must arrange the meeting and meet the above criteria. The Junior standing class is limited to 45 Social Work majors. If applications that meet minimum requirements exceed 45 majors, the 45 students with the top GPAs in Social Work Major Requirements will be given first preference, with university GPA serving as Social Work GPA tiebreaker.

Framework Courses (31-33 credits)

ENG 1010 - Composition *Credits: 3*
MATH 1200 - Statistics I *Credits: 3*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
 OR BIO 1100 - Principles of the Human Body *Credits: 3*
 AND BIO 1100L - Principles of the Human Body Lab *Credits: 1*
SOC 1001 - Principles of Sociology *Credits: 3*
Elective WRIX - Written Communication II Course *Credits: 3*
Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
Elective HISX - Historical Knowledge Course *Credits: 3*
Elective ORAX - Oral Communication Course *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30 credits)

Elective GLKY - Global Knowledge Course *Credits: 3*
Elective CRTY - Creativity Course *Credits: 3*
PSY 1011 - General Psychology I *Credits: 3*
SOC 2001 - Contemporary Social Issues *Credits: 3*
POLS 1002 - American Government *Credits: 3*
ANTH 1005 - Introduction to Cultural Anthropology *Credits: 3*
HSER 1001 - Introduction to Human Services *Credits: 3*
 OR SOC* 235 - Introduction to Social Welfare *Credits: 3*
Unrestricted Elective *Credits: 3 (Recommended course SOC 2010)*
Directed Electives: Choose 1 or 2 courses

- POLS 1022 - Politics of Social Welfare *Credits: 3*
- PSY 1012 - Health Psychology *Credits: 3*
- PSY 2045 - Abnormal Psychology *Credits: 3*
- SOC 2010 - Sociology of the Family *Credits: 3*
- SOC 2020 - Racial and Ethnic Diversity *Credits: 3*
- SOC 2025 - Death and Dying *Credits: 3*
- SOC 2085 - Community Organization *Credits: 3*
- HSER 1535 - Child Advocacy in Human Services *Credits: 3*
- HSER 1643 - Disabilities and Mental Health *Credits: 3*

- HSER 1034 - Introduction to the Mental Health System *Credits: 3*
- HSER 1040 - Introduction to Behavioral Healthcare *Credits: 3*
- HSER 1070 - Introduction to Gerontology *Credits: 3*
- HSER 2247 - Change Theory and Strategies in Behavioral Health Care *Credits: 3*
- HSER 2543 - Social and Contemporary Issues in Human Services *Credits: 3*
- HSER 2002 - Introduction to Counseling and Interviewing *Credits: 3*
- HSER 2420 - Group and Interpersonal Relations *Credits: 3*
- HSER 2106 - Professional, Legal, and Ethical Issues in Human Services *Credits: 3*
- HSER 2441 - Human Services Agencies and Organizations *Credits: 3*
- HSER 2242 - Human Services Skills and Methods *Credits: 3*
- HSER 2600 - Supervision and Management in Human Services *Credits: 3*
- HSER 2351 - Working with Individuals and Families *Credits: 3*
- HSER 2696 - Human Services Field Work I *Credits: 3*
- HSER 2690 - Behavioral Health Field Placement *Credits: 3*

Total Credits 61-63

Interior Design Career Program, AAS (IDCP-AAS)

The Interior Design program is designed to develop technical skills, creativity, and an understanding of all aspects of interior design. The graduates of the program will be qualified by education, experience, and examination to enhance the function and quality of interior spaces for the purpose of improving the quality of life, increasing productivity, and protecting the health, safety, and welfare of the public.

Learning Outcomes:

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

- Analyze client's needs, goals, and life safety requirements.
- Integrate findings with knowledge of interior design.
- Formulate preliminary design concepts that are aesthetic, appropriate, and functional, and in accordance with codes and standards.
- Develop and present final design recommendations through appropriate presentation media.
- Prepare working drawings and specifications for non-load bearing interior construction, reflected ceiling plans, lighting, interior detailing, materials, finishes, space planning, furnishings, fixtures, and equipment in compliance with universal accessibility and sustainability, guidelines and all applicable codes.
- Collaborate with professional services of other licensed practitioners in the technical areas of mechanical, electrical, and load-bearing design as required for regulatory approval.
- Prepare and administer bids and contract documents as the client's agent, and construction scheduling.
- Review and evaluate design solutions during implementation and upon completion.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

ENV 1010 - Introduction to Environmental Science *Credits: 3*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (41 credits)

ARCH 1005 - Architecture Fundamentals I *Credits: 4*

ARCH 1002 - Architecture of the World *Credits: 3*

OR ARTH 1013 - Architecture of the World *Credits: 3*

ARCH 1008 - Construction Materials & Methods *Credits: 3*

ARCH 2040 - Environmental Systems *Credits: 3*

ARCH 2030 - CAD 3D Architectural Parametric *Credits: 4*

CAD 2204 - CAD 3D Architectural *Credits: 3*

INTD 1001 - Interior Design Studio I *Credits: 4*

INTD 1020 - Materials Textiles and Finishes *Credits: 3*

INTD 2001 - Interior Design Studio II *Credits: 4*

INTD 2002 - Interior Design Studio III *Credits: 4*

INTD 1021 - Color and Lighting for Design *Credits: 3*

OR CAD 1330 - 2D CAD (AutoCAD) *Credits: 3*

INTD 2090 - Interior Design Internship *Credits: 3*

Total Credits: 62-63

Interpreter Training Program, AS (INPR-AS)

The Interpreter Training Program (ITP) (American Sign Language) ASL/English is a program of study leading to an Associate in Science degree. The purpose of the program is to provide quality interpreter education in a multidisciplinary and interdisciplinary endeavor focusing on preparing student interpreters of ASL and English. This professional career program is a comprehensive, sequenced, and integrated series of courses that is intended to provide students with the necessary techniques and skills required for professional work as interpreters at the entry level. The Registry of Interpreters for the Deaf (RID) is the organization that oversees the certification of interpreters, this includes the former National Association for the Deaf (NAD) certification. The National Interpreter Certification (NIC) process includes the knowledge exam which can be taken at anytime and the performance exam which requires a Bachelor's degree. More information and requirements can be found at www.rid.org. Graduation from the Northwestern Campus of CT State Community College ITP does not guarantee students will be granted certification.

Learning Outcomes:

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

- Effectively interpret between English and American Sign Language.
- Appropriately apply the principles of the RID/NAD Code of Professional Conduct to interpreting situations.
- Mediate cultural differences between Deaf and hearing consumers with sensitivity to and awareness of American Deaf Culture.
- Educate others with information and available resources for people who are Deaf and/or Hard of Hearing.

The Interpreter Training Program is an intensive program of study that requires commitment through the summer session as well as the fall and spring semesters. The skills required for becoming an interpreter for the Deaf rely on a secure foundation of ASL linguistics. The preparatory courses are structured so that students build a foundation of the linguistics of ASL to communicate on an advanced level with native ASL signers. This level of proficiency is essential to the subsequent courses required for the ITP. Students must possess a reliable computer and internet connection to complete the course requirements.

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (49 credits)

ASL 1001 - American Sign Language I *Credits: 3*

ASL 1002 - American Sign Language II *Credits: 3*

ASL 2001 - American Sign Language III *Credits: 3*

ASL 2002 - American Sign Language IV *Credits: 3*

ASL 2005 - Linguistics of American Sign Language *Credits: 3*

ASL 2006 - Advanced ASL for Interpreters *Credits: 4*

DSC 1001 - Visual Gestural Communication *Credits: 3*

DSC 1012 - Deaf Communities: Facts and Perspectives *Credits: 3*

INTR 1001 - Pre-Interpreting Skills *Credits: 3*

INTR 1021 - Professional Standards in Interpreting *Credits: 3*

INTR 2013 - Interpreting I: Consecutive *Credits: 4*

INTR 2014 - Sign-to-Voice *Credits: 3*

INTR 2113 - Interpreting II: Simultaneous *Credits: 4*

INTR 2034 - Educational Interpreting with Specialized Populations *Credits: 3*

INTR 2095 - Interpreting Practicum & Seminar *Credits: 4*

Total Credits: 70-72

Italian Studies - TAP/CSCU Transfer Degree, AA (ITAL-AA-TAP)

The CSCU Pathway Transfer Degree in Italian Studies, A.A. prepares students to continue their education at any Connecticut State University (CSU) leading to a baccalaureate degree in Italian. It is designed to strengthen and develop skills in Italian expression: critical reading, writing, thinking, listening, speaking, and research through the study of language, literature, culture, and related disciplines.

Learning Outcomes:

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

- Demonstrate listening proficiency in the target language at the Intermediate Low level as per the American Council on the Teaching of Foreign Languages guidelines*.
- Demonstrate speaking proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate reading proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate writing proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate analytic, interpretative, and critical thinking skills regarding language and the communication process.
- Recognize that understanding other cultures will enrich one's own life and result in lifelong learning.
- Apply critical thinking skills to the understanding of cultural differences and similarities.

*<https://www.actfl.org/publications/guidelines-and-manuals/actfl-proficiency-guidelines-2012>

This program is transfer focused. It is designed to prepare students with an interest in Italian studies to transfer to a four-year college or university at the junior level in pursuit of a bachelor's degree.

With this degree students will be able to transfer to the following majors:

At Central Connecticut State University:

- Italian B.A.
- Italian B.S.ED. (7-12)

At Southern Connecticut State University:

- Italian B.A.
- Italian 7-12, B.S.
- Italian B.S.

Framework Courses (30-34 credits)

ENG 1010 - Composition *Credits: 3*
 Elective QUAX - Quantitative Reasoning Course *Credits: 3-4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 Elective WRIX - Written Communication II Course *Credits: 3*
 Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*
 Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 COMM 1301 - Public Speaking *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30 credits)

ITAL 1011 - Elementary Italian I *Credits: 4*
 ITAL 1012 - Elementary Italian II *Credits: 4*
 ITAL 2011 - Intermediate Italian I *Credits: 4*
 ITAL 2012 - Intermediate Italian II *Credits: 4*
 Elective GLKY - Global Knowledge Course *Credits: 3*
 Recommended COMM 1305, GEOG 1010, or HUM 1019
 Elective CRTY - Creativity Course *Credits: 3*
 Unrestricted electives: Students who begin Italian at a higher level than ITAL 1011 will receive additional unrestricted electives. *Credits: 8-20*
Students should consider beginning work on minor requirements of some CSUs. They may also complete other General Education requirements (for CCSU, WCSU, SCSU, and CO-but NOT ECSU).

Total Credits: 61-64

Liberal Arts & Sciences, AA (LASC-AA)

The Liberal Arts and Science Associate in Arts degree program provides students with a broad background that prepares them for transfer to a bachelor's degree program at a four-year college or university. Students will take a wide range of courses with an emphasis on fulfilling general education or similar requirements at four-year colleges and universities. The Associate of Arts (A.A.) emphasizes courses in the humanities, arts, and social sciences.

Program Learning Outcomes:

- Communicate clearly and persuasively both in written and oral forms, including in ways that involve and document outside sources.
- Analyze literary, artistic, or philosophical works of world cultures.
- Analyze changes and developments in history, including their causes and effects.
- Apply social scientific theories to understand human behavior and world events.
- Use mathematical tools and technology to create mathematical models.
- Describe scientific principles and apply them to understand the physical world.
- Identify the various ways in which diversity exists in our world, such as through analyzing artistic and literary works, historical examples, statistical information, or present-day cases.

General Education Courses (30-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1100 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (30-32 credits)

Elective ARTS - Visual or Performing Arts Elective *Credits: 3*

Elective BHEL - Behavioral Science Elective *Credits: 3*

OR Elective SSCI - Social Science Elective *Credits: 3*

Elective HUM - Humanities Elective *Credits: 3*

Elective FLNG - Foreign Language Elective *Credits: 6-8*

The completion of three years of study up to the third level in a single language at the high school level waives the language requirement for the Liberal Arts and Science, A.A. Degree. If a student can waive the required 6-8 credits of a language, they must substitute 6-8 credits of open elective courses at the 1000 level or above.

Transfer institutions can vary widely in their foreign language requirements. Additionally, Sign language courses do not transfer in this requirement at all schools. For example, Sign language courses fulfill this requirement at CCSU, but not ECSU. Before selecting a language sequence, check the specific transfer requirements for the colleges and universities to which you are considering transferring and/or consult an advisor.

Elective LART - Liberal Arts Elective *Credits: 6 (choose two courses at the 1000 level)*

Elective OPEN - Any 1000 or 2000 level course(s) *Credits: 9 (Choose 3 courses)*

Total Credits: 60-66

Diversity Requirement

Students must take two courses totaling 6 credits or more designated to meet the CT State Diversity requirements. This requirement can be met with General Education courses and/or with Liberal Arts & Science program or elective courses.

Liberal Arts & Sciences, AS (LASC-AS)

The Liberal Arts and Science Associate in Science degree program provides students with a broad background that prepares them for transfer to a bachelor's degree program at four-year college or university. Students will take a wide range of courses with an emphasis on fulfilling general education or similar requirements at four-year colleges and universities. The Associate of Science (A.S.) emphasizes courses in the sciences and mathematics.

Program Learning Outcomes:

- Communicate clearly and persuasively both in written and oral forms, including in ways that involve and document outside sources.
- Analyze literary, artistic or philosophical works of world cultures.
- Analyze changes and developments in history, including their causes and effects.
- Apply social scientific theories to understand human behavior and world events.
- Use mathematical tools and technology to create mathematical models.
- Describe scientific principles and apply them to understand the physical world.
- Identify the various ways in which diversity exists in our world, such as through analyzing artistic and literary works, historical examples, statistical information, or present-day cases.

General Education Courses (32-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

OR MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

OR MATH 1610 - Precalculus *Credits: 4*

OR MATH 2600 - Calculus I *Credits: 4*

OR MATH 2610 - Calculus II *Credits: 4*

(pending spring 2023 governance approval)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Choose One Science Sequence

- BIO 1210 - General Biology I *Credits: 4* **AND** BIO 1220 - General Biology II *Credits: 4*
- CHEM 1210 - General Chemistry I *Credits: 4* **AND** CHEM 1220 - General Chemistry II *Credits: 4*
- PHYS 1201 - General Physics I *Credits: 4* **AND** PHYS 1202 - General Physics II *Credits: 4*
- PHYS 2201 - Calculus-Based Physics I *Credits: 4* **AND** PHYS 2202 - Calculus-Based Physics II *Credits: 4*

Program Courses (30-33 credits)

All courses must be at the 1000 level or above.

- Choose one additional course in Arts: ART, ARTH, MUS, or THR *Credits: 3*
- Choose one additional course in Social/Behavioral Science: *Credits: 3*
ANTH, ECON, GEOG, POLS, PSYC, SOC, WMS
- Choose one additional course in Humanities: *Credits: 3*
ENG, HIST, PHIL, HUM, COMM, INDS, ARAB, CHNS, FREN, GERM, ITAL, JAPN, LATN, RUSN, SPAN, SGN, ASL
- Choose TWO additional courses in Science, Mathematics, or Computer Science: *Credits: 6-8*
ASTR, BIO, CHEM, CSC, EARTH, ENV, GEOL, MATH, OCEN, PHYS, SCI
- Choose one additional course in MATH at level 1600 or higher: *Credits: 3-4*
MATH 1600, MATH 1610, MATH 2600, MATH 2610 sequence **STRONGLY** suggested
- **Choose 12 Credits of 1000-level or Above Electives** *Credits: 12*
Remaining Unrestricted Electives- You should use these credits to take courses that prepare you for requirements in your transfer degree program. **You should also consider using unrestricted electives to meet foreign language requirements if you do not already meet the foreign language requirement at your transfer institution.**

Total Credits: 62-67

Diversity Requirement

Students must take two courses totaling 6 credits or more designated to meet the CT State Diversity requirements. This requirement can be met with General Education courses and/or with Liberal Arts & Science program courses and electives.

Library Technology Certificate (LBTC-CC)

This one-of-a-kind certificate is 27- credit, fully online, recognized by the American Library Association, and is the only one of its kind in New England. This program of study is an approved provider of library technology courses for the certification awarded by The American Library Association (ALA). The program of study ensures that students gain the knowledge required for successful employment in 21st century libraries. With 100% of its courses online, scheduling is flexible. The library technology certificate is a perfect program for anyone who wants to start a career as library staff involved in library support and operations or broadening their library technology knowledge and skills. While it does not prepare individuals for all levels of employment that require a library science graduate degree, our graduates are well prepared to perform a wide range of library skills and services and the certificate is highly regarded in the library community.

Learning Outcomes:

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

- explain the mission of libraries, departments and services of libraries, and basic library policies.
- demonstrate good customer service and communication skills.
- recognize and explain common library terminology.
- apply knowledge of basic technology skills (including online computer automation systems; word processing, email, Internet and other productivity software; and internet and database searching techniques) to assist patrons in a rapidly changing technological environment.
- explain basic reference and information resources and referral procedures.
- explain basic library classification systems and use them to catalog and retrieve materials.
- demonstrate appropriate methods and techniques for material processing, storage, and preservation.

Certification

The Library Support Staff Certification Program (LSSC) from the American Library Association - Allied Professional Association (ALA-APA) recognizes Three Rivers Community College as one of the few national academic providers of approved Library Technology courses for support staff. Three Rivers Community College will continue to hold this recognition up until the point of the merger. At the time of the merger, the recognition will be transferred over to CT State Community College.

Required Courses

ENG 1010 - Composition *Credits: 3* 3 Composition

LIBR 1001 - Introduction to Library Public Services *Credits: 3*

LIBR 1004 - Introduction to Reference Services *Credits: 3*

LIBR 1016 - Cataloging and Classification *Credits: 3*

LIBR 1023 - Introduction to Library Tech Services *Credits: 3*

LIBR 1025 - Digital Media *Credits: 3*

LIBR 1027 - Management and Teamwork *Credits: 3*

LIBR 2001 - Digital Information and Technology *Credits: 3*

LIBR 1020 - Library Youth Services *Credits: 3*

OR LIBR 2095 - Supervised Field Placement *Credits: 3* (LIBR 2095 required for students without library employment experience)

Total Credits: 27

Management Information Systems Certificate (MINF-CC)

The MIS certificate will introduce students to an overview of programming, database and various MIS classes that can be applied to various business environments. Courses are designed to offer students positions in industry, advancement of career and will also provide a solid foundation for continuation of a two-year associate degree in Computer Information Systems Technology.

Certificate Learning Outcomes:

- Acquire a familiarization with terminology and structure of a programming language.
- Demonstrate the ability to use software tools for program development.
- Demonstrate a basic understanding of relational database concepts.
- Preparedness to advance one's career, or move on to more advanced study in MIS, CIS, or related fields.

Required Courses

CIS 1001 - Introduction to Computers *Credits: 3*

OR CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CSC 1211 - Java I *Credits: 3*

OR CSC 1205 - Visual Basic *Credits: 3*

OR CSC 1203 - Python Fundamentals *Credits: 3*

CSC 2235 - Introduction to Database Design *Credits: 3*

OR CSA 2112 - Database Applications *Credits: 3*

Directed Electives - Choose 3 courses (9 credits)

- CIS 1103 - Computer Ethics *Credits: 3*
- CIS 1142 - Information Systems in Organizations *Credits: 3*
- CIS 1143 - Project Management *Credits: 3*
- CIS 2144 - Systems Analysis and Design *Credits: 3*
- CSA 1111 - Spreadsheet Applications *Credits: 3*
- CST 1111 - Computer Hardware *Credits: 4*
- CST 1121 - Networking I *Credits: 3*
- CYS 2111 - Network Security *Credits: 3*
- ACCT Elective - Any ACCT course *Credits: 3*

Total Credits: 18

Management Information Systems, AS (MINF-AS)

The Management Information Systems program combines Business Management and Information Systems curricula. This merging of business and technical coursework gives students the necessary technical and communications skills as they are applied within the business environment, which offers a stronger background and degree of preparation for the workforce. This curriculum combines general education, business and computer courses that are normally taken as a part of a bachelor's degree program at a four-year school. Courses in this program will transfer to four-year schools in the Management Information Systems and/or computer-related degree programs.

After completing this degree, graduates may then choose to continue their education through a bachelor's degree program in Management Information Systems at Central Connecticut State University or other state universities through articulation agreements.

Learning Outcomes:

Upon successful completion of all Management Information Systems degree program requirements, graduates will

- Demonstrate relevant content knowledge of core business disciplines, accounting, business law, management, and business communications.
- Define information systems and describe their importance to organizations.
- Describe the basic methodologies used to develop and implement information systems.
- Utilize business application software including spreadsheet, database, presentation, and word processing for business decision-making and analysis.
- Recognize the importance of working in teams to achieve common goals and collaborate effectively in group assignments.
- Apply current technology, analyze business problems, and design and develop software.
- Communicate using network technologies, access information via the Internet, and understand information integrity and security issues.
- Gain awareness of legal, regulatory, and ethical issues facing the profession, awareness of information technology and network security, and understanding the methods for creating and managing change in organizations

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39-40 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

CIS 1141 - Introduction to Management Information Systems *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BMGT 2040 - Managerial Communications *Credits: 3*

OR BUSN 2100 - Business Communications *Credits: 3*

Programming Elective - Any computer programming course *Credits: 3-4*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

Designated Electives - Choose 12 credits

ECON 1002 - Principles of Microeconomics *Credits: 3*

CIS 1143 - Project Management *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BMGT 2100 - Organizational Behavior *Credits: 3*

BUSN 2195 - Business Co-op Internship *Credits: 3*

OR CIS 2994 - Coop Ed/Work Experience *Credits: 3*

BFIN 2100 - Principles of Finance *Credits: 3*

Technical Elective: CSA, CSC, CST, MATH *Credits: 3*

Total Credits: 60-63

Massage Therapy, AS (MASG-AS)

The Massage Therapy major entails 39 credits of specific Course requirements for Massage Therapy. These courses include hand-on practicum classes, Anatomy & Physiology, two pathology classes, Musculoskeletal Anatomy, Kinesiology, Massage Theory class and Business/ Ethics. In addition, students are required to take 21-25 credits of General Education Core requirements to obtain the Associates in Science for Massage Therapy. Students perform 100 hours of hands-on in the student massage clinic. Massage therapists work in a variety of settings including but not limited to: self-employment, day spas, massage clinics, chiropractic offices, and hospital settings. Massage therapy techniques may also vary from relaxation to sports and rehabilitation.

Learning Outcomes:

- Perform a full body massage using and integrating effleurage, petrissage, vibration, friction and tapotement.
- Demonstrate knowledge of Anatomy and Physiology.
- Understand the origin, insertion and actions of the muscles of the upper and lower body.
- Understand Pathologies and how to work safely and effectively with those using massage therapy.
- Demonstrate knowledge of the principles of Massage Therapy.
- Understand the physiological effects of massage therapy on all of the 11 body systems.
- Demonstrate knowledge and understanding of massage ethics and how to handle ethical dilemmas.
- Understand business practices of massage therapy; understand the various types of employment.
- Demonstrate the kinesthetic concepts and how they apply to massage therapy

Massage Therapy is offered at the Asnuntuck campus in the CT State Community College. The Massage Therapy Program prepares students to take the Massage and Bodywork Licensing exam (MBLEx), which is required for CT State Licensure. This exam is not offered on the Asnuntuck campus, it is through an independent testing site. Students will be given all information in the program on how to register. In addition, this program meets and exceeds the State of Connecticut Department of Public Health's educational hour requirements.

Employment Information: Massage Therapists will be employed in Massage Therapy clinics, spas, and other healthcare facilities. Upon passing the national certification exam (MBLEx), students will be able to work in Connecticut and Massachusetts and obtain a license to perform all duties of a Massage Therapist. National starting wage varies from \$21,810 to \$80,630 (U.S. Department of Labor Statistics).

Graduation Information: A cumulative 2.0 GPA is required to graduate from this program. In addition, students must earn at least a C- in all program (MASG) courses.

General Education Courses (21-24 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1000 or higher *Credits: 3-4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 Elective SCRX - Scientific Reasoning Course *Credits: 3-4*
 OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 OR Elective HISX - Historical Knowledge Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 OR Elective WRIX - Written Communication II Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

MASG 1016 - Anatomy and Physiology for Healthcare *Credits: 4*
 MASG 1001 - Massage Theory and Practice *Credits: 3*
 MASG 1004 - Massage Therapy I *Credits: 4*
 MASG 1033 - Pathology I *Credits: 3*
 MASG 1104 - Massage Therapy II *Credits: 4*
 MASG 1022 - Musculoskeletal Anatomy *Credits: 4*
 MASG 2033 - Pathology II *Credits: 3*
 MASG 1070 - Massage and Business Ethics *Credits: 3*
 MASG 2022 - Kinesiology *Credits: 3*
 MASG 2004 - Massage Therapy III *Credits: 4*
 MASG 2095 - Clinical Internship *Credits: 4*
 OR MASG 2090 - Massage Therapy Capstone Seminar *Credits: 4*

Total Credits: 60-63

Mathematics Studies - TAP/CSCU Transfer Degree, AA (MATH-AA-TAP)

The Mathematics Studies program fosters mathematical understanding, with applications to real-life scenarios, of branches of study including geometry, algebra, and calculus. The goal of the program is to provide a background in mathematics that will prepare students for the rigors of a four-year math degree. After completion, students will transfer seamlessly into a Bachelor of Mathematics Studies with a junior level status in the receiving CSCU (Connecticut State Colleges & Universities) institution as part of the CSCU transfer ticket program.

Learning Outcomes:

Students completing the CSCU Mathematics Studies Pathway and earning an Associate Degree will be able to:

- Read, interpret, and effectively communicate mathematics both verbally and in writing.
- Use appropriate technology to promote understanding and solve mathematical problems.
- Acquire and demonstrate substantial knowledge from Algebra and Calculus.
- Analyze, model, and solve real world problems, using various areas of mathematics.
- Think analytically and critically and be able to formulate problems, solve them, and interpret their solutions.
- Demonstrate the ability to use and understand multiple representations (including graphical, numerical and analytical) of mathematical concepts.

Students who earn an Associate of Arts degree in Mathematics Studies from the Connecticut State Community College can transfer their degree to either the Central Connecticut State University (CCSU), Eastern Connecticut State University (ECSU), Southern Connecticut State University (SCSU), Western Connecticut State University (WCSU), or Charter Oak State College (COSC). Students will be credited as meeting the General Education requirements. Students must remain in the corresponding Mathematics major program for the following bachelor's degrees:

CCSU

- Bachelor of Arts (B.A.) Mathematics
- B.A. Mathematics - Actuarial Science Specialization
- B.A. Mathematics - Statistics Specialization

ECSU

- B.A. Mathematics - Structures & Applications
- B.A. Mathematics - Math for Teachers
- Bachelor of Science (B.S.) Mathematics - Structures & Applications
- B.S. Mathematics - Actuarial Science
- B.S. Mathematics - Data Science

SCSU

- B.A. Mathematics
- B.S. Mathematics - Concentration: Applied

WCSU

- B.A. Mathematics
- B.A. Mathematics - Computer Science Option

COSC

- B.A. General Studies: Mathematics Concentration

Framework Courses (33-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Choose One Science Sequence:

- BIO 1210 - General Biology I *Credits: 4* **AND** BIO 1220 - General Biology II *Credits: 4*

- CHEM 1210 - General Chemistry I *Credits: 4* **AND** CHEM 1220 - General Chemistry II *Credits: 4*
- PHYS 1201 - General Physics I *Credits: 4* **AND** PHYS 1202 - General Physics II *Credits: 4*
- PHYS 2201 - Calculus-Based Physics I *Credits: 4* **AND** PHYS 2202 - Calculus-Based Physics II *Credits: 4*

Pathway Courses (27 credits)

MATH 2610 - Calculus II *Credits: 4*

MATH 2620 - Calculus III: Multivariable *Credits: 4*

MATH 2621 - Linear Algebra *Credits: 4*

OR MATH 2622 - Differential Equations *Credits: 4*

MATH 2623 - Foundations of Advanced Mathematics *Credits: 4*

One CSC designated programming language course: CSC 1203 or CSC 1211 *Credits: 3*

Electives - Students should consider beginning or completing work on foreign language requirements not already met in high school and beginning work on a minor (required at CCSU for the general Mathematics B.A. - up to 9 credits can be completed at the community college.) They may also complete other General Education requirements. *Credits: 8*

Total Credits: 60-61

Mechanical Engineering Technology, AS (MCET-AS)

CT State Community College's Mechanical Engineering Technology 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.

The CT State Community College Mechanical Engineering Technology (MET) 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.

Learning Outcomes

I. Program Educational Objectives (PEOs)

Graduates will:

1. possess the educational background to do one or both of the following:
 - employment in Mechanical Engineering Technology or another related field.
 - 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.

II. Student Outcomes

After successful completion of the program, students will demonstrate:

1. an ability to apply principles of mathematics, science, and technology to solve well-defined engineering problems.
2. an ability to formulate design solutions to well-defined technical problems.
3. an ability to apply written, oral and graphical communication techniques.
4. an ability to conduct experiments, test theories, and analyze and interpret results.
5. An ability to function effectively in teams.

As a result of the training and preparation provided, the Mechanical Engineering Technology student is ready to be employed by industry or to continue their education towards a bachelor's degree upon graduation. Many students do both - they work in industry while they continue their education.

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, and successful in their pursuit of their bachelor's degree. 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. Our alumni have graduated with a bachelor's degree from Central Connecticut State University, University of New Haven, Fairfield University and other local engineering and engineering technology programs.

General Education Courses (23-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

PHYS 1201 - General Physics I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
OR ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39-40 credits)

TECH 1010 - Introduction to Engineering Technology *Credits: 3*
MATH 2600 - Calculus I *Credits: 4*
CAD 1330 - 2D CAD (AutoCAD) *Credits: 3*
CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*
EETA 1002 - Electrical Applications *Credits: 3*
MFG 1004 - Manufacturing Processes *Credits: 4*
MECH 1014 - Statics *Credits: 3*
MECH 2071 - Fluid Mechanics *Credits: 4*
OR MECH 2040 - Fundamentals of Heat and Thermodynamics *Credits: 4*
MECH 2051 - Materials Strength *Credits: 4*
MECH 2038 - Dynamics *Credits: 4*
Technology Elective *Credits: 3-4*

Any 2000-Level or higher in MECH, MFG, MATH, CAD, PHYS, EGR, EET or EETA. *Courses already used for program requirements don't count.*

Total Credits: 62-63

Medical Assisting Certificate (MDAS-CC)

The Medical Assisting Certificate prepares students for entry level positions as multi-skilled practitioners, there are career positions available in medical offices, hospitals, hospice care, laboratories, ambulatory care centers, and more. The program provides the student the opportunity to acquire clinical and administrative knowledge and skills in the classroom, the laboratory, and during practicum/externship.

Learning Outcomes:

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

- Apply for a national medical assisting certification examination.
- Perform all medical assisting skills at entry level competency.
- Become a professional collaborative member of the health care team delivering safe quality care
- Will show respect, empathy, objectivity, and accuracy with written and verbal communication.

This is not a selective admissions program; however, students must meet course prerequisite requirements to progress in the program. To progress in this program, students must obtain a grade of 'C' or higher in all MED courses.

This program may help prepare students for stackable credentials. With additional experience and/or coursework, students may qualify to take a variety of certification exams. Completion of this certificate can place the student into the Associate Degree program with at least 50% of the credits completed.

The Medical Assistant Certificate Program at Norwalk Community College is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs (CAAHEP): 9355 113th St. N, #7709, Seminole, FL 33775, Phone: 727-210-2350, Fax: 727-210-2354, www.caahep.org Medical Assisting Education Review Board (MAERB): 2020 N. California Ave., #213 Suite 7 Chicago, IL 60647, 1-800-228-2262, www.maerb.org

Required Courses

- MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*
- MDAS 1011 - Administrative Medical Assisting *Credits: 3*
- MDAS 1012 - Medical Insurance and Billing *Credits: 3*
- MDAS 1033 - Clinical Medical Assisting *Credits: 4*
- MDAS 2016 - Electronic Medical Records *Credits: 3*
- MDAS 2042 - Clinical Procedures and Practices *Credits: 4*
- MDAS 2045 - Clinical Laboratory Procedures *Credits: 4*
- MDAS 2050 - Principles of Pharmacology *Credits: 3*
- MDAS 2095 - Medical Assisting Practicum/Externship *Credits: 4*

Total Credits: 31

Medical Assisting, AS (MDAS-AS)

The Medical Assisting Program provides students with a general education core complemented by focused medical assisting career courses in preparation for employment in the health care field. As multi-skilled practitioners, there are career positions available in medical offices, hospitals, hospice care, laboratories, ambulatory care centers, health insurance companies, and more. The program provides the student the opportunity to have a broader perspective and prepare for further educational opportunities in acquired clinical and administrative knowledge, skills, laboratory, and administrative careers during practicum/externship.

Learning Outcomes:

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

- *Apply for a national medical assisting certification examination*
- *Perform all medical assisting skills at entry level competency*
- *Become a professional collaborative member of the health care team delivering safe quality care*
- *Obtain strong oral, written, and interpersonal communication skills*
- *Use Critical thinking skills for handling issues related to effective patient care*
- *Develop social skills, respect, and empathy appropriate for dealing with patients from a variety of backgrounds and cultures*
- *Develop business skills for gathering and updating data accurately across a range of data management systems*

This is not a selective admissions program; however, students must meet course prerequisite requirements to progress in the program. To progress in this program, students must obtain a grade of 'C' or higher in all MED courses.

This program may help prepare students for stackable credentials. With additional experience and/or coursework, students may qualify to take a variety of certification exams.

The Medical Assisting Program at Capital Community College is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs (CAAHEP): 9355 113th St. N, #7709, Seminole, FL 33775, Phone: 727-210-2350, Fax: 727-210-2354, www.caahep.org Medical Assisting Education Review Board (MAERB): 2020 N. California Ave., #213 Suite 7 Chicago, IL 60647, 1-800-228-2262, www.maerb.org

General Education Courses (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1100 - Principles of the Human Body *Credits: 3 (or higher)*

PSY 1011 - General Psychology I *Credits: 3*

OR SOC 1001 - Principles of Sociology *Credits: 3*

OR ANTH 1005 - Introduction to Cultural Anthropology *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (37-39 credits)

MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*

MDAS 1011 - Administrative Medical Assisting *Credits: 3*

MDAS 1012 - Medical Insurance and Billing *Credits: 3*

MDAS 1033 - Clinical Medical Assisting *Credits: 4*

MDAS 2016 - Electronic Medical Records *Credits: 3*

MDAS 2042 - Clinical Procedures and Practices *Credits: 4*

MDAS 2045 - Clinical Laboratory Procedures *Credits: 4*

MDAS 2050 - Principles of Pharmacology *Credits: 3*

MDAS 2095 - Medical Assisting Practicum/Externship *Credits: 4*

Directed Electives in BIO, CHEM, COMM, CSA, CSC, HIMT, HLTH, HPE, MATH, MDAS, MLT, or PSYC *Credits: 5-7*

Total Credits: 60-62

Medical Laboratory Technician, AS (MLTC-AS)

The Medical Laboratory Technician (MLT) program at Quinebaug Valley Campus of CT State Community College prepares the student to work in a clinical laboratory setting. As the student progresses through the program they will obtain the required knowledge that will allow them to work in any of the laboratory departments in a clinical lab. The student will complete instructional courses in Clinical Hematology, Clinical Chemistry, Clinical Microbiology, Immunology, Immunochemistry, and Urinalysis/Body Fluids, as well as the general education-required courses. After completion of the program, the student will graduate with an Associate's Degree (A.S.) and be eligible to sit for the National Registry examinations. Graduates are well-prepared to enter the workforce immediately upon graduation and to begin their careers as laboratory professionals.

Learning Outcomes:

In addition to General Education Outcomes, learners who complete the Medical Laboratory Technician degree will:

- Apply knowledge of theory and principles related to body fluids, chemistry, hematology, microbiology, immunology, blood bank, and laboratory information systems;
- Apply knowledge of fundamental biological characteristics related to laboratory testing;
- Apply principles of performing basic laboratory procedures;
- Accurately perform venipuncture and capillary puncture procedures;
- Assess results by correlating laboratory data with clinical or other laboratory data;
- Evaluate laboratory data to recognize disease states;
- Prepare and process specimens, equipment, and instruments as well as controls and reagents;
- Perform with ethical and legal guidelines as well as within the profession's scope of practice.

Graduates of the degree program will be eligible to sit for the MLT American Society for Clinical Pathology (ASCP) national certification exam. Please see the Course of Study for specific information on the program's curriculum.

The Medical Laboratory Technician Program at Quinebaug Valley Community College [future Quinebaug Valley Campus of CT State Community College] is programmatically accredited by the Accrediting Bureau of Health Education Schools (ABHES), Accrediting Bureau of Health Education Schools, 6116 Executive Blvd., Suite 730, North Bethesda, MD 20852, Main: (301) 291-7550, Website: www.abhes.org, Email: info@abhes.org

Please note, this is a suggested plan of study for a full-time student. Part-time students may have their schedule adjusted accordingly. Students may need additional courses in remedial math and/or English.

Students must meet with their academic advisor prior to registering for any core MLT courses.

Students must earn a B- or better in all MLT courses prior to be eligible for the Clinical Internships. Students are required to show proof of physical examination; Measles, Mumps, and Rubella (MMR), varicella and Hepatitis B immunity; Tetanus shot within past 5 years; and a negative Tuberculosis (TB) test prior to being accepted for any internship courses. Internship sites may require students to undergo a criminal background check.

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1002 - Math for Science and Technology *Credits: 3*
 OR MATH 1003 - Elementary Statistics *Credits: 3*
 OR MATH 1010 - Intermediate Algebra *Credits: 3*
 (Pending Spring 2023 Governance Approval)
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (41 credits)

BIO 2350 - Microbiology *Credits: 4*
 CHEM 1110 - Concepts of Chemistry *Credits: 4*
 HLTH 1070 - Medical Law and Ethics *Credits: 3*
 MLT 1001 - Introduction to Clinical Laboratory/Principles of Lab Analysis *Credits: 3*

MLT 1002 - Urinalysis and Body Fluids *Credits: 2*
MLT 1041 - Phlebotomy for MLTs *Credits: 1*
MLT 2000 - Clinical Hematology and Coagulation *Credits: 4*
MLT 2002 - Clinical Chemistry *Credits: 4*
MLT 2004 - Clinical Immunology and Immunohematology *Credits: 4*
MLT 2006 - Clinical Microbiology *Credits: 4*
MLT 2095 - Clinical Internship I *Credits: 4*
MLT 2195 - Clinical Internship II *Credits: 4*

Total Credits: 63-64

Music Industry, AS (MUSI-AS)

The Music Industry Associate in Science Degree will provide students with a comprehensive experience and knowledge of the music industry for the purpose of immediate entry into the professional world and/or successful matriculation to a four-year music industry program.

Learning Outcomes:

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

- Apply a comprehensive knowledge of the principles and practices of managing musical artists and music institutions in an administrative/managerial function.
- Apply a comprehensive knowledge of the principles and practices of managing and administering commercial music/media institutions in sales, advertising, and publicity.
- Operate and manage a complete recording studio.
- Operate and execute all functions and processes involved in a recording project, from recording the artist, mixing and editing the music, to packaging compact disks for commercial distribution.
- Produce professional quality studio music through the use of music technologies and music software.
- Demonstrate proficiency in acoustic music theory.
- Demonstrate proficiency in piano/keyboard skills.
- Demonstrate a general knowledge of Western music.
- Communicate effectively, think critically, reason scientifically and quantitatively, and employ a global perspective.

The program has an official articulation agreement with the University of Bridgeport.

Students may also transfer to other schools such as the University of New Haven, Berklee College of Music, etc. but official articulation agreements for these schools are not currently in place.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1000 - Mathematics of Finance *Credits: 3 or higher*
 MUS 1001 - Music History & Appreciation I *Credits: 3*
 OR MUS 1002 - Music History & Appreciation II *Credits: 3*
 Elective SCRX - Scientific Reasoning Course *Credits: 3-4*
 OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 ENG 1020 - Composition II and Literature *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (41 credits)

COMM 1612 - Audio Production *Credits: 3*
 MUS 1004 - World Music *Credits: 3*
 OR MUS 1007 - Today's Music *Credits: 3*
 OR MUS 1008 - Today's Music: Gospel, Ragtime, Blues, Jazz *Credits: 3*
 OR MUS 1102 - Music Theory II *Credits: 3*
 MUS 1701 - Introduction to Music Business *Credits: 3*
 MUS 1100 - Fundamentals of Music *Credits: 3*
 OR MUS 1101 - Music Theory I *Credits: 3*
 MUS 1301 - Group Piano I *Credits: 1*
 MUS 1302 - Group Piano II *Credits: 1*
 MUS 1011 - Survey of Recording Industry *Credits: 3*
 MUS 1602 - Electronic Music Composition I *Credits: 3*
 MUS 2603 - Electronic Music Composition II *Credits: 3*
 MUS 1702 - Arts and Entertainment Management *Credits: 3*
 OR BMGT 2020 - Principles of Management *Credits: 3*
 MUS 2606 - Music for Film, TV, and Other Media *Credits: 3*
 MUS 2605 - Principles of Sound Recording *Credits: 3*
 MUS 2604 - Advanced Music Mixing and Processing *Credits: 3*
 MUS 2095 - Music Industry Practicum Project/Internship *Credits: 3*
 Open Elective *Credits: 3*

Total Credits: 62-63

Music Studies, AA (MUSC-AA)

The Music Studies, A. A. degree program offers rigorous academic and performance courses comparable to the first two- years of area baccalaureate music degree programs. It 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, ear- training, keyboard skills, and music 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 completing the program gain knowledge and skills required for: 1) direct employment in music-related careers (i.e. musical instrument service and sales, faith-based music worship services) or 2) for transferring to a baccalaureate music degree in performance, education, composition, audio recording, concert sound reinforcement, commercial production, church music, arts management, etc. The Music Studies program also serves an ever-expanding population of diverse students seeking personal enjoyment in the study of music. Students may enroll in the program full or part time.

Students transferring from music programs including NASM accredited institutions must undergo a music audition and theory placement exam to verify the knowledge and skills obtained from music theory courses taken at the prior institution and provide proper placement within the degree.

Manchester Community College's Music Studies degree program is nationally accredited by the National Association of Schools of Music (NASM) and in good standing.

Learning Outcomes:

Upon successful completion of Music Studies degree program requirements, graduates will:

- Demonstrate a historical/cross-cultural awareness and appreciation of Western European and American contemporary music.
- Demonstrate skills and techniques that reflect an understanding of the theoretical aspect of music, including: an understanding of music theory fundamentals; exploration and development of voice leading principles; formal analysis/genres; aural skills and keyboard techniques.
- Demonstrate an ability to perform solo music selections and within a music ensemble group (vocal or instrumental).
- Demonstrate technical facility and knowledge on specified instrument or voice
- Demonstrate the ability to communicate and express through the medium of music

Admission Process

Proper advisement prior to entering the music studies program is crucial to ensure students commence their studies on the right track to completing the degree successfully. **In compliance with the National Association for Schools of Music (NASM) accrediting standards, students interested in pursuing the CSCC Music Studies A.A. Degree Program are required to audition to determine their level of instrumental or vocal music proficiency.** Auditions must be in person and are scheduled for 30 minutes. Students are required to perform scales and two contrasting pieces.

The audition process, application and scheduled dates can be found on the Manchester campus Music Studies web page under **Audition Information**. Students who indicate prior music instruction may have the option to be tested (Credit by Examination) and receive credit for Music Theory, Ear Training, and Group Piano courses.

General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 - Mathematics of Finance *Credits: 3 (or higher)*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

PSY 1011 - General Psychology I *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR ENG 1020 - Composition II and Literature *Credits: 3*

OR ENG 1030 - Composition II and Non-fiction Texts *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (44 credits)

- MUS 1405 - Applied Lessons I *Credits: 2*
 MUS 1406 - Applied Lessons II *Credits: 2*
 MUS 2405 - Applied Lessons III *Credits: 2*
 MUS 2406 - Applied Lessons IV *Credits: 2*
 MUS 1501 - Chorale Ensemble I *Credits: 1*
 OR MUS 1521 - Classical Chamber Ensemble I *Credits: 1*
 OR MUS 1522 - Jazz Combo I *Credits: 1*
 MUS 1502 - Chorale Ensemble II *Credits: 1*
 OR MUS 1532 - Classical Chamber Ensemble II *Credits: 1*
 OR MUS 1531 - Jazz Combo II *Credits: 1*
 MUS 2503 - Chorale Ensemble III *Credits: 1*
 OR MUS 2523 - Classical Chamber Ensemble III *Credits: 1*
 OR MUS 2533 - Jazz Combo III *Credits: 1*
 MUS 2504 - Chorale Ensemble IV *Credits: 1*
 OR MUS 2524 - Classical Chamber Ensemble IV *Credits: 1*
 OR MUS 2534 - Jazz Combo IV *Credits: 1*
 MUS 1201 - Music Ear-Training I *Credits: 1*
 MUS 1202 - Music Ear-Training II *Credits: 1*
 MUS 2201 - Music Ear-Training III *Credits: 1*
 MUS 2202 - Music Ear-Training IV *Credits: 1*
 MUS 1001 - Music History & Appreciation I *Credits: 3*
 MUS 1002 - Music History & Appreciation II *Credits: 3*
 MUS 1101 - Music Theory I *Credits: 3*
 MUS 1102 - Music Theory II *Credits: 3*
 MUS 2103 - Music Theory III *Credits: 3*
 MUS 2104 - Music Theory IV *Credits: 3*
 MUS 1301 - Group Piano I *Credits: 1*
 MUS 1302 - Group Piano II *Credits: 1*
 MUS 2303 - Group Piano III *Credits: 1*
 MUS 2304 - Group Piano IV *Credits: 1*
 MUS 1007 - Today's Music *Credits: 3*

Music Elective/s to choose from the **Designated Electives List** below *Credits: 3*

Designated Electives

Some courses may only be offered at specific campus locations.

- MUS 1004 - World Music *Credits: 3*
- MUS 1008 - Today's Music: Gospel, Ragtime, Blues, Jazz *Credits: 3*
- MUS 1100 - Fundamentals of Music *Credits: 3*
- MUS 1009 - History and Appreciation of Jazz *Credits: 3*
- MUS 1811 - Guitar I *Credits: 3*
- MUS 1812 - Guitar II *Credits: 3*
- MUS 1300 - Beginning Piano *Credits: 3*
- MUS 1530 - Jazz Ensemble *Credits: 2*
- MUS 1801 - Beginning Voice *Credits: 3*
- MUS 1803 - Language for Singers *Credits: 2*
- MUS 1511 - Madrigal/Chamber Singer I *Credits: 1*
- MUS 1512 - Madrigal/Chamber Singer II *Credits: 1*
- MUS 1831 - Introduction to Conducting *Credits: 2*
- MUS 1821 - Introduction to Music Education *Credits: 2*
- MUS 1602 - Electronic Music Composition I *Credits: 3*
- MUS 2603 - Electronic Music Composition II *Credits: 3*
- MUS 2513 - Madrigal/Chamber Singer III *Credits: 1*
- MUS 2514 - Madrigal/Chamber Singer IV *Credits: 1*

- MUS 2098 - Special Topics in Music *Credits: 2*

Total Credits: 65-68

NOTES: Music major students are required to take 4 semesters of Ensembles (Vocal, or instrumental: Classical or Jazz).

Group Piano I and Applied Lessons Level I courses require permission of the Music department. As in all nationally accredited music programs, students declaring Music as their major must do an interview/audition with the music faculty prior to registering for any music courses for the first time. This audition is not a pass or fail. It is simply a method of assessment, so faculty can better advise them and direct them in the right direction from the beginning of their music studies. The Piano lab has limited seat capability, thus Group Piano courses can only be open to music majors. MUS 1300 is a Beginning Piano course open to any student at the college. Occasionally, non-music majors want to continue studying the instrument. If there are seats available in the class 2-3 days before classes begin, the instructor might grant them permission to register.

Music Studies, AA (MUSC-AA-NV)

Note: The Naugatuck Valley Music Studies program is accredited by NECHE but is not accredited by NASM. If you wish to pursue the nationally accredited Music Studies program, please contact Prof. Deborah Simmons at the Manchester campus.
dsimmons@mcc.commnet.edu.

The Music Studies, A.A. degree program offers rigorous academic and performance courses comparable to the first two years of area baccalaureate music degree programs. It 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, ear-training, keyboard skills, and music 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 completing the program gain knowledge and skills required for: 1) direct employment in music-related careers (i.e. musical instrument service and sales, faith-based music worship services) or 2) for transferring to a baccalaureate music degree in performance, education, composition, audio recording, concert sound reinforcement, commercial production, church music, arts management, etc. The Music Studies program also serves an ever-expanding population of diverse students seeking personal enjoyment in the study of music. Students may enroll in the program full or part time.

Students transferring from music programs must undergo a music audition and theory placement exam to verify the knowledge and skills obtained from music theory courses taken at the prior institution and provide proper placement within the degree.

Learning Outcomes:

Upon successful completion of Music Studies degree program requirements, graduates will:

- Demonstrate a historical/cross-cultural awareness and appreciation of Western European and American contemporary music.
- Demonstrate skills and techniques that reflect an understanding of the theoretical aspect of music, including: an understanding of music theory fundamentals; exploration and development of voice leading principles; formal analysis/genres; aural skills and keyboard techniques.
- Demonstrate an ability to perform solo music selections and within a music ensemble group (vocal or instrumental).
- Demonstrate technical facility and knowledge on specified instrument or voice
- Demonstrate the ability to communicate and express through the medium of music

Admission Process

Proper advisement prior to entering the music studies program is crucial to ensure students commence their studies on the right track to completing the degree successfully. Auditions must be in person and are scheduled for 30 minutes. Students are required to perform scales and two contrasting pieces. Students who indicate prior music instruction may have the option to be tested (Credit by Examination) and receive credit for Music Theory, Ear Training, and Group Piano courses. Contact Dr. Gil Harel, Coordinator of Music for placement: gharel@nvcc.commnet.edu ; 203-575-8039; Contact Tara Smith for Advising, tsmith1@nvcc.commnet.edu ; 203-596-8676.

General Education Core (21-24 credits)

ENG 1010 - Composition Credits: 3
 MATH 1000 or higher Credits: 3-4
 Elective ARHX - Arts & Humanities Course Credits: 3-4
 Elective SCRX - Scientific Reasoning Course Credits: 3-4
 OR Elective SCKX - Scientific Knowledge Course Credits: 3-4
 PSY 1011 - General Psychology I Credits: 3
 OR Elective HISX - Historical Knowledge Course Credits: 3
 COMM 1301 - Public Speaking Credits: 3
 OR ENG 1020 - Composition II and Literature Credits: 3
 OR ENG 1030 - Composition II and Non-fiction Texts Credits: 3
 CCS 1001 - College & Career Success Credits: 3

Program Courses (44 credits)

MUS 1405 - Applied Lessons I Credits: 2
 MUS 1406 - Applied Lessons II Credits: 2

MUS 2405 - Applied Lessons III *Credits: 2*
 MUS 2406 - Applied Lessons IV *Credits: 2*
 MUS 1501 - Chorale Ensemble I *Credits: 1*
 OR MUS 1521 - Classical Chamber Ensemble I *Credits: 1*
 OR MUS 1522 - Jazz Combo I *Credits: 1*
 MUS 1502 - Chorale Ensemble II *Credits: 1*
 OR MUS 1532 - Classical Chamber Ensemble II *Credits: 1*
 OR MUS 1531 - Jazz Combo II *Credits: 1*
 MUS 2503 - Chorale Ensemble III *Credits: 1*
 OR MUS 2523 - Classical Chamber Ensemble III *Credits: 1*
 OR MUS 2533 - Jazz Combo III *Credits: 1*
 MUS 2504 - Chorale Ensemble IV *Credits: 1*
 OR MUS 2524 - Classical Chamber Ensemble IV *Credits: 1*
 OR MUS 2534 - Jazz Combo IV *Credits: 1*
 MUS 1201 - Music Ear-Training I *Credits: 1*
 MUS 1202 - Music Ear-Training II *Credits: 1*
 MUS 2201 - Music Ear-Training III *Credits: 1*
 MUS 2202 - Music Ear-Training IV *Credits: 1*
 MUS 1001 - Music History & Appreciation I *Credits: 3*
 MUS 1002 - Music History & Appreciation II *Credits: 3*
 MUS 1101 - Music Theory I *Credits: 3*
 MUS 1102 - Music Theory II *Credits: 3*
 MUS 2103 - Music Theory III *Credits: 3*
 MUS 2104 - Music Theory IV *Credits: 3*
 MUS 1301 - Group Piano I *Credits: 1*
 MUS 1302 - Group Piano II *Credits: 1*
 MUS 2303 - Group Piano III *Credits: 1*
 MUS 2304 - Group Piano IV *Credits: 1*
 MUS 1007 - Today's Music *Credits: 3*

Music Elective(s) - choose from **Designated Electives** below *Credits: 3*

Designated Electives

Some courses may only be offered at specific campus locations.

- MUS 1004 - World Music *Credits: 3*
- MUS 1008 - Today's Music: Gospel, Ragtime, Blues, Jazz *Credits: 3*
- MUS 1100 - Fundamentals of Music *Credits: 3*
- MUS 1009 - History and Appreciation of Jazz *Credits: 3*
- MUS 1811 - Guitar I *Credits: 3*
- MUS 1812 - Guitar II *Credits: 3*
- MUS 1300 - Beginning Piano *Credits: 3*
- MUS 1530 - Jazz Ensemble *Credits: 2*
- MUS 1801 - Beginning Voice *Credits: 3*
- MUS 1803 - Language for Singers *Credits: 2*
- MUS 1831 - Introduction to Conducting *Credits: 2*
- MUS 1821 - Introduction to Music Education *Credits: 2*
- MUS 1602 - Electronic Music Composition I *Credits: 3*
- MUS 2603 - Electronic Music Composition II *Credits: 3*
- MUS 1511 - Madrigal/Chamber Singer I *Credits: 1*
- MUS 1512 - Madrigal/Chamber Singer II *Credits: 1*
- MUS 2513 - Madrigal/Chamber Singer III *Credits: 1*
- MUS 2514 - Madrigal/Chamber Singer IV *Credits: 1*
- MUS 2098 - Special Topics in Music *Credits: 2*

Total Credits: 65-68

Natural Resources Certificate (NATR-CC)

The certificate offers students an opportunity to earn a credential while taking courses in their major field of study. It also supports the Natural Resources AS Degree at the Northwestern Campus. All courses in the certificate are embedded in the program and are geared to allow students to explore a variety of topics in natural resources while gaining exposure to both fieldwork and real-world applications of concepts learned in class. In addition, individuals with this certificate may be able to find work in entry-level positions with conservation organizations, private companies, or similar entities in natural resources.

Learning Outcomes:

- Apply scientific methodology to a question.
- Discuss experimental design and statistical analysis.
- Describe cellular, organismal, microbiological, and ecological principles of biology.
- Analyze population and community dynamics, ecosystem function, and systems thinking.
- Evaluate important natural resources as well as regional and global environmental concerns.
- Describe how science and risk assessment inform decision-making
- Identify the importance of wicked problems, resilience, and adaptive management in planning.
- Prepare for a career in Natural Resources, Environmental Science, or a related field

Required Courses

ENV 1010 - Introduction to Environmental Science *Credits: 3*

Natural Science Elective *Credits: 3-4*

BIO 1720 - General Ecology *Credits: 4*

OR BIO 2700 - Ecology *Credits: 4*

OR BIO 1550 - Botany *Credits: 4*

ENV 1000 - Exploring Environmental Careers *Credits: 1*

ERTH 1010 - Earth Science *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

Total Credits: 17-18

Natural Resources, AS (NATR-AS)

The Natural Resources AS program is designed for students with an interest in environmental science, forestry, fisheries, conservation ecology, environmental biology, sustainability, wildlife management, soil science, environmental health and monitoring, sustainable agriculture/horticulture, and resource economics. This degree in natural resources provides students with a strong background in basic sciences, including life and the physical sciences, in addition to introducing them to concepts in nature conservancy, resource management, and environmental risk and assessment.

Students may choose to transfer into programs such as those offered through the College of Agricultural and Natural Resources at UCONN, the School of Arts and Sciences at Central Connecticut State University, the Environmental Studies program at Southern Connecticut State University and many other college and university programs across the state, region, and country. Graduates of the program have successfully transferred to many bachelor-degree institutions. Some alumni are also now pursuing MS and PhDs in related fields of study. The Natural Resources Certificate is embedded in this program.

Learning Outcomes:

- Demonstrate basic, safe laboratory skills.
- Demonstrate a variety of safe field sampling techniques.
- Apply the scientific process, experimental design, and statistical analysis of real-world data.
- Describe cellular, organismal, microbiological, and ecological principles of biology.
- Explain energy and nutrient transfer relationships through ecosystems.
- Compare and contrast the characteristics of the kingdoms of life and discuss various mechanisms to identify species.
- Utilize dichotomous keys, biomolecular analysis, and other methods to identify organisms.
- Describe population and community dynamics, ecosystem function, and systems thinking.
- Explain abiotic processes shaping terrestrial and aquatic communities from direct sampling and analysis.
- Discuss deep time, genetics, evolution, and mechanisms of evolution including natural selection.
- Explain chemical and biomolecular concepts as they relate to life and environmental topics.
- Evaluate important natural resources to humans as well as regional and global environmental concerns.
- Describe how science and risk assessment inform decision-making.
- Identify the importance of wicked problems, resilience, and adaptive management in natural resource planning.
- Transfer to a 4-year program and prepare for a career in Natural Resources, Environmental Science, or a related field.

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1610 - Precalculus *Credits: 4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
(ARTH 1001 or ARTH 1002 or PHIL 1101 Recommended)
 ENV 1010 - Introduction to Environmental Science *Credits: 3*
 ANTH 1001 - Introduction to Anthropology *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39-43 credits)

ENV 1000 - Exploring Environmental Careers *Credits: 1*
 BIO 1720 - General Ecology *Credits: 4*
 OR BIO 2700 - Ecology *Credits: 4*
 BIO 1210 - General Biology I *Credits: 4*
 BIO 1220 - General Biology II *Credits: 4*
 BIO 2350 - Microbiology *Credits: 4*
 CSA 1111 - Spreadsheet Applications *Credits: 3*
 CHEM 1210 - General Chemistry I *Credits: 4*
 MATH 1200 - Statistics I *Credits: 3*
 Directed Elective (3-4 credits)
 • BIO 1550 - Botany *Credits: 4*

- **OR** BIO 1098 - Topics of Interest in Biology *Credits: 3*
- **OR** BIO 2098 - Special Topics in Biology *Credits: 3-4*
- **OR** ENV 2995 - Environmental Science Internship *Credits: 1-6*

Restricted Electives (Select 3) (9-12 credits)

- BIO 2600 - Principles of Genetics *Credits: 3*
- BIO 2630 - Molecular Genetics *Credits: 4*
- CHEM 1220 - General Chemistry II *Credits: 4*
- DTS 2201 - Programming in Data Science *Credits: 3*
- EARTH 1010 - Earth Science *Credits: 3*
- ENV 2998 - Special Topics in Environmental Science *Credits: 3-4*
- GEOG 1010 - World Regional Geography *Credits: 3*
- GEOG 1300 - Introduction to Geographic Information Systems *Credits: 3*
- MATH 2200 - Statistics II *Credits: 3*
- MATH 2600 - Calculus I *Credits: 4*
- **OR** PHYS 1201 - General Physics I *Credits: 4*

Total Credits: 61-65

Natural Sciences and Mathematics, AS (NSMA-AS)

The Natural Sciences and Mathematics A.S. allows students to explore segments of various disciplines. This survey within the Sciences and Mathematics coursework provides options and alternatives for continuing studies at a four-year institution. The program also prepares qualified students to work at research facilities as laboratory or research assistants.

Learning Outcomes:

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

- Recognize ethical issues and understand the social responsibility involved in scientific decision making
- Communicate effectively both orally and in writing
- Demonstrate knowledge of the basic principles of the natural and physical sciences
- Prepare, conduct, document, and interpret scientific experiments
- Demonstrate knowledge of the basic principles of algebra, calculus, and/or trigonometry
- Incorporate an interdisciplinary approach to investigating scientific problems

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CHEM 1210 - General Chemistry I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (38-39 credits)

BIO 1210 - General Biology I *Credits: 4*

OR BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 1220 - General Biology II *Credits: 4*

OR BIO 2112 - Anatomy & Physiology II *Credits: 4*

CHEM 1220 - General Chemistry II *Credits: 4*

MATH 1610 - Precalculus *Credits: 4*

MATH 2600 - Calculus I *Credits: 4*

PHIL 1101 - Ethics *Credits: 3*

PHYS 1201 - General Physics I *Credits: 4*

PHYS 1202 - General Physics II *Credits: 4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Any Math course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Any Math course *Credits: 3-4*

Total Credits: 60-61

New Media Production: Audio and Music Certificate (NAMC-CC-NMP)

This certificate is pending final approval by spring 2023 governance

This program is a career-oriented certificate program designed to prepare students to work in various types of audio-related positions in music recording and media. Students can specialize in either music production or audio production for media, with some overlap between these two areas. The program emphasizes hands-on training using professional-level, state-of-the-art, digital audio technology and software with some required coursework in music. While not designed as a transfer program, the curriculum includes several courses modeled after those offered by similar bachelor's degree programs and should allow for easy transfer to these types of programs.

CT State, Middlesex campus is home to a new audio recording and post-production studios and labs are Pro Tools-based and will allow students to learn the advanced-level skills necessary to be competent professional audio technicians.

Learning Outcomes

- Effectively use a variety of industry tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Workflow analysis and instructor review
 - Review of effective project delivery across platforms
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
Assessment:
 - Equipment and software certification tests - project and instructor portfolio review
 - Work site supervisor and evaluation
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Continuous instructor review of online portfolio and social media presence
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
Assessment:
 - Equipment and software certification tests
 - Grading of written materials
 - Application of aesthetic techniques to class projects - project and portfolio review
 - Thesis project instructor review and/or review by professional
- Apply critical thinking and aesthetic judgments in creating collaborative media projects.
Assessment:
 - Ability to apply aesthetics examined in media works to personal and class projects - instructor review
 - Demonstrate successful collaboration with peers and professionals as needed
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
Assessment:
 - Demonstrate media literacy skills through presentation of written, aural and visual media
 - Research and evaluate media through audience analysis and critiques
 - Instructor review
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.
Assessment:
 - Instructor review of experiential learning blogs and logs
 - On-site work supervisor evaluations of student work ethic, projects and collaboration - instructor review of student experiential learning evaluation

Required Courses

COMM 1612 - Audio Production *Credits: 3*

MUS 1100 - Fundamentals of Music *Credits: 3*

OR MUS 1101 - Music Theory I *Credits: 3*

MUS 1201 - Music Ear-Training I *Credits: 1*

MUS 1602 - Electronic Music Composition I *Credits: 3*

MUS 1301 - Group Piano I *Credits: 1*

MUS 2603 - Electronic Music Composition II *Credits: 3*

MUS 2605 - Principles of Sound Recording *Credits: 3*

MUS 2604 - Advanced Music Mixing and Processing *Credits: 3*

MUS 1001 - Music History & Appreciation I *Credits: 3*

OR MUS 1002 - Music History & Appreciation II *Credits: 3*

OR MUS 1004 - World Music *Credits: 3*

OR MUS 1007 - Today's Music *Credits: 3*

OR MUS 1008 - Today's Music: Gospel, Ragtime, Blues, Jazz *Credits: 3*

OR MUS 1009 - History and Appreciation of Jazz *Credits: 3*

OR MUS 1010 - Rock and Roll History and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*
Open Elective *Credits: 3*

Total Credits: 29

New Media Production: Audio and Music, AAS (NAMP-AAS-NMP)

The New Media Production Applied Associate of Science (A.A.S.) degree qualifies students to work in the many industries that require skills in digital media production. Before the end of their first semester students are required to enroll in a certificate, specializing in one of seven areas of media production targeted to the employment needs of the state's media businesses:

- Audio and Music
- Corporate Media
- Digital Marketing
- Film and Video
- Multimedia
- News and Sports
- Web Design and Development

Media is a collaborative creative business. To foster collaboration in an educational setting, the New Media Production program is designed as a cohort program. Students in their first semester are in a single cohort, taking the same courses which provide identified skills that all media production professionals should have including foundational digital media production skills, an understanding of media literacy and aesthetics, shooting and editing digital video, and knowledge about the various careers in media. At the end of that first semester, students declare their area of specialization by enrolling in one of the certificate programs. During the second and third semester, students break into smaller cohorts in their area of specialization. The larger cohort comes back together in the final semester to meet graduation requirements through the production of a capstone project of professional quality, collaborating with other members of the cohort who can bring their specialized skills to these portfolio productions. At least one internship is required to graduate from the program. Students graduate with two credentials, an AAS degree and a certificate that attest to their specialization in their selected area of production.

Students learn in a professional production environment, the \$2.5 million Center for New Media (CNM) on the Middlesex campus. CNM features advanced media production studios, labs and classrooms outfitted with the latest professional production equipment and instructional technology. A loan pool in the Center provides students with digital cinema and high-definition broadcast cameras, wireless microphones, professional light kits, audio mixers, camera dollies and other equipment needed to complete projects. There are 80 media production workstations in the Center with the latest industry-standard professional software, and a fast network infrastructure to access, manage and move large media files. CNM staff, educational assistants and student workers provide tutoring assistance, perform equipment certifications, and provide other educational support.

Students can intern with either outside businesses or the award-winning Center for New Media Productions. Center for New Media Productions' full-time media producer assigns crew positions and projects to students, something they would not normally get at an external internship.

The New Media Production Associate of Applied Science degree will provide students the opportunity to complete 21 credits of general education coursework. There are 24 credits of core program requirements divided into 12 credits of core courses that all New Media Production majors must take including 2 capstone courses and 12 credits of Program Requirements in their area of specialization. Further specialization is provided by 15 credits of Directed Electives.

NMP courses can only be taken at the Middletown campus.

New Media Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

In addition, Audio and Music students will:

- Effectively use a variety of industry tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

New Media Production General Education Core (21-22 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3* (or higher)

COMM 1601 - Digital Video Production *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Recommended: COMM 1010 or ECON 1002

CCS 1001 - College & Career Success *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 2513 - Scriptwriting for Media *Credits: 3 **

*Required for Film & Video, News & Sports, and Corporate Media options

New Media Production Program Core (12 Credits)

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 2003 - Media Literacy *Credits: 3*

OR COMM 1201 - Film Study and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Audio & Music Courses (29 Credits)

COMM 1612 - Audio Production *Credits: 3*

MUS 1602 - Electronic Music Composition I *Credits: 3*

MUS 2603 - Electronic Music Composition II *Credits: 3*

MUS 1100 - Fundamentals of Music *Credits: 3*

OR MUS 1101 - Music Theory I *Credits: 3*

MUS 2605 - Principles of Sound Recording *Credits: 3*

MUS 2604 - Advanced Music Mixing and Processing *Credits: 3*

MUS 1001 - Music History & Appreciation I *Credits: 3*

OR MUS 1002 - Music History & Appreciation II *Credits: 3*

OR MUS 1004 - World Music *Credits: 3*

OR MUS 1007 - Today's Music *Credits: 3*

OR MUS 1009 - History and Appreciation of Jazz *Credits: 3*

OR MUS 1010 - Rock and Roll History and Appreciation *Credits: 3*

MUS 1201 - Music Ear-Training I *Credits: 1*

MUS 1301 - Group Piano I *Credits: 1*

Directed Elective: any COMM or NMP course *Credits: 3*

Open Elective *Credits: 3*

Total Credits: 62-63

New Media Production: Corporate Media Certificate (NMC-CC-NMP)

this certificate is pending final approval by spring 2023 governance

The Corporate Media Production certificate program prepares students for entry-level media production positions in business, industry, and education. Emphasis is on hands-on production skills. Corporate media professionals tend to be generalists; therefore, this program provides students with a variety of production experiences including writing scripts, camera operation, video editing, web production and video streaming as they apply to business. An internal practicum in the college's nationally recognized Corporate Media Production department or an external internship at a company or non-profit organization is required.

This 30-credit certificate program is intended as a stackable credential for students looking to specialize in corporate media production. When enrolling in this program as a standalone occupational certificate, it is recommended that students entering the program either have an associate degree or higher or are enrolled in the Digital Media Production associate degree program to improve employability upon graduation.

Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Workflow analysis and instructor review
 - Review of effective project delivery across platforms
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Work site supervisor and evaluation
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Continuous instructor review of online portfolio and social media presence
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
Assessment:
 - Equipment and software certification tests
 - Grading of written materials
 - Application of aesthetic techniques to class projects - project and portfolio review
 - Thesis project instructor review and/or review by professional
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
Assessment:
 - Ability to apply aesthetics examined in media works to personal and class projects -Instructor review
 - Demonstrate successful collaboration with peers and professionals as needed
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
Assessment:
 - Demonstrate media literacy skills through presentation of written, aural and visual media
 - Research and evaluate media through audience analysis and critiques
 - Instructor review
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.
Assessment:
 - Instructor review of experiential learning blogs and logs

- On-site work supervisor evaluations of student work ethic, projects and collaboration - instructor review of student experiential learning evaluation

Program is eligible for Workforce Innovation and Opportunity Act (WIOA)

Required Courses

BMGT 2040 - Managerial Communications *Credits: 3*

OR BENT 2170 - Small Business Management & Growth *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

ENG 1010 - Composition *Credits: 3*

or any elective if ENG 1010 previously completed

COMM 2513 - Scriptwriting for Media *Credits: 3*

COMM 1601 - Digital Video Production *Credits: 3*

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 1047 - Digital Cinematography *Credits: 3*

NMP 2064 - Advanced Video Editing *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

Open Elective *Credits: 3*

Total Credits: 33

New Media Production: Corporate Media, AAS (NCMD-AAS-NMP)

The New Media Production Applied Associate of Science (A.A.S.) degree qualifies students to work in the many industries that require skills in digital media production. Before the end of their first semester students are required to enroll in a certificate, specializing in one of seven areas of media production targeted to the employment needs of the state's media businesses:

- Audio and Music
- Corporate Media
- Digital Marketing
- Film and Video
- Multimedia
- News and Sports
- Web Design and Development

Media is a collaborative creative business. To foster collaboration in an educational setting, the New Media Production program is designed as a cohort program. Students in their first semester are in a single cohort, taking the same courses which provide identified skills that all media production professionals should have including foundational digital media production skills, an understanding of media literacy and aesthetics, shooting and editing digital video, and knowledge about the various careers in media. At the end of that first semester, students declare their area of specialization by enrolling in one of the certificate programs. During the second and third semester, students break into smaller cohorts in their area of specialization. The larger cohort comes back together in the final semester to meet graduation requirements through the production of a capstone project of professional quality, collaborating with other members of the cohort who can bring their specialized skills to these portfolio productions. At least one internship is required to graduate from the program. Students graduate with two credentials, an AAS degree and a certificate that attest to their specialization in their selected area of production.

Students learn in a professional production environment, the \$2.5 million Center for New Media (CNM) on the Middlesex campus. CNM features advanced media production studios, labs and classrooms outfitted with the latest professional production equipment and instructional technology. A loan pool in the Center provides students with digital cinema and high-definition broadcast cameras, wireless microphones, professional light kits, audio mixers, camera dollies and other equipment needed to complete projects. There are 80 media production workstations in the Center with the latest industry-standard professional software, and a fast network infrastructure to access, manage and move large media files. CNM staff, educational assistants and student workers provide tutoring assistance, perform equipment certifications, and provide other educational support.

Students can intern with either outside businesses or the award-winning Center for New Media Productions. Center for New Media Productions' full-time media producer assigns crew positions and projects to students, something they would not normally get at an external internship.

The New Media Production Associate of Applied Science degree will provide students the opportunity to complete 21 credits of general education coursework. There are 24 credits of core program requirements divided into 12 credits of core courses that all New Media Production majors must take including 2 capstone courses and 12 credits of Program Requirements in their area of specialization. Further specialization is provided by 15 credits of Directed Electives.

NMP courses can only be taken at the Middletown campus.

New Media Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

In addition, Corporate Media student will:

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

New Media Production General Education Core (21-22 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3* (or higher)

COMM 1601 - Digital Video Production *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Recommended: COMM 1010 or ECON 1002

CCS 1001 - College & Career Success *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 2513 - Scriptwriting for Media *Credits: 3 **

*Required for Film & Video, News & Sports, and Corporate Media options

New Media Production Program Core (12 Credits)

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 2003 - Media Literacy *Credits: 3*

OR COMM 1201 - Film Study and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Corporate Media Courses (27 credits)

DGA 1101 - Introduction to Computer Graphics *Credits: 3*

NMP 2020 - Television Studio Production *Credits: 3*

COMM 2502 - Social Media Strategy *Credits: 3*

NMP 2064 - Advanced Video Editing *Credits: 3*

NMP 1047 - Digital Cinematography *Credits: 3*

OR COMM 1612 - Audio Production *Credits: 3*

BMGT 2040 - Managerial Communications *Credits: 3*

BENT 2170 - Small Business Management & Growth *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

COM/DGA/NMP Elective *Credits: 3*

Any course number 1000 or higher *Credits: 3*

Total Credits: 60-61

New Media Production: Digital Marketing Certificate (NDGC-CC-NMP)

The Digital Marketing certificate prepares students for entry-level digital marketing positions. It also can boost current marketable skills on a resume and help facilitate a career change. The Digital Marketing certificate is a career path that includes Business, Communications, English, and Digital Media Production courses.

A review from the American Marketing Association and the Digital Marketing Association of the top skills digital Marketers need to be successful in the workforce are embedded in the program design. In addition, the Digital Marketing certificate outcomes provide competencies in the top skills required found in digital marketing positions; Marketing Knowledge, Social Media Marketing, Marketing Strategy, Product Management, Budgeting, Marketing Communications, Content Marketing, E-commerce, User Interface & Experience, Online Advertising Email Marketing, Search Engine Optimization (SEO), Website Optimization, Display and Video Advertising and Analytics.

Learning Outcomes:

- Understand and apply segmentation, targeting, positioning, branding, and the marketing mix in pursuit of long-term marketing objectives.
- Develop and apply integrated marketing strategies for all channels.
- Analyze principles, techniques and major functions of management and business organizations.
- Create Search Engine Marketing (SEM) & Conversion Rate Optimization (CRO) techniques (campaigns), evaluate their effectiveness and recommend changes that will improve an e-commerce campaign's conversion rates.
- Understand the various methods of online display advertising and create online display ad campaigns and measure its ROAS (return on ad spend based on budgeting) for an e-commerce site.
- Understand and interpret web analytics; determine the appropriate KPIs for any type of website and make appropriate recommendations to an e-commerce website based on the conversion funnel and analytics.
- Understand and implement best practices in marketing to a database of current and potential customers via email.
- Create compelling content including titles, bylines and copy and utilize knowledge of social media tactics to design an effective social media campaigns.
- Use new media including social media, blogs, web sites and online portfolios for course presentations and job preparation.
- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.

Required Courses

ENG 1010 - Composition *Credits: 3*

NMP 1110 - Introduction to Digital Graphics *Credits: 3*

NMP 2210 - Web Productions Fundamentals *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

OR BMGT 2100 - Organizational Behavior *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BMKT 2160 - Digital Marketing *Credits: 3*

BMKT 2080 - Social Media Marketing *Credits: 3*

Any course in ACCT, BMGT, BENT, BMKT, BUSN, NMP, COMM, ENG, MATH, ECON *Credits: 3*

Any course in ACCT, BMGT, BENT, BMKT, BUSN, NMP, COMM, ENG, MATH *Credits: 3*

BUSN 2098 - Business Special Topics *Credits: 3*

OR BUSN 2095 - Business Practicum *Credits: 3*

Total Credits: 30

New Media Production: Digital Marketing, AAS (NDGM-AAS-NMP)

The New Media Production Applied Associate of Science (A.A.S.) degree qualifies students to work in the many industries that require skills in digital media production. Before the end of their first semester students are required to enroll in a certificate, specializing in one of seven areas of media production targeted to the employment needs of the state's media businesses:

- Audio and Music
- Corporate Media
- Digital Marketing
- Film and Video
- Multimedia
- News and Sports
- Web Design and Development

Media is a collaborative creative business. To foster collaboration in an educational setting, the New Media Production program is designed as a cohort program. Students in their first semester are in a single cohort, taking the same courses which provide identified skills that all media production professionals should have including foundational digital media production skills, an understanding of media literacy and aesthetics, shooting and editing digital video, and knowledge about the various careers in media. At the end of that first semester, students declare their area of specialization by enrolling in one of the certificate programs. During the second and third semester, students break into smaller cohorts in their area of specialization. The larger cohort comes back together in the final semester to meet graduation requirements through the production of a capstone project of professional quality, collaborating with other members of the cohort who can bring their specialized skills to these portfolio productions. At least one internship is required to graduate from the program. Students graduate with two credentials, an AAS degree and a certificate that attest to their specialization in their selected area of production.

Students learn in a professional production environment, the \$2.5 million Center for New Media (CNM) on the Middlesex campus. CNM features advanced media production studios, labs and classrooms outfitted with the latest professional production equipment and instructional technology. A loan pool in the Center provides students with digital cinema and high-definition broadcast cameras, wireless microphones, professional light kits, audio mixers, camera dollies and other equipment needed to complete projects. There are 80 media production workstations in the Center with the latest industry-standard professional software, and a fast network infrastructure to access, manage and move large media files. CNM staff, educational assistants and student workers provide tutoring assistance, perform equipment certifications, and provide other educational support.

Students can intern with either outside businesses or the award-winning Center for New Media Productions. Center for New Media Productions' full-time media producer assigns crew positions and projects to students, something they would not normally get at an external internship.

The New Media Production Associate of Applied Science degree will provide students the opportunity to complete 21 credits of general education coursework. There are 24 credits of core program requirements divided into 12 credits of core courses that all New Media Production majors must take including 2 capstone courses and 12 credits of Program Requirements in their area of specialization. Further specialization is provided by 15 credits of Directed Electives.

NMP courses can only be taken at the Middletown campus.

New Media Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

In addition, *Digital Marketing* students will:

- Understand and apply segmentation, targeting, positioning, branding, and the marketing mix in pursuit of long-term marketing objectives.
- Develop and apply integrated marketing strategies for all channels.
- Analyze principles, techniques and major functions of management and business organizations.
- Create Search Engine Marketing (SEM) & Conversion Rate Optimization (CRO) techniques (campaigns), evaluate their effectiveness and recommend changes that will improve an e-commerce campaign's conversion rates.
- Understand the various methods of online display advertising and create online display ad campaigns and measure its return on ad spend based on budgeting) for an e-commerce site.
- Understand and interpret web analytics; determine the appropriate KPIs for any type of website and make appropriate recommendations to an e-commerce website based on the conversion funnel and analytics.
- Understand and implement best practices in marketing to a database of current and potential customers via email.
- Create compelling content including titles, bylines and copy and utilize knowledge of social media tactics to design an effective social media campaign.
- Use new media including social media, blogs, web sites and online portfolios for course presentations and job preparation.
- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.

New Media Production General Education Core (21-22 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3* (or higher)

COMM 1601 - Digital Video Production *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Recommended: COMM 1010 or ECON 1002

CCS 1001 - College & Career Success *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 2513 - Scriptwriting for Media *Credits: 3 **

*Required for Film & Video, News & Sports, and Corporate Media options

New Media Production Program Core (12 Credits)

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 2003 - Media Literacy *Credits: 3*

OR COMM 1201 - Film Study and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Digital Marketing Courses (27 credits)

BMKT 2010 - Principles of Marketing *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BMKT 2160 - Digital Marketing *Credits: 3*

COMM 2502 - Social Media Strategy *Credits: 3*

NMP 1110 - Introduction to Digital Graphics *Credits: 3*

NMP 2210 - Web Productions Fundamentals *Credits: 3*

Elective - ACCT/BUSN/BMKT/DGA/COMM/ENG/NMP *Credits: 3*

Elective - ACCT/BUSN/BMKT/DGA/COMM/ENG/NMP *Credits: 3*

Elective - 1000 Level course or higher *Credits: 3*

Total Credits: 60-61

New Media Production: Film & Video Certificate (NFLC-CC-NMP)

This certificate is pending final approval by spring 2023 governance

The Film and Video certificate program teaches video production as applied to the broadcast television, film, corporate and digital media industries with an emphasis on narrative, documentary/news and informational programming. This hands-on program teaches all aspects of field, studio and video post-production on advanced technology in the college's Center for New Media. The Advanced Media Production and Internship act as capstone courses providing students with portfolio examples of professional work and on-site work experience in preparation for entry level positions or contract employment in the field.

This 30-credit certificate program is intended as a stackable credential for students looking to specialize in digital video production. When enrolling in this program as a standalone occupational certificate, it is recommended that students entering the program either have an associate degree or higher or are enrolled in the Digital Media Production associate degree program to improve employability upon graduation.

Learning Outcomes:

1. Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems. Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Workflow analysis and instructor review
 - Review of effective project delivery across platforms
2. Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry. Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Work site supervisor and evaluation
3. Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals. Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Continuous instructor review of online portfolio and social media presence
4. Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts. Assessment:
 - Equipment and software certification tests
 - Grading of written materials
 - Application of aesthetic techniques to class projects
 - Project and portfolio review
 - Thesis project instructor review and/or review by professional
5. Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects. Assessment:
 - Ability to apply aesthetics examined in media works to personal and class projects
 - Instructor review
 - Demonstrate successful collaboration with peers and professionals as needed
1. Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience. Assessment:
 - Demonstrate media literacy skills through presentation of written, aural and visual media
 - Research and evaluate media through audience analysis and critiques
 - Instructor review
2. Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning. Assessment:
 - Instructor review of experiential learning blogs and logs
 - On-site work supervisor evaluations of student work ethic, projects and collaboration
 - Instructor review of student experiential learning evaluation

Required Courses

COMM 1601 - Digital Video Production *Credits: 3*

NMP 1047 - Digital Cinematography *Credits: 3*

OR COMM 1612 - Audio Production *Credits: 3*

COMM 1010 - Introduction to Mass Communication *Credits: 3*

COMM 2513 - Scriptwriting for Media *Credits: 3*

NMP 1053 - Film Production *Credits: 3*

NMP 2020 - Television Studio Production *Credits: 3*

NMP 2028 - News, Documentary and Reality Programming *Credits: 3*

NMP 2064 - Advanced Video Editing *Credits: 3*

ENG 1010 - Composition *Credits: 3*

or Open Elective if ENG 1010 completed previously

NMP 2090 - Media Production Capstone *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Total Credits: 30

New Media Production: Film and Video, AAS (NFLV-AAS-NMP)

The New Media Production Applied Associate of Science (A.A.S.) degree qualifies students to work in the many industries that require skills in digital media production. Before the end of their first semester students are required to enroll in a certificate, specializing in one of seven areas of media production targeted to the employment needs of the state's media businesses:

- Audio and Music
- Corporate Media
- Digital Marketing
- Film and Video
- Multimedia
- News and Sports
- Web Design and Development

Media is a collaborative creative business. To foster collaboration in an educational setting, the New Media Production program is designed as a cohort program. Students in their first semester are in a single cohort, taking the same courses which provide identified skills that all media production professionals should have including foundational digital media production skills, an understanding of media literacy and aesthetics, shooting and editing digital video, and knowledge about the various careers in media. At the end of that first semester, students declare their area of specialization by enrolling in one of the certificate programs. During the second and third semester, students break into smaller cohorts in their area of specialization. The larger cohort comes back together in the final semester to meet graduation requirements through the production of a capstone project of professional quality, collaborating with other members of the cohort who can bring their specialized skills to these portfolio productions. At least one internship is required to graduate from the program. Students graduate with two credentials, an AAS degree and a certificate that attest to their specialization in their selected area of production.

Students learn in a professional production environment, the \$2.5 million Center for New Media (CNM) on the Middlesex campus. CNM features advanced media production studios, labs and classrooms outfitted with the latest professional production equipment and instructional technology. A loan pool in the Center provides students with digital cinema and high-definition broadcast cameras, wireless microphones, professional light kits, audio mixers, camera dollies and other equipment needed to complete projects. There are 80 media production workstations in the Center with the latest industry-standard professional software, and a fast network infrastructure to access, manage and move large media files. CNM staff, educational assistants and student workers provide tutoring assistance, perform equipment certifications, and provide other educational support.

Students can intern with either outside businesses or the award-winning Center for New Media Productions. Center for New Media Productions' full-time media producer assigns crew positions and projects to students, something they would not normally get at an external internship.

The New Media Production Associate of Applied Science degree will provide students the opportunity to complete 21 credits of general education coursework. There are 24 credits of core program requirements divided into 12 credits of core courses that all New Media Production majors must take including 2 capstone courses and 12 credits of Program Requirements in their area of specialization. Further specialization is provided by 15 credits of Directed Electives.

NMP courses can only be taken at the Middletown campus.

New Media Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

In addition, Film & Video students will:

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

New Media Production General Education Core (21-22 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3* (or higher)

COMM 1601 - Digital Video Production *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Recommended: COMM 1010 or ECON 1002

CCS 1001 - College & Career Success *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 2513 - Scriptwriting for Media *Credits: 3 **

*Required for Film & Video, News & Sports, and Corporate Media options

New Media Production Program Core (12 Credits)

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 2003 - Media Literacy *Credits: 3*

OR COMM 1201 - Film Study and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Film & Video Courses (27 credits)

NMP 1053 - Film Production *Credits: 3*

NMP 2020 - Television Studio Production *Credits: 3*

NMP 2028 - News, Documentary and Reality Programming *Credits: 3*

NMP 2064 - Advanced Video Editing *Credits: 3*

NMP 1047 - Digital Cinematography *Credits: 3*

OR COMM 1612 - Audio Production *Credits: 3*

COMM 1612 - Audio Production *Credits: 3*

OR DGA Elective *Credits: 3*

Elective - COM/DGA/NMP *Credits: 3*

Elective - COM/DGA/NMP *Credits: 3*

Elective - Any course number 1000 or higher *Credits: 3*

Total Credits: 60-61

New Media Production: Multimedia Certificate (NMMC-CC-NMP)

This certificate is pending final approval by spring 2023 governance

The Multimedia (New Media Design) certificate program prepares students for careers in the field of interactive multimedia production used in business, marketing, education, entertainment, and the World Wide Web. Students learn interactive multimedia design, authoring and production including graphics, audio, video, and animation. Graduates leave with a portfolio of work and experience that prepare them for careers as multimedia producers, web designers, project managers or media production specialists.

This program offers students opportunities to integrate the world of computers, Internet, art and multimedia in completion of the certificate. It also covers relevant areas of web site construction, including designing and programming pages, developing multimedia content, as well as building and managing a web site.

This 30-credit certificate program is intended as a stackable credential for students looking to specialize in corporate media production. When enrolling in this program as a standalone occupational certificate, it is recommended that students entering the program either have an associate degree or higher or are enrolled in the Digital Media Production associate degree program to improve employability upon graduation.

Learning Outcomes:

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Workflow analysis and instructor review
 - Review of effective project delivery across platforms
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Work site supervisor and evaluation
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Continuous instructor review of online portfolio and social media presence
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
Assessment:
 - Equipment and software certification tests
 - Grading of written materials
 - Application of aesthetic techniques to class projects

Program is eligible for Workforce Innovation and Opportunity Act (WIOA)

Required Courses

ART 1210 - Two-Dimensional Design *Credits: 3*
 NMP 1110 - Introduction to Digital Graphics *Credits: 3*
 NMP 1120 - Image Editing and the Pixel *Credits: 3*
 NMP 1001 - Digital Media Foundations *Credits: 3*
OR NMP 1025 - New Media Production *Credits: 3*
 NMP 2200 - Producing Interactive Media *Credits: 3*
 GRA 1501 - Graphic Design I *Credits: 3*
OR NMP 2100 - Introduction to Animated Productions *Credits: 3*

Elective - ART/COMM/GRA/NMP *Credits: 3*

Elective - ART/COMM/GRA/NMP *Credits: 3*

ENG 1010 - Composition *Credits: 3*

or Open Elective if ENG 1010 previously completed

NMP 2090 - Media Production Capstone *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Total Credits: 30

New Media Production: Multimedia, AAS (NMMD-AAS-NMP)

The New Media Production Applied Associate of Science (A.A.S.) degree qualifies students to work in the many industries that require skills in digital media production. Before the end of their first semester students are required to enroll in a certificate, specializing in one of seven areas of media production targeted to the employment needs of the state's media businesses:

- Audio and Music
- Corporate Media
- Digital Marketing
- Film and Video
- Multimedia
- News and Sports
- Web Design and Development

Media is a collaborative creative business. To foster collaboration in an educational setting, the New Media Production program is designed as a cohort program. Students in their first semester are in a single cohort, taking the same courses which provide identified skills that all media production professionals should have including foundational digital media production skills, an understanding of media literacy and aesthetics, shooting and editing digital video, and knowledge about the various careers in media. At the end of that first semester, students declare their area of specialization by enrolling in one of the certificate programs. During the second and third semester, students break into smaller cohorts in their area of specialization. The larger cohort comes back together in the final semester to meet graduation requirements through the production of a capstone project of professional quality, collaborating with other members of the cohort who can bring their specialized skills to these portfolio productions. At least one internship is required to graduate from the program. Students graduate with two credentials, an AAS degree and a certificate that attest to their specialization in their selected area of production.

Students learn in a professional production environment, the \$2.5 million Center for New Media (CNM) on the Middlesex campus. CNM features advanced media production studios, labs and classrooms outfitted with the latest professional production equipment and instructional technology. A loan pool in the Center provides students with digital cinema and high-definition broadcast cameras, wireless microphones, professional light kits, audio mixers, camera dollies and other equipment needed to complete projects. There are 80 media production workstations in the Center with the latest industry-standard professional software, and a fast network infrastructure to access, manage and move large media files. CNM staff, educational assistants and student workers provide tutoring assistance, perform equipment certifications, and provide other educational support.

Students can intern with either outside businesses or the award-winning Center for New Media Productions. Center for New Media Productions' full-time media producer assigns crew positions and projects to students, something they would not normally get at an external internship.

The New Media Production Associate of Applied Science degree will provide students the opportunity to complete 21 credits of general education coursework. There are 24 credits of core program requirements divided into 12 credits of core courses that all New Media Production majors must take including 2 capstone courses and 12 credits of Program Requirements in their area of specialization. Further specialization is provided by 15 credits of Directed Electives.

NMP courses can only be taken at the Middletown campus.

New Media Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

In addition, Multimedia students will:

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

General Education Courses (21-22)

ENG 1010 - Composition *Credits: 3*

MATH 1010 or higher *Credits: 3-4*

COMM 1601 - Digital Video Production *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

COMM 1010 - Introduction to Mass Communication *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

OR Elective SBSX - Social / Behavioral Science Course *Credits: 3*

(Recommended: COMM 1010 or ECON 1002)

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 2513 - Scriptwriting for Media *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 Credits)

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 2003 - Media Literacy *Credits: 3*

OR COMM 1201 - Film Study and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

OR NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

Multimedia Courses:

ART 1210 - Two-Dimensional Design *Credits: 3*

NMP 1110 - Introduction to Digital Graphics *Credits: 3*

NMP 1120 - Image Editing and the Pixel *Credits: 3*

NMP 2200 - Producing Interactive Media *Credits: 3*

NMP 2210 - Web Productions Fundamentals *Credits: 3*

GRA 1501 - Graphic Design I *Credits: 3*

OR NMP 2100 - Introduction to Animated Productions *Credits: 3*

Elective - COM/DGA/NMP *Credits: 3*

Elective - COM/DGA/NMP *Credits: 3*

Elective - Any course number 1000 or higher *Credits: 3*

Total Credits: 60-61

New Media Production: News and Sports Certificate (NNSC-CC-NMP)

This certificate is pending final approval by spring 2023 governance

The News and Sports Production certificate program prepares students for entry-level positions in television news and sports production. Emphasis is on hands-on production skills used at broadcast television stations, media production companies and new media organizations. . Students will learn news and sports journalism as well as field, studio, and remote production in their courses. Graduates are prepared for positions such as associate producer, assignment editor, teleprompter operator, floor/studio manager, news photographer, video editor, associate producer, and digital and new media producers. COM*295 Internship act as a capstone course providing students with portfolio work and on-site work experiences in preparation for employment.

This 30-credit certificate program is intended as a stackable credential for students looking to specialize in digital video production. When enrolling in this program as a standalone occupational certificate, it is recommended that students entering the program either have an associate degree or higher or are enrolled in the Digital Media Production associate degree program to improve employability upon graduation.

Learning Outcomes:

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Workflow analysis and instructor review
 - Review of effective project delivery across platforms
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Work site supervisor and evaluation
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Continuous instructor review of online portfolio and social media presence
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
Assessment:
 - Equipment and software certification tests
 - Grading of written materials
 - Application of aesthetic techniques to class projects
 - Project and portfolio review
 - Thesis project instructor review and/or review by professional
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
Assessment:
 - Ability to apply aesthetics examined in media works to personal and class projects
 - Instructor review
 - Demonstrate successful collaboration with peers and professionals as needed
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
Assessment:
 - Demonstrate media literacy skills through presentation of written, aural and visual media
 - Research and evaluate media through audience analysis and critiques
 - Instructor review

- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

Assessment:

- Instructor review of experiential learning blogs and logs
- On-site work supervisor evaluations of student work ethic, projects and collaboration
- Instructor review of student experiential learning evaluation

Program is eligible for Workforce Innovation and Opportunity Act (WIOA)

Required Courses

COMM 1601 - Digital Video Production *Credits: 3*

NMP 1110 - Introduction to Digital Graphics *Credits: 3*

OR NMP 1120 - Image Editing and the Pixel *Credits: 3*

COMM 1010 - Introduction to Mass Communication *Credits: 3*

ENG 1010 - Composition *Credits: 3*

or Open Elective if ENG 1010 taken previously

COMM 2513 - Scriptwriting for Media *Credits: 3*

NMP 2020 - Television Studio Production *Credits: 3*

NMP 2028 - News, Documentary and Reality Programming *Credits: 3*

COMM 1401 - Journalism I *Credits: 3*

NMP 2064 - Advanced Video Editing *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Total Credits: 30

New Media Production: News and Sports, AAS (NNSP-AAS-NMP)

The New Media Production Applied Associate of Science (A.A.S.) degree qualifies students to work in the many industries that require skills in digital media production. Before the end of their first semester students are required to enroll in a certificate, specializing in one of seven areas of media production targeted to the employment needs of the state's media businesses:

- Audio and Music
- Corporate Media
- Digital Marketing
- Film and Video
- Multimedia
- News and Sports
- Web Design and Development

Media is a collaborative creative business. To foster collaboration in an educational setting, the New Media Production program is designed as a cohort program. Students in their first semester are in a single cohort, taking the same courses which provide identified skills that all media production professionals should have including foundational digital media production skills, an understanding of media literacy and aesthetics, shooting and editing digital video, and knowledge about the various careers in media. At the end of that first semester, students declare their area of specialization by enrolling in one of the certificate programs. During the second and third semester, students break into smaller cohorts in their area of specialization. The larger cohort comes back together in the final semester to meet graduation requirements through the production of a capstone project of professional quality, collaborating with other members of the cohort who can bring their specialized skills to these portfolio productions. At least one internship is required to graduate from the program. Students graduate with two credentials, an AAS degree and a certificate that attest to their specialization in their selected area of production.

Students learn in a professional production environment, the \$2.5 million Center for New Media (CNM) on the Middlesex campus. CNM features advanced media production studios, labs and classrooms outfitted with the latest professional production equipment and instructional technology. A loan pool in the Center provides students with digital cinema and high-definition broadcast cameras, wireless microphones, professional light kits, audio mixers, camera dollies and other equipment needed to complete projects. There are 80 media production workstations in the Center with the latest industry-standard professional software, and a fast network infrastructure to access, manage and move large media files. CNM staff, educational assistants and student workers provide tutoring assistance, perform equipment certifications, and provide other educational support.

Students can intern with either outside businesses or the award-winning Center for New Media Productions. Center for New Media Productions' full-time media producer assigns crew positions and projects to students, something they would not normally get at an external internship.

The New Media Production Associate of Applied Science degree will provide students the opportunity to complete 21 credits of general education coursework. There are 24 credits of core program requirements divided into 12 credits of core courses that all New Media Production majors must take including 2 capstone courses and 12 credits of Program Requirements in their area of specialization. Further specialization is provided by 15 credits of Directed Electives.

NMP courses can only be taken at the Middletown campus.

New Media Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

In addition, News & Sports students will:

- Effectively use a variety of industry tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting professional skills and capabilities. Showcase portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other digital media technologies
- Apply critical thinking & aesthetic judgments creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

New Media Production General Education Core (21-22 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3* (or higher)

COMM 1601 - Digital Video Production *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Recommended: COMM 1010 or ECON 1002

CCS 1001 - College & Career Success *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 2513 - Scriptwriting for Media *Credits: 3 **

*Required for Film & Video, News & Sports, and Corporate Media options

New Media Production Program Core (12 Credits)

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 2003 - Media Literacy *Credits: 3*

OR COMM 1201 - Film Study and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

News & Sports Courses (27 credits)

COMM 1401 - Journalism I *Credits: 3*

NMP 2020 - Television Studio Production *Credits: 3*

NMP 2028 - News, Documentary and Reality Programming *Credits: 3*

NMP 2064 - Advanced Video Editing *Credits: 3*

NMP 1047 - Digital Cinematography *Credits: 3*

COMM 1612 - Audio Production *Credits: 3*

OR DGA Elective *Credits: 3*

NMP 1110 - Introduction to Digital Graphics *Credits: 3*

OR NMP 1120 - Image Editing and the Pixel *Credits: 3*

Elective - COM/DGA/NMP *Credits: 3*

Elective - Any course number 1000 or higher *Credits: 3*

Total Credits: 60-61

New Media Production: Web Design and Development Certificate (NWDC-CC-NMP)

This certificate is pending final approval by spring 2023 governance

The Web Design and Development program offers students opportunities to integrate the world of computers, Internet, art and multimedia in completion of the certificate. It covers relevant areas of web site construction, including designing and programming pages, developing multimedia content, as well as building and managing a web site.

This program is designed not only for the person who wants to design and develop a personal web site, but also for the systems, publishing or business professional who would like to understand the capabilities of this powerful technology and to use it to provide innovative solutions to business problems.

This 30-credit certificate program is intended as a stackable credential for students looking to specialize in corporate media production. When enrolling in this program as a standalone occupational certificate, it is recommended that students entering the program either have an associate degree or higher or are enrolled in the Digital Media Production associate degree program to improve employability upon graduation.

Learning Outcomes:

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Workflow analysis and instructor review
 - Review of effective project delivery across platforms
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Work site supervisor and evaluation
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
Assessment:
 - Equipment and software certification tests
 - Project and instructor portfolio review
 - Continuous instructor review of online portfolio and social media presence
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
Assessment:
 - Equipment and software certification tests
 - Grading of written materials
 - Application of aesthetic techniques to class projects
 - Project and portfolio review
 - Thesis project instructor review and/or review by professional
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
Assessment:
 - Ability to apply aesthetics examined in media works to personal and class projects
 - Instructor review
 - Demonstrate successful collaboration with peers and professionals as needed
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
Assessment:
 - Demonstrate media literacy skills through presentation of written, aural and visual media
 - Research and evaluate media through audience analysis and critiques

- Instructor review
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.
Assessment:
 - Instructor review of experiential learning blogs and logs
 - On-site work supervisor evaluations of student work ethic, projects and collaboration
 - review of student experiential learning evaluation

Program is eligible for Workforce Innovation and Opportunity Act (WIOA)

Required Courses

NMP 1001 - Digital Media Foundations *Credits: 3*
NMP 1110 - Introduction to Digital Graphics *Credits: 3*
NMP 1120 - Image Editing and the Pixel *Credits: 3*
NMP 2210 - Web Productions Fundamentals *Credits: 3*
NMP 2220 - Web Production II *Credits: 3*
COMM 2502 - Social Media Strategy *Credits: 3*
NMP 2200 - Producing Interactive Media *Credits: 3*
Elective ART/COMM/GRA/NMP *Credits: 3*
NMP 2090 - Media Production Capstone *Credits: 3*
OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*
Open Elective *Credits: 3*

Total Credits: 30

New Media Production: Web Design and Development, AAS (NWDD-AAS-NMP)

The New Media Production Applied Associate of Science (A.A.S.) degree qualifies students to work in the many industries that require skills in digital media production. Before the end of their first semester students are required to enroll in a certificate, specializing in one of seven areas of media production targeted to the employment needs of the state's media businesses:

- Audio and Music
- Corporate Media
- Digital Marketing
- Film and Video
- Multimedia
- News and Sports
- Web Design and Development

Media is a collaborative creative business. To foster collaboration in an educational setting, the New Media Production program is designed as a cohort program. Students in their first semester are in a single cohort, taking the same courses which provide identified skills that all media production professionals should have including foundational digital media production skills, an understanding of media literacy and aesthetics, shooting and editing digital video, and knowledge about the various careers in media. At the end of that first semester, students declare their area of specialization by enrolling in one of the certificate programs. During the second and third semester, students break into smaller cohorts in their area of specialization. The larger cohort comes back together in the final semester to meet graduation requirements through the production of a capstone project of professional quality, collaborating with other members of the cohort who can bring their specialized skills to these portfolio productions. At least one internship is required to graduate from the program. Students graduate with two credentials, an AAS degree and a certificate that attest to their specialization in their selected area of production.

Students learn in a professional production environment, the \$2.5 million Center for New Media (CNM) on the Middlesex campus. CNM features advanced media production studios, labs and classrooms outfitted with the latest professional production equipment and instructional technology. A loan pool in the Center provides students with digital cinema and high-definition broadcast cameras, wireless microphones, professional light kits, audio mixers, camera dollies and other equipment needed to complete projects. There are 80 media production workstations in the Center with the latest industry-standard professional software, and a fast network infrastructure to access, manage and move large media files. CNM staff, educational assistants and student workers provide tutoring assistance, perform equipment certifications, and provide other educational support.

Students can intern with either outside businesses or the award-winning Center for New Media Productions. Center for New Media Productions' full-time media producer assigns crew positions and projects to students, something they would not normally get at an external internship.

The New Media Production Associate of Applied Science degree will provide students the opportunity to complete 21 credits of general education coursework. There are 24 credits of core program requirements divided into 12 credits of core courses that all New Media Production majors must take including 2 capstone courses and 12 credits of Program Requirements in their area of specialization. Further specialization is provided by 15 credits of Directed Electives.

NMP courses can only be taken at the Middletown campus.

New Media Learning Outcomes

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

In addition, *Web Design & Development* students will:

- Effectively use a variety of industry standard tools and processes for producing contemporary forms of digital media across multiple delivery platforms and delivery systems.
- Use advanced technologies within a chosen area of specialization with the goal of successfully transitioning from school to working in the industry.
- Plan, create and maintain a professional portfolio highlighting and marketing professional skills and capabilities. Showcase this portfolio via websites, blogs, and social media to achieve employment and educational goals.
- Demonstrate key competencies in media writing, video production, audio production, graphic design, interactive media, photography and other technologies within digital media arts.
- Apply critical thinking and aesthetic judgments in creating collaborative Digital Media projects.
- Communicate clearly, concisely, visually, verbally and in writing, using techniques appropriate for the intended audience.
- Apply course knowledge and gain media production experience in a work environment through experiential learning including internships, practicums and community engaged learning.

New Media Production General Education Core (21-22 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3* (or higher)

COMM 1601 - Digital Video Production *Credits: 3*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Recommended: COMM 1010 or ECON 1002

CCS 1001 - College & Career Success *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 2513 - Scriptwriting for Media *Credits: 3 **

*Required for Film & Video, News & Sports, and Corporate Media options

New Media Production Program Core (12 Credits)

NMP 1001 - Digital Media Foundations *Credits: 3*

OR NMP 1025 - New Media Production *Credits: 3*

NMP 2003 - Media Literacy *Credits: 3*

OR COMM 1201 - Film Study and Appreciation *Credits: 3*

NMP 2090 - Media Production Capstone *Credits: 3*

NMP 2095 - Center for New Media Productions Practicum *Credits: 3*

OR NMP 2195 - Experiential Learning and Practice in Media Production *Credits: 3*

Web Design & Development Courses (27 credits)

NMP 1110 - Introduction to Digital Graphics *Credits: 3*

COMM 2502 - Social Media Strategy *Credits: 3*

NMP 1120 - Image Editing and the Pixel *Credits: 3*

NMP 2210 - Web Productions Fundamentals *Credits: 3*

NMP 2220 - Web Production II *Credits: 3*

NMP 2200 - Producing Interactive Media *Credits: 3*

Elective - COM/DGA/NMP *Credits: 3*

Elective - COM/DGA/NMP *Credits: 3*

Elective - Any course number 1000 or higher *Credits: 3*

Total Credits: 60-61

Nuclear Engineering Technology, AS (NENT-AS)

This degree program was initially developed in the early 1980's with Millstone Station (then Northeast Utilities, since 2000 Dominion Nuclear Connecticut) in Waterford, CT as a direct result of the Three Mile Island Nuclear Plant accident and the new federal requirement by the Nuclear Regulatory Commission (NRC) for an educational component to compliment training for federal licensure for ALL operational positions in a commercial nuclear power plant. Millstone station continues to offer full scholarships for 16 new full-time freshmen enrolling the Nuclear Engineering Technology (NET) Degree program each academic year. These scholarships also include 12 weeks of summer internship employment at the Millstone Station site between the first and second academic year. Non-scholarship students have similar summer internship opportunities with other business members of the Nuclear Advisory Committee (such as Electric Boat, Mirion Corporation, Westinghouse, etc). The nuclear program is open to all qualified students, with or without scholarship support. Using classroom, laboratory, and simulator instruction, students are educated in the theories underlying the safe operation of nuclear power plan generating stations and the demonstration of this knowledge on a state-of-the-art, one- of-a-kind reactor simulator as the capstone event.

Potential job areas upon graduation include health physics, nuclear chemistry, nuclear plant mechanical and electrical maintenance, reactor operation, reactor systems engineering, instrument & control technician, and event planning. This degree program meets the Code of Federal Regulations (CFR) requirement for federal licensure for reactor operational positions. This career path involves further utility training with mandatory written and simulator NRC testing as the employee moves up the operational job structure. For many students, the NET degree is just an initial step in their academic career as they move to pursue higher academic degrees, typically in the Nuclear Engineering and/or Health Physics disciplines.

As this NET degree program is the only two-year program in the Northeast US, graduates are in high demand for entry level technician positions in the nuclear and health physics fields.

Learning Outcomes:

- Apply an understanding of nuclear systems and operations.
- Apply an understanding of radiological safety and radiation protection procedures.
- Know the applicable rules and regulations and describe the roles of maintenance, control, performance, and the human interface in nuclear operation and quality assurance.
- Understand, demonstrate, and value the safe operation of nuclear systems.
- Conduct, analyze, and interpret laboratory experimental data.
- Interpret laboratory analyses that measure nuclear and radiation processes.
- Demonstrate effective oral and written communication skills.
- Demonstrate the use of library and on-line information sources in problem solving.
- Serve as productive team members.
- Recognize the need to be life-long learners.

Dominion Scholarship Program: Dominion Nuclear Connecticut supports promising candidates for this Nuclear Engineering Technology program through its Dominion Nuclear Connecticut Millstone Power Station Engineering Technology Scholarships.

Up to sixteen two-year scholarships are awarded annually and cover the full cost of the program including tuition and fees, books and a monthly stipend. To be accepted into the Nuclear Engineering Technology degree program, students must meet the specific admission requirements along with other factors. **Learn more and complete the online Technology Energy Scholarship Application [here](#).**

Prerequisites to the Program (11 Credits)

MATH 1610 - Precalculus *Credits: 4*
 PHYS 1104 - Mechanics *Credits: 4*
 COMM 1301 - Public Speaking *Credits: 3*

General Education Courses (23-24 Credits)

ENG 1010 - Composition *Credits: 3*
 MATH 2600 - Calculus I *Credits: 4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 PHYS 1105 - Heat Sound Light *Credits: 4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
OR Elective HISX - Historical Knowledge Course *Credits: 3*
 ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (47-48 Credits)

CHEM 1210 - General Chemistry I *Credits: 4*

Computer Science Elective (CSA 1110 or CSC 1201 recommended) *Credits: 3-4*

EET 1044 - Fundamentals of Electric Circuits & Machines *Credits: 3*

EET 1045 - Fundamentals of Electric Circuits & Machines Lab *Credits: 1*

MATH 2610 - Calculus II *Credits: 4*

MECH 2072 - Fluid Mechanics & Thermodynamics *Credits: 4*

MECH 2074 - Heat Transfer *Credits: 2*

MECH 2075 - Thermal Sciences Lab *Credits: 1*

NTEC 1000 - Introduction to Nuclear Systems *Credits: 3*

NTEC 1100 - Radiation Health Safety *Credits: 2*

NTEC 1110 - Radiation Health Safety Lab *Credits: 1*

NTEC 1170 - Atomic & Reactor Physics *Credits: 4*

NTEC 1180 - Nuclear Chemistry *Credits: 1*

NTEC 2100 - Nuclear Instruments & Controls *Credits: 2*

NTEC 2110 - Nuclear Instruments & Controls Lab *Credits: 1*

NTEC 2200 - Nuclear Simulator *Credits: 1*

NTEC 2210 - Nuclear Simulator Lab *Credits: 1*

NTEC 2300 - Nuclear Topics *Credits: 2*

NTEC 2500 - Reactor Theory *Credits: 4*

NTEC 2600 - Nuclear Material Science *Credits: 2*

NTEC 2610 - Nuclear Material Science Lab *Credits: 1*

Total Credits: 67-69 (pre-program 14 credits)

Nuclear Medicine Technology, AS (NMDT-AS)

The Associate in Science degree program in Nuclear Medicine Technology prepare students for employment as nuclear medicine technologists in hospitals, medical offices, or ambulatory clinics. Upon completion of the program, the student may apply to take the certifying board examinations administered by the American Registry of Radiologic Technology (ARRT(N)) and the Nuclear Medicine Technology Certification Board (NMTCB). The program requires approximately twenty-two (22) months of clinical and academic course work. The curriculum includes appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements.

Program Learning Outcomes:

1. Students will demonstrate skills in effective oral and written communication
 - Students will demonstrate oral communication skills
 - Students will demonstrate written communication skills
2. Students will demonstrate skills in critical thinking and problem solving in the principles and practices of Nuclear Medicine
 - Students will assess patient requisitions in order to perform proper imaging procedures
 - Students will use critical thinking to overcome clinical challenges
3. Students will demonstrate clinical competence in the practice of Nuclear Medicine
 - Students will apply As Low as Reasonably Achievable (ALARA) principles and practices of radiation protection
 - Students will provide appropriate patient care

The mission of the Gateway Community College Nuclear Medicine Technology program is to offer high-quality instruction to a diverse population of students in an environment conducive to learning. We respond to the changing academic, occupational, technological, and cultural needs of both students and the community by strengthening our graduates through the inclusion of advanced technology, unique clinical internship experience, and quality patient care.

The major categories of the nuclear medicine technologist's scope of practice include, but are not limited to, the following areas (as defined in the "Scope of Practice for the Nuclear Medicine Technologist 2020", SNMMI Technologist Section:

<https://www.snmmi.org/AboutSNMMI/CommitteeContent.aspx?ItemNumber=5281>):

Patient Care: Requires the exercise of judgment to assess and respond to the patient's needs before, during, and following diagnostic imaging and treatment procedures and in patient medication reconciliation. This includes record keeping in accordance with the Health Insurance Portability and Accountability Act (HIPAA).

Instrumentation/Quality Control: Involves the operation of nuclear medicine and PET imaging systems: With or without sealed sources of radioactive materials, x-ray tubes, or MR systems for attenuation correction, transmission imaging, or diagnostic CT or MR (when appropriately trained and/or credentialed).

Quality control: The evaluation and maintenance of a quality control program for all instrumentation to ensure optimal performance and stability.

Diagnostic Procedures: Requires the utilization of appropriate techniques, radiopharmaceuticals, imaging medications and adjunctive medications as part of a standard protocol to ensure quality diagnostic images and/or laboratory results. Obtains biological samples to perform testing as required for the optimization of patient care and quality of diagnostic procedures.

Therapeutic Procedures: Requires the utilization of appropriate techniques, radiopharmaceuticals, and adjunctive medications as part of a standard protocol to ensure proper treatment of the disease process. Obtains biological samples to perform testing as required for the optimization of patient care.

Adjunctive Medications: Involves the identification, preparation, calculation, documentation, administration, and monitoring of adjunctive medication(s) used during diagnostic imaging, or therapeutic procedures. Imaging Medications: Involves the identification, preparation, calculation, documentation, administration, and monitoring of imaging medication(s) used during diagnostic imaging studies.

Imaging Medications: Involves the identification, preparation, calculation, documentation, administration, and monitoring of imaging medication(s) used during diagnostic imaging studies.

Radiopharmaceuticals: Involves the safe handling and storage of radiopharmaceuticals. This includes, but is not limited to, the procurement, identification, preparation, dose calculation, and administration of radiopharmaceuticals. It involves the safe handling and

storage of radiopharmaceuticals. This includes, but is not limited to, the procurement, identification, preparation, dose calculation, and administration of radiopharmaceuticals. It also includes all associated documentation and disposal as appropriate.

Radiation Safety: Involves practicing techniques that will minimize radiation exposure to the patient, health care personnel, and general public. These include using protective devices, shields, dose reduction, and monitors consistent with ALARA principles. Establishing protocols for managing spills and unplanned releases of radiation.

Admissions Procedure:

1. All students must first apply to CT State College.
2. Unless waived, all applicants must take placement tests in reading, English, and mathematics.
3. Attendance at one program specific information session.
4. Students must have a 2.7 GPA
5. Complete the following prerequisite courses
ENG 1010 - Composition (C or higher)
BIO 2111 - Anatomy & Physiology I (C or higher taken within past five years of program start date)
BIO 2112 - Anatomy & Physiology II (C or higher taken within past five years of program start date)
MATH 1600 - Pathway to Calculus: College Algebra (C or higher taken within five years of program start date)
6. Submit official copies of all transcripts.

Students in this program are responsible for expenses including but not limited to uniforms, physical examinations and blood work, travel to clinical sites, parking, meals, CPR training, background check and toxicology screening, dosimeters, textbooks, liability insurance, Trajecsys and CastleBranch. Specific information about these costs is available on the Nuclear Medicine webpage and in the Nuclear Medicine Program Student Handbook. Financial aid information is available through the College Financial Aid office.

Students will be charged the Supplemental Course (program) Fee Level 1 every fall and spring semesters while in the program.

Program Accreditation:

- The Nuclear Medicine Technology Program is accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT). The accreditation is currently under the home of Gateway Community College as we transition to the new structure of CT State Community College Gateway Campus. Additional information regarding accreditation can be found on the JRCNMT website (www.jrcnmt.org).

National Exams:

- Nuclear Medicine Technology Certification Board (NMTCB)
- American Registry of Radiologic Technologists (ARRT)(N)

Graduation Criteria

All program students must complete the following to receive an associate degree from the program. See the student handbook for complete details.

- Complete all didactic curricula with a final grade of C or better.
- Complete all clinical curricula with a final grade of C or better.
- Complete all competency exams with a final grade of 100%.
- Maintain all hospital and program standards as outlined in the program handbook.

Graduates of the program are eligible to take the Nuclear Medicine Technology Certification Board (NMTCB) American Registry of Radiologic Technologists, Nuclear Medicine Examination ARRT(N).

Clinical Experience will take place at:

- Yale-New Haven Hospital (New Haven)
- Yale-New Haven Hospital St. Raphael Campus (New Haven)
- Yale University PET Center (New Haven)
- The Veterans Affairs Connecticut Health Care System (West Haven)
- Middlesex Hospital (Middletown)
- Griffin Hospital (Derby)
- Cardinal Health Nuclear Pharmacy Services (East Hartford)
- Midstate Medical Center (Meriden)

- Bridgeport Hospital (Milford Campus)
- William W. Backus Hospital (Norwich)
- Lawrence & Memorial Hospital (New London)
- Stamford Hospital (Stamford)
- Greenwich Hospital (Greenwich)
- UCONN Medical Center (Farmington)
- Hospital of Central Connecticut (New Britain)
- Waterbury Hospital (Waterbury)

- Simulated labs are held in the Nuclear Medicine lab at the Gateway campus and are scheduled on lecture days.

Note: Students are responsible for their own transportation to and from class and clinical assignments. Due to standards from The Joint Commission, students are advised that the healthcare facilities to which they are assigned for clinical rotations may require that they submit a criminal background check, required immunization records and other documentation needed to meet the standards. CT State Community College cannot be responsible for finding an alternate clinical placement for a student who fails to meet the required hospital requirements. A student who is unable to complete the required clinical experience will be unable to complete the requirements for the associate degree in Radiation Therapy but may be able to apply some or all the credits completed to an associate degree in General Studies. Students are advised to meet with a Counselor to discuss degree completion requirements.

Clinical Curriculum

The structure of the curriculum is such that courses are offered in sequence and progress in complexity. It offers appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements established by the Nuclear Medicine Technology Certification Board (NMTCB) and the American Registry of Radiologic Technologist (ARRT.)

General Education Courses (22-23 credits)

- ENG 1010 - Composition *Credits: 3* (pre-admission requirement)
- MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3* (pre-admission requirement)
- Elective ARHX - Arts & Humanities Course *Credits: 3-4*
- CHEM 1110 - Concepts of Chemistry *Credits: 4*
- PSY 1011 - General Psychology I *Credits: 3*
- ENG 1020 - Composition II and Literature *Credits: 3*
- CCS 1001 - College & Career Success *Credits: 3*

Program Courses (47 credits)

- RST 1000 - Introduction to Patient Care for Radiologic Sciences *Credits: 2*
- RST 1000L - Introduction to Patient Care for Radiologic Sciences Lab *Credits: 1*
- NMED 1001 - Introduction to Nuclear Medicine *Credits: 3*
- NMED 1002 - Nuclear Medicine Procedures I *Credits: 3*
- PHYS 1101 - Physics for Life Sciences *Credits: 4*
- NMED 1194 - Clinical Practicum I *Credits: 1*
- NMED 1294 - Clinical Practicum II *Credits: 1*
- NMED 1195 - Clinical Internship I *Credits: 0.5*
- NMED 1221 - Physics in Nuclear Medicine *Credits: 3*
- NMED 1295 - Clinical Internship II *Credits: 3*
- RST 2000 - Cross Sectional Anatomy *Credits: 3*
- NMED 2002 - Nuclear Medicine Procedures II *Credits: 3*
- NMED 2004 - Nuclear Medicine Instrumentation *Credits: 3*
- NMED 2003 - Radiopharmacy *Credits: 3*
- NMED 2394 - Clinical Practicum III *Credits: 2*
- NMED 2494 - Clinical Practicum IV *Credits: 2*
- NMED 2395 - Clinical Internship III *Credits: 0.5*
- NMED 2102 - Nuclear Medicine Procedures III *Credits: 3*
- NMED 2095 - Nuclear Medicine Seminar *Credits: 3*
- NMED 2010 - Introduction to Computers and Nuclear Medicine Applications *Credits: 3*
- BIO 2111 - Anatomy & Physiology I *Credits: 4* (pre-admission requirement)
- BIO 2112 - Anatomy & Physiology II *Credits: 4* (pre-admission requirement)

Total Credits: 64-65 (Pre-program Credits: 14)

Nursing: Connecticut Community College Program, AS (NURS-AS)

The Connecticut Community College Nursing Program (CT-CCNP) is an innovative associate degree program of study offered at six Connecticut State Community College campuses (Capital, Gateway, Naugatuck Valley, Northwestern CT, Norwalk and Three Rivers community colleges). The common nursing programming offers a five-semester curriculum designed to prepare registered nurses to function in the professional role utilizing current standards of nursing practice.

The curriculum is built upon courses from the social and biological sciences, liberal arts, and nursing; these courses provide the foundation for the practice of nursing. The curriculum is organized by concepts that guide student learning about the nursing profession, health and illness, health care systems and patients who are the recipients of nursing care. The curriculum is guided by local, regional, and national standards and trends within healthcare, higher education, and the nursing discipline. The delivery of the curriculum is accomplished through a dynamic educational experience that involves active and diverse learning processes.

Learning Outcomes:

While providing nursing care to individuals, families, groups, communities, and populations within the health care system, the nursing graduate:

- Demonstrates communication strategies that promote accurate exchange of information, prevent and manage conflict, and establish and maintain therapeutic relationships.
- Integrates evidence-based practice into clinical decision-making for the provision of patient-centered care.
- Uses data and patient care technology to communicate, differentiate, and manage patient information to support clinical decision-making for optimal patient outcomes.
- Integrates leadership and priority-setting skills into the management and coordination of safe, quality, patient-centered care.
- 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.
- Integrates integrity and accountability that upholds established regulatory, legal, and ethical principles into cost effective, standard-based nursing care.
- Uses quality improvement to promote the delivery of patient-centered care and to optimize patient outcomes.
- Promotes a safe culture that minimizes the risk of harm to patients, self, and others at the work unit and health care system levels.
- Analyzes the impact of the health care system on the provision of safe, quality, patient-centered care at the level of the work unit.
- Collaborates with the interprofessional health care team to manage and coordinate the provision of safe, quality, patient-centered care.

The Connecticut Community College Nursing Program (CT-CCNP) prepares the student for entry-level practice as a registered nurse. The CT-CCNP is a selective admissions program. For admission criteria please refer to: Nursing Information Packet 2024-2025 Final.pdf

Consistent with the Connecticut State Community College mission and those of the colleges offering the program, the Mission of the CT-CCNP is to support students' aspirations to become a registered nurse, to advance their education, and to improve health within the communities served.

The Vision of the CT-CCNP is to be a personally and professionally rewarding academic program of choice. The CT-CCNP fosters diversity, innovation, quality, and excellence. As lifelong learners, CT-CCNP graduates impact the lives of those they care for, their communities of practice, and the profession of nursing.

The Philosophy of the CT-CCNP Curriculum is grounded in the metaparadigm of nursing, and a belief in dynamic, professional relationships between students and faculty. The metaparadigm or focus for the nursing discipline describes the roles of the nurse and directs professional practice. The metaparadigm includes four concepts, the Person, the Environment, the Nurse, and Health. The Person is considered within Environments of care where the Nurse promotes Health and manages illness in partnership with the Person and the interprofessional health care team.

The Person as the recipient of health care is distinctive, holistic, and worthy of respect. Their values, beliefs and goals must be honored and supported, regardless of the nurse's own values, beliefs and goals. The person is the central focus of the professional nurse. Sensitive and caring nursing practice demands an awareness of and respect for infinite types of relationships and perceptions of the world.

Environment is a literal or relative term. The environment of care is a healthcare setting or place where the human experience occurs and where nurses are a component of the interaction. Nurses interact with patients in a variety of settings within healthcare systems.

Health has multiple definitions; it is a dynamic state of the person/individual, family, group, community or population as they interact with the environment. Nurses assess and intervene in human responses to actual and potential health problems along a continuum from wellness to acute conditions, chronic illness, and end of life. Nurses assess patient's definition of health and collaboratively plan for patient-centered care.

The Nurse provides a unique interpersonal, professional service, cognizant of legal and ethical principles and grounded in caring. Nurses recognize the need for integrity, accountability, advocacy, and systems-based thinking as they provide safe, effective patient-centered care. A commitment to continuous quality improvement, leadership development, and lifelong learning is essential for nursing practice. The Nurse possesses the knowledge, skills and attitudes (KSAs) to apply the nursing process using evidence, reflection, and caring. Nurses also consider patient preferences when making clinical judgments to reach positive patient outcomes.

The CT-CCNP Concept-Based Curriculum (CBC) is organized by Concepts within the categories of Nursing Profession, Health and Illness, Health Care Systems and Patient Attributes. The curriculum is guided by local, regional and national standards and trends within healthcare, higher education, and the nursing discipline. The delivery of the curriculum is accomplished through a dynamic educational experience, which involves active and diverse learning processes. CT-CCNP graduates possess the capacity for sound clinical judgment that enables the achievement of optimum patient outcomes along the health-illness continuum across the lifespan.

After the Associate in Science degree is awarded, the graduate is eligible to apply for licensure through the Connecticut Department of Public Health and take the National Council Licensing Examination for Registered Nurses (NCLEX-RN.) The graduate is prepared to function as a safe, competent entry-level practitioner within settings across health care systems such as acute care (general or specialty hospitals), subacute or long-term care, and community based care settings such as provider offices and clinics.

The CT-CCNP curriculum has been approved by the Connecticut Board of Regents for Higher Education and 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 Capital Community College located in Hartford, Connecticut 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 nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.com/accreditedprograms/programsearch.htm>

The associate degree nursing program at Gateway Community College located in New Haven, Connecticut 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 nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.com/accreditedprograms/programsearch.htm>

The associate degree nursing program at Naugatuck Valley Community College located in Waterbury, Connecticut 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 nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.com/accreditedprograms/programsearch.htm>

The associate degree nursing program at Northwestern Connecticut Community College located in Winsted, Connecticut 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 nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.com/accreditedprograms/programsearch.htm>

The associate degree nursing program at Norwalk Community College located in Norwalk, Connecticut 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 nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.com/accreditedprograms/programsearch.htm>

The associate degree nursing program at Three Rivers Community College located in Norwich, Connecticut 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 nursing program is Continuing Accreditation.

View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.com/accruitedprograms/programsearch.htm>

Licensure Disclosure Statement:

The Connecticut Community College Nursing Program (CT-CCNP) at Capital Community College, Gateway Community College, Naugatuck Valley Community College, Norwalk Community College, Northwestern Connecticut Community College, and Three Rivers Community College meet the state education requirements for a Registered Nurse license in the state of Connecticut.

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: <https://www.ncsbn.org/membership/member-boards.page>

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 or higher

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 2350 - Microbiology *Credits: 4*

PSY 1011 - General Psychology I *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

OR ENG 1030 - Composition II and Non-fiction Texts *Credits: 3*

OR ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (49 credits)

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2112 - Anatomy & Physiology II *Credits: 4*

SOC 1001 - Principles of Sociology *Credits: 3*

PSY 2001 - Lifespan Development *Credits: 3*

NUR 1120C - Nursing in Health & Illness I *Credits: 9*

NUR 1125C - Nursing in Health & Illness II *Credits: 8*

NUR 2220C - Nursing in Health & Illness III *Credits: 9*

NUR 2225C - Nursing in Health & Illness IV *Credits: 8*

NUR 2226 - Transition to Professional Nursing Practice *Credits: 1*

Total Credits: 71-72

Nutrition and Dietetics, AS (NUDT-AS)

There is a growing demand for qualified personnel in the field of dietetics throughout the United States. The Nutrition and Dietetics Technician, Registered (NDTR) works under the supervision of a Registered Dietitian Nutritionist (RDN) in health care, food service management, and community nutrition programs. NDTRs also function as active members of the nutrition team by assessing, planning, implementing, and evaluating the nutritional care of individuals, or by supervising food service operations. The program reflects the coordination of theory and practice that is required for students to acquire the knowledge, attitudes, and skills necessary for competent practice in dietetics. A minimum of 450 hours of supervised internship provides opportunities to practice these skills.

Mission

The mission of the Nutrition and Dietetics program is to prepare graduates to become entry-level nutrition and dietetics technicians, registered with the competence and adaptability to compete successfully in diverse employment markets wherever food, nutrition, and fitness are emphasized.

Program Goal #1

The program will prepare graduates to be competent entry-level nutrition and dietetics technicians, registered.

Objectives:

Graduate Performance

1. At least 50% of program graduates take the CDR credentialing exam for nutrition and dietetics technicians within 12 months of program completion.

Graduate Performance

2. The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for nutrition and dietetics technicians is at least 70%.

Program Completion

3. At least 80% of students complete program/degree requirements within 3 years (150% of the program length).

Program Specific

4. At least 80% of graduates who completed the graduate survey will agree or strongly agree that the Nutrition and Dietetics program provides adequate teaching and training to become a competent dietetics professional.

Program Goal #2

To prepare graduates to successfully enter the Nutrition and Dietetics workforce.

Objectives:

1. Of graduates who seek employment, at least 70% are employed in nutrition and dietetics or related fields within 12 months of graduation.

Employer Satisfaction

2. At least 70% of employers will rate program graduates in their employ as having a satisfactory knowledge base for entry-level practice on surveys.

Graduate Satisfaction

3. At least 80% of graduates are confident in their ability to communicate in writing, speaking, and presenting Nutrition and Dietetics information to a variety of individuals and groups.

Program Student Learning Outcomes:

Accreditation Council for Education in Nutrition and Dietetics (ACEND) Competency Standards for Core Competencies (CNDT) for Nutrition and Dietetics Technician programs are incorporated into this program.

Domain 1. Scientific and Evidence Base of Practice: Integration of scientific information and translation

- CNDT 1.1 Access data, references, patient education materials, consumer and other information from credible sources.
- CNDT 1.2 Evaluate information to determine if it is consistent with accepted scientific evidence.
- CNDT 1.3 Collect performance improvement, financial, productivity or outcomes data and compare it to established criteria.
- CNDT 1.4 Implement actions based on care plans, protocols, policies and evidence-based practice.

Domain 2. Professional Practice Expectations: Beliefs, values, attitudes, and behaviors for the nutrition and dietetics technician practitioner level of practice.

- CNDT 2.1 Adhere to current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Practice for the Nutrition and Dietetics Technician, Registered, Standards of Practice, Standards of Professional Performance, and Code of Ethics for the Profession of Nutrition and Dietetics.
- CNDT 2.2 Use clear and effective oral and written communication.
- CNDT 2.3 Prepare and deliver sound food and nutrition presentations to a target audience.
- CNDT 2.4 Demonstrate active participation, teamwork and contributions in group settings.
- CNDT 2.5 Function as a member of interprofessional teams.
- CNDT 2.6 Refer situations outside the nutrition and dietetics technician scope of practice or area of competence to a registered dietitian nutritionist or other professional.
- CNDT 2.7 Actively contribute to nutrition and dietetics professional and community organizations.
- CNDT 2.8 Demonstrate professional attributes in all areas of practice.
- CNDT 2.9 Show cultural humility in interactions with colleagues, staff, clients, patients and the public.
- CNDT 2.10 Advocate for local, state or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession.

Domain 3. Clinical and Customer Services: Development and delivery of information, products, and services to individuals, groups, and populations.

- CNDT 3.1 Perform nutrition screening and identify clients or patients to be referred to a registered dietitian nutritionist.
- CNDT 3.2 Perform specific activities of the Nutrition Care Process as assigned by registered dietitian nutritionists in accordance with the Scope of Practice for the Nutrition and Dietetics Technician, Registered for individuals, groups and populations in a variety of settings.
- CNDT 3.3 Provide nutrition and lifestyle education to well populations.
- CNDT 3.4 Promote health improvement, food safety, wellness and disease prevention for the general population.
- CNDT 3.5 Develop nutrition education materials for disease prevention and health improvement that are culturally and age appropriate and designed for the literacy level of the audience.
- CNDT 3.6 Present an educational session to a target population.
- CNDT 3.7 Perform supervisory functions for purchasing, production, and service of food that meets nutrition guidelines, cost parameters, and health needs.
- CNDT 3.8 Modify recipes and menus for acceptability and affordability that accommodate the cultural diversity and health status of various populations, groups and individuals.

Domain 4. Practice Management and Use of Resources: Strategic application of principles of management and systems in the provision of services to individuals and organizations.

- CNDT 4.1 Deliver nutrition services through quality improvement and customer satisfaction activities.
- CNDT 4.2 Perform supervisory, education, and training functions.
- CNDT 4.3 Use current information technologies to develop, manage and disseminate nutrition information and data.
- CNDT 4.4 Assist in developing a plan for a new service including budget.
- CNDT 4.5 Implement and adhere to budgets.
- CNDT 4.6 Assist with marketing clinical and customer services.

- CNDT 4.7 Propose and use procedures as appropriate to the practice setting to promote sustainability, reduce waste and protect the environment.

Domain 5. Leadership and Career Management: Skills, strengths, knowledge and experience relevant to leadership potential and professional growth for the nutrition and dietetics practitioner.

- CNDT 5.1 Perform self-assessment that includes awareness in terms of learning and leadership styles and cultural orientation and develop goals for self-improvement.
- CNDT 5.2 Identify and articulate one's skills, strengths, knowledge and experiences relevant to the position desired and career goals.
- CNDT 5.3 Prepare a plan for professional development according to Commission on Dietetic Registration guidelines.
- CNDT 5.4 Advocate for opportunities in the professional settings (such as asking for additional responsibility, practicing negotiating a salary or wage or asking for a promotion).
- CNDT 5.5 Promote team involvement and value the skills of each member.
- CNDT 5.6 Mentor others.
- CNDT 5.7 Identify and articulate the value of precepting.

The Nutrition and Dietetics program is currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics (AND), 120 South Riverside Plaza, Suite 2190, Chicago, Illinois 60606-6995; (312) 899-0040 ext. 5400 or (800) 877-1600; www.eatright.org/acend.

Graduates of the program are encouraged to take the Commission on Dietetic Registration's registration examination to become a NDTR. Graduates may take the Association of Nutrition & Foodservice Professional exam to become a Certified Dietary Manager, Certified Food Protection Professional (CDM, CFPP.) Graduates are also eligible for membership in the Academy of Nutrition and Dietetics and the Association of Nutrition & Foodservice Professionals.

Students who wish to transfer to an approved four-year program in dietetics should consult the program coordinator regarding the transferability of courses.

Admissions Procedure: All students must first apply to and be accepted by the College. Unless waived, all applicants must take placement tests in reading, English, and mathematics. Students in this program are responsible for expenses for uniforms, physical examinations, travel to field sites, parking, meals, CPR training, and drug testing. Specific information about these costs and coverage for accident and liability insurance is available from the Program Coordinator, Elaine Lickteig, and in the Nutrition & Dietetics Student Guide. A complete physical examination is required before supervised internship begins. Financial aid information is available through the College Financial Aid office.

Graduation Requirements: In addition to the College's general requirements, this program requires a minimum grade of "C" (73 percent) in each and all science, math and program-specific courses. The student must also successfully complete all of the program competencies and must pass the National Restaurant Association Sanitation exam. The program coordinator reserves the right to recommend to the College the withdrawal of any student from the Nutrition and Dietetics program whose health, clinical performance, attendance, or conduct does not meet the program standards. Students are encouraged to complete the program requirements within 5 years. Upon successful completion of the Nutrition and Dietetics program, graduates will receive a verification statement. The signed verification statement documents that an individual has completed the requirements of a nutrition and dietetics education program accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND®). It allows the CT State Community College Nutrition and Dietetics program graduate to establish eligibility to sit for the registration examination for nutrition and dietetics technicians.

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1002 - Math for Science and Technology *Credits: 3*

OR MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (41 credits)

HOSP 1109 - Food Safety Certification *Credits: 1*
BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
NTRN 1001 - Introduction to Dietetics *Credits: 3*
NTRN 1002 - Nutrition I: Principles of Nutrition *Credits: 3*
NTRN 1020 - Foods *Credits: 3*
NTRN 1003 - Nutrition Therapy I *Credits: 3*
NTRN 1005 - Food Management System *Credits: 3*
NTRN 2095 - Nutrition Internship I *Credits: 3*
NTRN 2000 - Nutrition Through the Life Cycle *Credits: 3*
NTRN 2001 - Community Nutrition Education *Credits: 3*
NTRN 2195 - Nutrition Internship II *Credits: 3*
NTRN 2002 - Nutrition Therapy II *Credits: 3*
NTRN 2005 - Management in Dietetics *Credits: 3*
NTRN 2295 - Nutrition Internship III *Credits: 3*

Total Credits: 63

Occupational Therapy Assistant, AS (OTAS-AS)

Program Design

The American Occupational Therapy Association in its VISION 2025 statement describes Occupational Therapy as "an inclusive profession that maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living."

Scholastic Preparation and Admission Process

The Occupational Therapy Assistant Program utilizes a selective admissions process and applicants are required to meet specific admission criteria in preparation for the academic rigor of the OTA Program. The OTA application is available online, after October 1, with a Feb 1 deadline for applications, annually.

To qualify for application to the Occupational Therapy Assistant Program, students must have a grade point average at or above 2.5, and have completed BIO 1111, ENG 1010, and PSY 1011 with a grade of C or better, as well as CCS 1001. Applicants must also be eligible for college level math, and have attended an OTA Information Session.

Curriculum

The OTA program offers an accelerated, a full-time and part-time plan of study, thereby enabling the student to complete the program in 3 semesters, 4 semesters or 5 semesters respectively.

- **Accelerated track:** Open to students who have completed all general education requirements prior to program application. This allows the student to complete the OTA 2034 course in the first semester (typically offered within third semester), representing two semesters of academic coursework on campus and the completion of the clinical within the third semester.
- **Full-Time track:** Provides three semesters of academic coursework and the completion of the clinical within the fourth semester.
- **Part-Time track:** Provides four semesters of academic coursework, by distributing the spring semester coursework over two spring semesters and the completion of the clinical within the fifth semester.

Courses with the OTA designator are offered exclusively during the day and must be completed at CT State. OTA courses from another institution may not be transferred into the OTA Program. Credit for previous course completion including AP courses must be evaluated by the Admissions office to be accepted for transfer. Credit is not provided for prior work experiences inclusive of experiential learning. All course work must be completed with a grade of C or better and a minimum GPA of 2.5 must be maintained throughout the program. The clinical semester, which is offered both fall and spring semesters, provides two 8-week, full-time, supervised learning experiences with a focus on psychosocial, physical dysfunction and pediatrics areas of practice. Students must complete the clinical semester within 18 months of the completion of academic work. Due to standards set by the Joint Commission, students are advised that the fieldwork sites to which they are assigned for fieldwork rotations, as well as state regulations, may require that they submit to a criminal background check before beginning their fieldwork experiences. CT State Community College cannot be responsible for finding an alternate clinical placement for a student who fails to pass the background check. A student who is unable to complete the required fieldwork experiences will be unable to complete the requirements for the associate degree in Occupational Therapy, but may be able to apply some or all of the credits completed to an associate degree in General Studies. In such cases students are advised to meet with a guided pathway advisor to discuss alternate degree completion requirements.

Accreditation

The program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 6116 Executive Blvd, Ste 200, North Bethesda, MD 20852-4929. ACOTE's telephone number c/o AOTA is (301) 652-AOTA and its Web address is www.acoteonline.org. We are pleased to announce that our previously accredited program has undergone a consolidation with the twelve community colleges in Connecticut and now operates under Connecticut State Community College. ACOTE has transferred accreditation of the Manchester Community College OTA program to the Connecticut State Community College. The data presented herein corresponds to the program under its former name, Manchester Community College.

Learning Outcomes:

- Upon successful completion of all Occupational Therapy Assistant degree program requirements, graduates will
- Sit for the national certification exam.
- Demonstrate the clinical skills required for working as an Occupational Therapy Assistant.

- Demonstrate the interpersonal skills necessary to function as a Certified Occupational Therapy Assistant.
- Comprehend the scope of occupational therapy practice.
- Apply principles in analysis and application of occupational therapy treatment in the spectrum of human occupation.
- Complete the comprehensive learning outcomes identified with the General Education Core.

Certification

Graduates of the program are eligible to sit for the national certification examination for the Occupational Therapy Assistant, administered by the National Board for Certification in Occupational Therapy (NBCOT) - . After successful completion of this exam, the graduate will be a Certified Occupational Therapy Assistant (COTA). Additionally, all states require licensure to practice; However, state licenses are usually based on the results of the NBCOT certification exam. A felony conviction may affect a graduate's ability to sit for the NBCOT certification exam or attain state licensure. Program results from the National Board for Certification in Occupational Therapy (NBCOT) can be found at <https://www.nbcot.org/Educators-Folder/SchoolPerformance>.

Year	Total Number of New Graduates Testing	Total Number of New Graduates Passing (% passing)	Total Number of New Graduates Failing (% failing)
2022	19	19 (100%)	0 (0%)
2021	14	14 (100%)	0 (0%)
2020	16	16 (100%)	0 (0%)
2019	16	15 (94%)	1 (6%)
2018	16	16 (100%)	0 (0%)

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1003 - Elementary Statistics *Credits: 3*

OR MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4 (Recommended)*

(Pending Spring 2023 Shared Governance Approval)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

ANTH 1018 - Health, Healing, and Culture *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (41 credits)

PSY 2001 - Lifespan Development *Credits: 3*

OTA 1000 - Foundations of Occupational Therapy *Credits: 3*

OTA 1200 - Neurologic Intervention in Occupational Therapy *Credits: 4*

OTA 2095 - Level I Advanced Fieldwork *Credits: 1*

OTA 2008 - Healthcare Management in Occupational Therapy *Credits: 3*

OTA 2010 - Occupational Therapy Practice in Pediatrics *Credits: 3*

OTA 2010L - Occupational Therapy Practice in Pediatrics Lab *Credits: 1*

OTA 2016 - Occupational Therapy Practice in Physical Dysfunction *Credits: 3*

OTA 2016L - Occupational Therapy Practice in Physical Dysfunction Lab *Credits: 1*

OTA 2018 - Occupational Therapy Practice in Mental Health *Credits: 3*

OTA 2018L - Occupational Therapy Practice in Mental Health Lab *Credits: 1*

OTA 2034 - Documentation in Occupational Therapy *Credits: 3*

OTA 2195 - Level II Fieldwork *Credits: 11*

OTA 2090 - Clinical Seminar in Occupational Therapy *Credits: 1*

Total Credits: 63*

* Actual Total Credits is 66 when including PSY 1011, which must be completed prior to admission to the OTA program.

Ophthalmic Design & Dispensing, AS (ODD-AS)

The Ophthalmic Design and Dispensing (OD&D) at Middlesex Campus of Connecticut (CT) State Community College is designed for students that have solid math and problem-solving skills, love to help others and enjoy hands-on work. Students would like to work in a medical-related field, but without the time and financial commitments in getting a PhD. The OD&D program at Middlesex Campus of CT State Community College provides an affordable and flexible Associate Degree to meet student needs. This two-year degree program prepares students for future work as licensed opticians working to help others through the design and dispensing of eyeglasses, contact lenses and low-vision aids.

This program is designed for individuals who are interested in becoming licensed opticians. Successful completion of this program will be accepted in lieu of the four-year, 8000-hour apprenticeship requirement to become a licensed optician in the State of Connecticut. This degree is also accepted in many states in order to be eligible for licensure.

Learning Outcomes:

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

- Communicate effectively through development of proficiency in oral/written/electronic communication skills
- Demonstrate proficiency in critical thinking and problem-solving skills
- Complete the requirements for National Certification by the American Board of Opticianry
- Complete the requirements for National Certification by the National Contact Lens Examiners
- Demonstrate the practical skills required to successfully complete the optical portion of the State of Connecticut - Board of Examiners State Practical Exam
- Demonstrate the practical skills required to successfully complete the contact lens portion of the State of Connecticut - Board of Examiners State Practical Exam
- Demonstrate familiarity with the statutes and regulations in Chapter 381 (Opticians) of the Connecticut General Statutes and Regulations and successfully complete the State Law portion of the State of Connecticut - Board of Examiners State Practical Exam
- Meet the minimum education requirement for licensing as an optician in all of the states requiring licensure for opticians

Selective Admission: Enrollment in the program is restricted because of limited lab facilities, and early application is encouraged.

- Only completed applications with all documents will be considered.
- Students are admitted to the fall term only.
- Students must meet with program coordinator and take a program-specific math worksheet as part of the admissions process.
- Students must be eligible for ENG 1010 and MATH 1010 to begin this program.
- Official transcripts are required for transfer credit.
- Ophthalmic Design and Dispensing students must receive a grade of C or better in Ophthalmic Dispensing courses in order to obtain a degree in this program. With an OD&D Degree from Middlesex Campus of CT State Community College, a student can get work in an optical shop, corporate optical business, private Optometrist's office, or a private Ophthalmologist's office.

How long will you have to go to school?

Most students are able to finish the program within 21 months or 2- calendar years. Our program encourages lifelong learning and many of our students continue on to bachelors degrees. A small percent of students choose to continue their education to become Optometrists and Ophthalmologists, both of which require Doctoral level degrees. Job Availability & Growth: Spurred by the demographic of the baby boomers and the elderly, an increasing demand for eyewear and contact lenses should be good for the optician. As the aging population continues to grow, more demand will be created for corrective lenses and a requirement for regular vision care. Fashion will also continue to drive the demand for dispensing opticians. As ophthalmic and contact technology continues to develop the demand for the services of opticians will increase.

The Ophthalmic Design and Dispensing Program is accredited by the Commission on Opticianry Accreditation, PO Box 592, Canton, NY 13617.

General Education Courses (22-23 credits)

ENG 1010 - Composition Credits: 3

MATH 1010 - Intermediate Algebra Credits: 3

OR MATH 1600 - Pathway to Calculus: College Algebra Credits: 3

Elective ARHX - Arts & Humanities Course Credits: 3-4

BIO 1118 - Anatomy and Physiology of the Eye Credits: 4

PSY 1011 - General Psychology I Credits: 3
COMM 1301 - Public Speaking Credits: 3
CCS 1001 - College & Career Success *Credits: 3*

Program Courses (46 credits)

BMGT 2020 - Principles of Management *Credits: 3*
OPDD 1001 - Introduction to Ophthalmic Dispensing *Credits: 4*
OPDD 1002 - Ophthalmic Dispensing I *Credits: 4*
OPDD 1003 - Ophthalmic Dispensing II *Credits: 3*
OPDD 1009 - Optical Business Management *Credits: 3*
OPDD 1010 - Ophthalmic Materials I *Credits: 4*
OPDD 1011 - Ophthalmic Materials II *Credits: 4*
OPDD 1020 - Contact Lenses I *Credits: 3*
OPDD 1021 - Contact Lenses II *Credits: 4*
OPDD 1022 - Contact Lenses III *Credits: 4*
OPDD 1030 - Low Vision *Credits: 1*
OPDD 1004 - Ophthalmic Dispensing III *Credits: 3*
OPDD 1012 - Ophthalmic Materials III *Credits: 4*
OPDD 2095 - Opticianry Practicum *Credits: 2*

Total Credits: 68-69

Paralegal Certificate (PARL-CC)

The Paralegal Certificate Program is designed for students who have or will concurrently receive an educational (not vocational) associate or baccalaureate degree in a major other than paralegal or legal studies from an accredited institution. The certificate program provides them with the opportunity to enroll in a paralegal studies program that meets guidelines set by the American Bar Association. Students must submit an official transcript, evidencing an undergraduate degree, to the Admissions office for review.

A paralegal is a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible. Paralegals may not provide legal services directly to the public except as permitted by law. Paralegals may not give legal advice or engage in the unauthorized practice of law.

The paralegal curriculum prepares qualified individuals to carry out complex tasks involved in rendering skilled assistance to lawyers, including in banks, insurance companies, private law firms, corporate offices, and public and agencies. Paralegals may be asked to conduct research and prepare memoranda; to draft pleadings and motions, deeds or contracts; to interview clients or witnesses; to prepare responses to discovery requests; or to digest depositions. Paralegals may prepare inventories, accounts and tax returns in connection with estates and trusts; perform real estate title searches and UCC searches; calendar and track important deadlines; or organize and maintain client files. An option in the program is a cooperative education/work experience course in which students gain practical experience in a legal setting while earning academic credit.

The 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 deepen their knowledge and upgrade their skills. Professional ethics and the paralegal's role within the legal profession are emphasized throughout the curriculum.

The Manchester Community College Paralegal Certificate Program is currently approved by the American Bar Association and has been since 1998. Effective July 1, 2023, Manchester Community College will become a campus of CT State Community College and the Paralegal Certificate Program will be offered at Manchester as well as at the additional locations of Housatonic, Naugatuck Valley, Norwalk, and Tunxis.

Learning Outcomes:

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

- Recognize and describe the proper role of the paralegal in the delivery of legal services to the public and apply the ethical rules that govern the conduct of the legal profession.
- Demonstrate critical thinking, reasoning and analytical skills; conduct factual and legal research using print and computerized methods; and organize and present information effectively, both orally and in writing.
- Describe the organization of the American legal system, apply procedural law to litigation and administrative agency law, and demonstrate substantive knowledge of principles of law.
- Draft and interpret legal documents, including pleadings, deeds, mortgages, probate documents, court forms, business documents, and contracts for review by the supervising attorney.
- Perform file and case management tasks in accordance with office policy and court procedures, using problem-solving, organizational and computer skills.
- Recognize opportunities for professional development through continuing education and affiliation with professional organizations.

Admission Requirement:

Students in the Paralegal Certificate Program must have an undergraduate degree before they can receive the certificate. Students must submit an official copy of their undergraduate transcript, showing that they have been awarded an undergraduate degree.

Program Requirements

LGL 1001 - Introduction to Legal Studies *Credits: 3*

OR POLS 1020 - Introduction to Law *Credits: 3*

LGL 1002 - Legal Research and Writing *Credits: 3*

LGL 2008 - Litigation *Credits: 3*

LGL 2020 - Computer Applications in Law *Credits: 3*

Choose Two of These (6 credits)

- LGL 1004 - Real Estate Practice *Credits: 3*

- LGL 2009 - Probate Practice& Estate Admin *Credits: 3*
- LGL 2011 - Business Organization *Credits: 3*

Choose Two Legal Electives (6 credits)

- LGL 1004 - Real Estate Practice *Credits: 3*
- LGL 2003 - Criminal Law *Credits: 3*
- LGL 2004 - Criminal Procedure *Credits: 3*
- LGL 2006 - Bankruptcy Law *Credits: 3*
- LGL 2009 - Probate Practice& Estate Admin *Credits: 3*
- LGL 2010 - Family Law *Credits: 3*
- LGL 2011 - Business Organization *Credits: 3*
- LGL 2012 - Contract Law *Credits: 3*
- LGL 2013 - Juvenile Law *Credits: 3*
- LGL 2016 - Administrative Law *Credits: 3*
- LGL 2090 - Advanced Legal Issues Seminar *Credits: 3*
- LGL 2095 - Coop Ed Work Experience *Credits: 3*
- LGL 2190 - Legal Studies Capstone *Credits: 3*
- LGL 2195 - Legal Internship *Credits: 3*

Total Credits: 24

Paralegal, AS (PARL-AS)

A paralegal is a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible. Paralegals may not provide legal services directly to the public except as permitted by law. Paralegals may not give legal advice or engage in the unauthorized practice of law.

The paralegal curriculum prepares qualified individuals to carry out, in a professional manner, many of the complex tasks involved in rendering skilled assistance to lawyers, including in banks, insurance companies, private law firms, corporate offices, and public and agencies. Paralegals may be asked to conduct research and prepare memoranda; to draft pleadings and motions, deeds or contracts; to interview clients or witnesses; to prepare responses to discovery requests; or to digest depositions. Paralegals may prepare inventories, accounts and tax returns in connection with estates and trusts; perform real estate title searches and UCC searches; calendar and track important deadlines; or organize and maintain client files.

The 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 deepen their knowledge and upgrade their skills. Professional ethics and the paralegal's role within the legal profession are emphasized throughout the curriculum.

Learning Outcomes:

Upon successful completion of all Paralegal degree program requirements, graduates will

- Recognize and describe the proper role of the paralegal in the delivery of legal services to the public and apply the ethical rules that govern the conduct of the legal profession.
- Demonstrate critical thinking, reasoning and analytical skills, conduct factual and legal research using print and computerized methods, and organize and present information effectively, both orally and in writing.
- Describe the organization of the American legal system, apply procedural law to litigation and administrative agency law, and demonstrate substantive knowledge of principles of law.
- Draft and interpret legal documents, including pleadings, deeds, mortgages, probate documents, court forms, business documents, and contracts for review by the supervising attorney.
- Perform file and case management tasks in accordance with office policy and court procedures, using problem-solving, organizational and computer skills.
- Recognize opportunities for professional development through continuing education and affiliation with professional organizations.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

The Manchester Community College Paralegal Degree Program is currently approved by the American Bar Association and has been since 1984. Effective July 1, 2023, Manchester Community College will become a campus of CT State Community College and the Paralegal Degree Program will be offered at Manchester as well as at the additional locations of Housatonic, Naugatuck Valley, Norwalk, and Tunxis.

General Education Courses (21-23 credits)

ENG 1010 - Composition Credits: 3

MATH 1000 - Mathematics of Finance Credits: 3 or higher (college level)

Elective ARHX - Arts & Humanities Course Credits: 3-4

Elective SCRX - Scientific Reasoning Course Credits: 3-4

OR Elective SCKX - Scientific Knowledge Course Credits: 3-4

Elective SBSX - Social / Behavioral Science Course Credits: 3

OR Elective HISX - Historical Knowledge Course Credits: 3

Elective ORAX - Oral Communication Course Credits: 3

OR Elective WRIX - Written Communication II Course Credits: 3

CCS 1001 - College & Career Success Credits: 3

Program Courses (39 credits)

LGL 1001 - Introduction to Legal Studies Credits: 3

OR POLS 1020 - Introduction to Law Credits: 3

LGL 1002 - Legal Research and Writing Credits: 3

LGL 1004 - Real Estate Practice Credits: 3

LGL 2008 - Litigation *Credits: 3*

LGL 2009 - Probate Practice& Estate Admin *Credits: 3*

LGL 2011 - Business Organization *Credits: 3*

LGL 2190 - Legal Studies Capstone *Credits: 3*

OR LGL 2195 - Legal Internship *Credits: 3*

LGL 2020 - Computer Applications in Law *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

OR BUSN 2340 - Legal Environment of Business *Credits: 3*

LGL Electives - Choose 4 courses from:

- LGL 2004 - Criminal Procedure *Credits: 3*
- LGL 2006 - Bankruptcy Law *Credits: 3*
- LGL 2010 - Family Law *Credits: 3*
- LGL 2012 - Contract Law *Credits: 3*
- LGL 2016 - Administrative Law *Credits: 3*
- LGL 2090 - Advanced Legal Issues Seminar *Credits: 3*
- LGL 2095 - Coop Ed Work Experience *Credits: 3*
- LGL 2013 - Juvenile Law *Credits: 3*
- LGL 2003 - Criminal Law *Credits: 3*

Total Credits: 60-62

Paramedic Studies Certificate (PARM-CC)

The Paramedic Certificate Program is designed for students to acquire knowledge and skills in order to provide pre-hospital emergency medical care to those individuals needing advanced life support (ALS). Graduates of the program are skilled in advanced life support necessary to meet the needs of those agencies or institutions providing emergency medical services to the community. Classroom, simulated laboratory and clinical experiences in the paramedic program include content and practice skills related to the emergency medical care of pre-hospital patients.

Included in the curriculum are certifications in Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), and Prehospital Trauma Life Support (PHTLS). Upon successful completion of the certificate program, the graduate will be qualified to take the National Registry of Emergency Medical Technicians (NREMT) paramedic exam for national certification as a paramedic. The NREMT certification can then be used to obtain CT licensure as a paramedic. Additional fees are required for exam and state licensure.

Learning Outcomes:

Upon successful completion of the paramedic program, the graduate will be able to demonstrate the ability to comprehend, apply, and evaluate theoretical information relevant to the role of entry-level paramedic. The graduate will:

- Provide advanced emergency medical care for patients who access the emergency medical services (EMS) system
- Integrate the complex knowledge and skills necessary to provide advanced level patient care and transportation
- Function as a member of the comprehensive EMS response system, under medical oversight
- Perform patient care interventions including invasive and pharmacological interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies
- Utilize knowledge of anatomy, physiology, and pathophysiology to develop advanced patient assessment strategies

Admission to the certificate program requires current certification as a Connecticut emergency medical technician (EMT) or advanced emergency medical technician (AEMT), current certification in American Heart Association Basic Life Support (BLS), and proof of at least 50 patient contacts in the prehospital environment. Candidates will also need to pass a drug screening, background check, and entrance exam.

Students will be required to maintain a Field Internship Student Acquisition Project (FISDAP) account and have access to a portable web-enabled device for all PMD classes. PMD 211 requires 220 hours of field experience which will occur at EMS agencies around the state.

The certificate program is designed to prepare students to take the National Registry of Emergency Medical Technician (NREMT) paramedic exam. After passing this exam, the graduate will be able to apply for state licensure as a paramedic.

Capital Community College's Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). Commission on Accreditation of Allied Health Education Programs: 9355-113th St. N, #7709, Seminole FL 33775. Phone: (727) 210-2350, Fax: (727) 210-2354, Email: mail@caahep.org. Committee on Accreditation of Educational Programs for the EMS Professions: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088, 214-703-8445, 214-703-8992 (fax), www.coaemsp.org

All courses taken in this certificate program can lead to an associate degree in Paramedic Studies program.

Required Courses

- PMED 1011 - Paramedic I *Credits: 8*
- PMED 1012 - Paramedic II *Credits: 8*
- PMED 1013 - Paramedic III *Credits: 7*
- PMED 1020 - Anatomy and Physiology for Emergency Care I *Credits: 2*
- PMED 1021 - Anatomy and Physiology for Emergency Care II *Credits: 2*
- PMED 2014 - Paramedic IV *Credits: 7*

Total Credits: 34

Paramedic Studies, AS (PARM-AS)

The Associate in Science Degree in Paramedic Studies is designed as an extension to the Paramedic Certificate program. Graduates of this program will be prepared to assume management-level careers in pre-hospital health administration. They will have learned the skills necessary to plan, implement and manage pre-hospital care. The Emergency Medical Services (EMS) Instructor Option prepares the student to apply for CT certification as an EMS Instructor.

Career opportunities available for graduates of this program include employment as supervisors or managers of emergency medical services and as educational coordinators.

Learning Outcomes:

Both program options share the following outcomes. Upon successful completion of the paramedic program, the graduate will be able to demonstrate the ability to comprehend, apply, and evaluate theoretical information relevant to the role of entry-level paramedic. The graduate will:

- Provide advanced emergency medical care for patients who access the emergency medical services (EMS) system
- Integrate the complex knowledge and skills necessary to provide advanced level patient care and transportation
- Function as a member of the comprehensive EMS response system, under medical oversight
- Perform patient care interventions including invasive and pharmacological interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies
- Utilize knowledge of anatomy, physiology, and pathophysiology to develop advanced patient assessment strategies
- Demonstrate enhanced written, verbal, and non-verbal communication skills
- Demonstrate enhanced leadership and teamwork abilities

In addition to the above shared outcomes, the Paramedic Studies graduate will:

- Demonstrate an enhanced understanding of the scientific process, research, and evidence-based medicine
- Demonstrate an understanding of social sciences, arts, and humanities

Capital Community College's Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). Commission on Accreditation of Allied Health Education Programs: 9355-113th St. N, #7709, Seminole FL 33775. Phone: (727) 210-2350, Fax: (727) 210-2354, Email: mail@caahep.org. Committee on Accreditation of Educational Programs for the EMS Professions: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088, 214-703-8445, 214-703-8992 (fax), www.coaemsp.org

The CT State Paramedic Studies program accreditation with The Committee on Accreditation for the EMS Professions requires the completion of the PMED 1011, PMED 1012, PMED 1013, and PMED 2014 courses at Connecticut State Community College. No external credit shall be awarded to meet these course requirements.

Paramedic Studies General Education Core (21-22 credits)

ENG 1010 - Composition Credits: 3
 MATH 1010 - Intermediate Algebra Credits: 3
 Elective ARHX - Arts & Humanities Course Credits: 3-4
 CHEM 1110 - Concepts of Chemistry Credits: 4
 OR BIO 2350 - Microbiology Credits: 4
 PSY 1011 - General Psychology I Credits: 3
 ENG 1020 - Composition II and Literature Credits: 3
 CCS 1001 - College & Career Success Credits: 3

Paramedic Studies Program Core (37 credits)

SOC 1001 - Principles of Sociology Credits: 3
 PMED 1011 - Paramedic I Credits: 8
 PMED 1012 - Paramedic II Credits: 8
 PMED 1013 - Paramedic III Credits: 7
 PMED 1020 - Anatomy and Physiology for Emergency Care I Credits: 2
 PMED 1021 - Anatomy and Physiology for Emergency Care II Credits: 2
 PMED 2014 - Paramedic IV Credits: 7

Paramedic Studies Courses (9 credits)

BUSN 2100 - Business Communications *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BMGT 2200 - Human Resource Management *Credits: 3*

Total Credits: 67-68

Paramedic Studies: Emergency Medical Services Instructor, AS (PARM-AS-EMS)

The Associate in Science Degree in Paramedic Studies is designed as an extension to the Paramedic Certificate program. Graduates of this program will be prepared to assume management-level careers in pre-hospital health administration. They will have learned the skills necessary to plan, implement and manage pre-hospital care. The Emergency Medical Services (EMS) Instructor Option prepares the student to apply for CT certification as an EMS Instructor.

Career opportunities available for graduates of this program include employment as supervisors or managers of emergency medical services and as educational coordinators.

Learning Outcomes:

Both program options share the following outcomes. Upon successful completion of the paramedic program, the graduate will be able to demonstrate the ability to comprehend, apply, and evaluate theoretical information relevant to the role of entry-level paramedic. The graduate will:

- Provide advanced emergency medical care for patients who access the emergency medical services (EMS) system
- Integrate the complex knowledge and skills necessary to provide advanced level patient care and transportation
- Function as a member of the comprehensive EMS response system, under medical oversight
- Perform patient care interventions including invasive and pharmacological interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies
- Utilize knowledge of anatomy, physiology, and pathophysiology to develop advanced patient assessment strategies
- Demonstrate enhanced written, verbal, and non-verbal communication skills
- Demonstrate enhanced leadership and teamwork abilities

In addition to the above shared outcomes, the Paramedic Studies, Emergency Medical Services Instructor Option graduate will:

- Demonstrate an understanding of educational theory as it applies to EMS education
- Demonstrate the ability to teach cognitive, psychomotor, and affective lessons within an EMS curriculum
- Demonstrate the communication and organizational skills requisite of holding an EMS management position
- Demonstrate an understanding of EMS program administration, CT-specific legal considerations, and record-keeping responsibilities
- Demonstrate the ability to assess student performance in all domains of learning

Capital Community College's Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). Commission on Accreditation of Allied Health Education Programs: 9355-113th St. N, #7709, Seminole FL 33775. Phone: (727) 210-2350, Fax: (727) 210-2354, Email: mail@caahep.org. Committee on Accreditation of Educational Programs for the EMS Professions: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088, 214-703-8445, 214-703-8992 (fax), www.coaemsp.org

The CT State Paramedic Studies program accreditation with The Committee on Accreditation for the EMS Professions requires the completion of the PMED 1011, PMED 1012, PMED 1013, and PMED 2014 courses at Connecticut State Community College. No external credit shall be awarded to meet these course requirements.

Paramedic Studies General Education Core (21-22 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1010 - Intermediate Algebra *Credits: 3*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 CHEM 1110 - Concepts of Chemistry *Credits: 4*
OR BIO 2350 - Microbiology *Credits: 4*
 PSY 1011 - General Psychology I *Credits: 3*
 ENG 1020 - Composition II and Literature *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Paramedic Studies Program Core (37 credits)

SOC 1001 - Principles of Sociology *Credits: 3*
 PMED 1011 - Paramedic I *Credits: 8*
 PMED 1012 - Paramedic II *Credits: 8*
 PMED 1013 - Paramedic III *Credits: 7*

PMED 1020 - Anatomy and Physiology for Emergency Care I *Credits: 2*

PMED 1021 - Anatomy and Physiology for Emergency Care II *Credits: 2*

PMED 2014 - Paramedic IV *Credits: 7*

EMS Instructor Course (9 credits)

EMS 1001 - Emergency Medical Service Education *Credits: 9*

Total Credits: 67-68

Pathway to Teaching Careers, AA (PTCH-AA)

This program is designed for students who wish to transfer to a Connecticut State University to pursue teacher certification in elementary and/or secondary education. This program also prepares students for teacher preparation programs at many private institutions. The courses will prepare students to fulfill general education requirements, begin foundational work in education theory and practice, and develop greater expertise in their fields of study. Upon successful completion of the program, students will be eligible to transfer their credits to a CSU, where they can apply for acceptance into the teacher certification program. Students are advised to review the requirements of the transfer institution with their academic advisor prior to course selection.

Learning Outcomes:

In addition to meeting the general education outcomes, graduates will:

- Work creatively with others, including culturally and intellectually diverse peoples; think critically; and demonstrate an appreciation for learning.
- Describe the role of the teacher in the classroom.
- Identify the requirements for teaching based on academic program requirements and state certification requirements.
- Recognize broader historical, cultural, global and scientific perspectives as they relate to education.
- Demonstrate a respect for others, coupled with an understanding of ethical behavior and civic responsibility.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH Requirement *Credits: 3-4*

MATH 1004 - Math for Elementary Education: Algebra/Number Systems (Pre-Elem Ed)

MATH 1100 - Quantitative Reasoning (Pre-Secondary Ed Non-STEM)

MATH 1600 - Pathway to Calculus: College Algebra (Pre-Secondary Ed STEM)

OR MATH 2600 - Calculus I (Pre-Secondary Ed STEM)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4* **See advisor for recommendations.**

HIST 1015 - US History to 1877 *Credits: 3*

OR HIST 1016 - US History from Reconstruction *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39-45 credits)

EDUC 2010 - Foundations of U.S. Education *Credits: 3*

EDUC 2020 - Normal and Exceptional Childhood and Adolescent Development *Credits: 3*

OR ECED 2515 - Exceptional Learners *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

For Elementary Education Emphasis *Credits: 3* ECED 1002, PSY 2001, or PSY 2004

OR For Secondary Education Emphasis *Credits: 3* PSY 2001 or PSY 2004 *Recommended Courses: See advisor based on transfer institution and endorsement level.*

For Elementary Education Emphasis *Credits: 3-4*

MATH 1004 Math for Elementary Education: Algebra/Number Systems

OR For Secondary Education Emphasis *Credits: 3-4*

MATH 1100 Math for the Liberal Arts or higher

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

COMM 1301 - Public Speaking *Credits: 3*

OR COMM 1010 - Introduction to Mass Communication *Credits: 3*

World Language *Credits: 0-8* - Choose 0-8 credits of a Foreign Language, ASL, or the two upper-level courses of ESL. *If exempt from all or some of world language requirement through placement, choose appropriate number of content area electives to meet total credit requirement for the degree (minimum 60).*

Content Area Electives *Credits: 7-23* - Choose appropriate number of content area electives to meet total credit requirement for the degree (minimum 60).

Total Credits: 60-66

Phlebotomy: Certified Phlebotomy Technician Certificate (PHLB-CC)

A phlebotomist is an integral member of the medical laboratory team whose primary function is the collection of blood samples from patients and donors. The phlebotomist facilitates the collection and transportation of laboratory specimens, and is often the patient's only contact with the medical laboratory. The need to assure quality and patient safety mandates strict professional behavior and standards of practice for phlebotomists. Safety is key and all safety precautions must be taken to prevent the transmission of infectious diseases. Positions are flexible and can consist of full time, part time, and per diem. This 16 credit certificate consists of 5 courses that will prepare the student to sit for a national Phlebotomy certificate exam allowing them to work in any state and perform all duties required of a Phlebotomy Technician.

Learning Outcomes:

- Recall and articulate medical terminology and healthcare abbreviations.
- Perform blood collection techniques using the evacuated tube system, capillary puncture, and winged infusion methods.
- Demonstrate safe and precise collection, transportation, and handling of human specimens.
- Perform specimen processing procedures, including specimen assessment, proper centrifugation, specimen aliquoting, specimen triage, specimen storage and retrieval, and specimen transport (intra- laboratory).
- Control infection using aseptic techniques in all stages of venipuncture.
- Apply appropriate legal and ethical standards to the practice of healthcare.
- Develop life management skills, work ethics, and critical thinking skills necessary for all health providers.

Required Courses

MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*

HLTH 1070 - Medical Law and Ethics *Credits: 3*

PHLB 1001 - Techniques of Phlebotomy *Credits: 3*

PHLB 1072 - Concepts in Specimen Processing for Phlebotomists *Credits: 3*

PHLB 2095 - Phlebotomy Practicum *Credits: 4*

Total Credits: 16

Photography Certificate (PHOT-CC)

The Photography Certificate program provides new and returning students with the knowledge and skills to compete for entry-level positions in the diverse field of photography and/or the opportunity to add or combine photography skills to related expertise in graphic design, journalism, communication or public relations. Courses in the Photography Certificate program help students build a working portfolio and can also be applied toward completing the Photography Option Visual Fine Art Associate Degree.

Learning Outcomes:

- Demonstrate an understanding of terminology, concepts, techniques and equipment relating to a broad range of photographic processes and procedures.
- Make informed and meaningful compositional/aesthetic decisions, with an emphasis on critical thinking, problem solving, creativity, project parameters and deadlines.
- Be able to use industry standard hardware and software to produce work suitable for a variety of entry-level positions in a very competitive field.

Required Courses

ART 1450 - Digital Photography I *Credits: 3*

ART 1460 - Digital Photography II *Credits: 3*

Choose 1 of the following 3-credit courses:

ART 1410 - Darkroom Photography I

ART 1810 - Digital Video Art I

ART 2430 - Studio Photography I

ART 2470 - Commercial Photography

Choose 3 of the following courses (9 credits):

ART 1110 - Drawing I

ART 1220 - Three-Dimensional Design

ART 1250 - Color Theory

ART 1410 - Darkroom Photography I

ART 1420 - Darkroom Photography II

ART 1810 - Digital Video Art I

ART 2095 - Art Internship

ART 2430 - Studio Photography I

ART 2470 - Commercial Photography

ART 2810 - Digital Painting & Drawing

ART 2090 - Portfolio Preparation I

DGA 1101 - Introduction to Computer Graphics

Total Credits: 18

Physical Therapist Assistant, AS (PTAS-AS)

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 contemporary physical therapy care.

Vision:

The program emphasis on innovative and data-driven teaching methods, technology, and communication facilitates learning in the classroom and the clinic as the program endeavors to educate students who:

- Strive for excellence as physical therapist assistants by providing safe and effective interventions.
- Commit to high ethical standards.
- Appreciate and value racial, social, economic, and cultural diversity.
- Utilize critical reflection.
- Invest in community involvement.
- Engage in lifelong learning.
- Provide patient-centered interprofessional collaborative care.

Philosophy:

We believe the Physical Therapist Assistant curriculum:

- Develops appropriate and critical professional behaviors and core values to create ethical practitioners.
- Is based on a liberal arts education and the concentrated study and application of new knowledge in physical therapy.
- Emphasizes the development of written, oral, and technological communication skills.
- Provides a variety of learning experiences to enhance the student's critical thinking abilities, problem solving skills, and values identification.
- Promotes inter-professional education with other disciplines and programs within the college and community.

Program Outcomes:

- 70% or more of admitted students will complete the program within 1 ½ times the length of the program (3 years) as reported using Commission on Accreditation in Physical Therapy Education (CAPTE) standards.
- 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%.
- 90% of the graduates who seek employment as a Physical Therapist Assistant will attain a position within one year of graduation.

Program Goals:

Upon successful completion of all program requirements, the Physical Therapist Assistant Program will prepare graduates who:

- Display skill competence in the cognitive, psychomotor, and affective domains necessary to provide safe, effective, and evidence-based physical therapy services under the direction and supervision of a physical therapist.
- Demonstrate effective communication and education skills through professional interactions with consideration for individual differences, values, preferences, and expressed needs.
- Demonstrate self-assessment and interest in lifelong learning by participating in professional development activities which include volunteerism, advocacy, and leadership.
- Adhere to ethical, professional behavior, legal, regulatory, and licensure standards within their scope of work as a physical therapist assistant.
- Participate in the healthcare environment as an effective member of the healthcare team while providing patient-centered interprofessional collaborative care.

Program Description:

The Physical Therapist Assistant (PTA), two-year Associate of Science degree programs, are designed to develop the competencies and knowledge required for entering the field of Physical Therapy. The Physical Therapist Assistant Programs will provide fundamental and theoretical knowledge as well as practical skills to prepare the student to assume the role of the PTA.

Each program is approved by the Board of Regents for Higher Education and individually accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).

Graduates are eligible to take the National Physical Therapist Assistant Examination administered by The Federation of State Boards of Physical Therapy (FSBPT). Graduates who pass this exam are eligible to apply for a license in the State of Connecticut or their respective state of practice.

Each program prepares the student to be a licensed health care professional who works under the direction and supervision of the physical therapist providing physical therapy interventions and associated data collection techniques. Interventions include therapeutic exercise, physical modalities, and other specialized clinical skills needed in a variety of settings such as acute care hospitals, rehabilitation hospitals, subacute and long-term care facilities, outpatient physical therapy clinics, school systems, and home care settings.

PTAs help people from birth to end of life who have medical, or other health-related conditions, that limit their ability to move and perform functional activities in their daily lives. Care provided by a PTA may include teaching patients/clients exercise for mobility, strength and coordination, training for activities such as walking with crutches, canes, or walkers, manual therapy, and the use of physical agents and electrotherapy such as ultrasound and electrical stimulation.

Admissions:

Admission to the program is selective and competitive; a limited number of students are admitted per cohort. Space is limited. Meeting minimum requirements does not guarantee admission into the program.

Please contact the specific program location for their application and requirements. The program at CSCC Naugatuck Valley campus has a spring semester (January) start to each cohort. The program at CSCC Norwalk campus has a fall semester (August) start to each cohort.

1. Complete all College admission requirements.
2. Complete PTA Application. Must be submitted by the posted deadline, including supporting for current contact information.
3. Completion of the prerequisite courses:
 1. General Biology I (BIO 1210) with a C+ or better within 5 years of the application deadline
 2. Statistics I (MATH 1200) with a C or better within 5 years of the application deadline
 3. Composition (ENG 1010) with a C or higher
 4. General Psychology I (PSY 1011) with a C or higher
4. Have a minimum admissions GPA of 2.5. The 4 admission requirements are used in the calculation of this GPA.
5. Complete the Test of Essential Academic Skills (TEAS) exam with a minimum score of 60%. There are no exemptions from this entrance exam based on prior education. For the PTA program, the TEAS test expires after 3 years. Students may take the nursing or allied health version of the test, as the content of both is the same. Students may take either the in-person or online version of the TEAS test. Students may take the TEAS test at any school, in any state; have the TEAS test scores sent to the respective campus. Students may repeat the TEAS to improve their score.
6. Documented volunteer/observational experience totaling at least 20 hours in two different settings. Please contact the individual campus requested for specific requirements.
7. Students must be able to perform common physical therapy functions as defined in the program's Technical Standards.

Additional Program Information

In addition to tuition and fees, students in the PTA Program are responsible for additional costs, such as, books, American Physical Therapy Association (APTA) student membership, clinical site requirements, appropriate attire for lab and clinical experiences, licensure review courses, required certifications, and transportation. Students must complete all medical requirements, including but not limited to current immunizations and medical forms. Students will pay an Allied Health Fee each semester.

Students will be required by the program to undergo a background check which may include fingerprinting for felony convictions and undergo a drug/substance screening. Students who do not pass the background check may be excluded from clinical sites, 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 will have their case reviewed, which may result in dismissal from the program.

The Physical Therapist Assistant Program at Naugatuck Valley Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave., Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; email: accreditation@apta.org ; website: <http://www.capteonline.org> .

The Physical Therapist Assistant Program at Norwalk Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave., Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; email: accreditation@apta.org ; website: <http://www.capteonline.org>

Those with program questions should contact the Program Directors directly. See their respective website for current contact information.

With respect to code 668.43 (a)(5)(v), the program has determined that its curriculum meets the state educational requirements for licensure or certification in all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands secondary to its accreditation by the Commission on Accreditation in Physical Therapy Education, based on the following:

CAPTE accreditation of a physical therapist or physical therapist assistant program satisfies state educational requirements in all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Thus, students graduating from CAPTE-accredited physical therapist and physical therapist assistant education programs are eligible to take the National Physical Therapy Examination and apply for licensure in all states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.

For more information regarding state qualifications and licensure requirements, refer to the Federation of State Boards of Physical Therapy (FSBPT) website at www.fsbpt.org.

Transfer options

Courses from an associate level PTA degree do not typically transfer to a graduate level Doctor of Physical Therapy (DPT) program, however, general education courses, such as math and English will count toward the bachelor's degree required for admission to a PT program. PTA/technical education courses may transfer to a four-year school as electives. Check with the school you plan to attend for details. PTAs who go on to PT school have the advantage of vast background knowledge in physical therapy, as well as the ability to work a flexible schedule for higher pay while attending school.

The PTA program does not accept transfer students or credits toward PTA courses from U.S. or international programs, including PT, Occupational Therapy (OT), PTA, Occupational Therapy Assistant (OTA), or any other similar program. There are strict accreditation requirements, as well as extensive variability between programs across the country and around the world. All students wishing to graduate from a PTA program must complete the entire technical portion of the program at one campus. This does not exclude individuals from completing general education (non-PTA) courses at another institution.

General Education Courses (23-24)

- ENG 1010 - Composition *Credits: 3*
- MATH 1200 - Statistics I *Credits: 3*
- Elective ARHX - Arts & Humanities Course *Credits: 3-4*
- BIO 1210 - General Biology I *Credits: 4*
- PSY 1011 - General Psychology I *Credits: 3*
- Elective WRIX - Written Communication II Course *Credits: 3*
- BIO 2111 - Anatomy & Physiology I *Credits: 4*

Program Courses (44 credits)

- CCS 1001 - College & Career Success *Credits: 3*
- BIO 2112 - Anatomy & Physiology II *Credits: 4*
- PTA 1200 - Introduction to Physical Therapy *Credits: 3*
- PTA 1250 - Foundational Skills in Physical Therapy *Credits: 4*
- PTA 1300 - Clinical Anatomy & Kinesiology *Credits: 3*
- PTA 1450 - Physical Agents in Physical Therapy *Credits: 3*
- PTA 1500 - Physical Therapy Interventions in Orthopedics *Credits: 4*
- PTA 1550 - Pathology for the Physical Therapist Assistant I *Credits: 3*
- PTA 2500 - Physical Therapy Interventions in Special Populations *Credits: 3*
- PTA 2550 - Pathology for the Physical Therapist Assistant II *Credits: 3*
- PTA 2580 - PTA in the Healthcare Arena *Credits: 1*
- PTA 2694 - Physical Therapist Assistant Part-Time Clinical Experience *Credits: 1*
- PTA 2794 - Physical Therapy Assistant Full-Time Clinical Experience I *Credits: 3*
- PTA 2894 - Physical Therapist Assistant Full-Time Clinical Experience II *Credits: 3*
- PTA 2990 - Physical Therapy Seminar *Credits: 3*

Total Credits: 67-68

Physics Studies - TAP/CSCU Transfer Degree, AA (PHYS-AA-TAP)

The CSCU Pathway Transfer Degree: Physics Studies, A.A. degree program prepares students primarily for transfer to complete a B.S. degree in physics. Graduates will receive a background in mathematics, science, and general education courses for seamless transfer of all credits and junior status in a B.S. degree at Connecticut State Universities.

Learning Outcomes:

Students completing this degree will be prepared to transfer to the CSUs as an incoming Junior, and will be able to:

- Communicate using terminology appropriate to Physics Studies.
- Understand conceptual, theoretical and experimental methods used in Physics, and their applications to other fields and disciplines
- Develop critical thinking, and analytical and computational problem-solving skills.
- Recognize the broader impact of Physics in Society.

With this degree you will be able to transfer to the following majors.

At Central Connecticut State University: Physics, B.S.

At Southern Connecticut State University: Physics, B.S. Physics, B.A.

Framework Courses (33 credits)

ENG 1010 - Composition *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

CHEM 1210 - General Chemistry I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CHEM 1220 - General Chemistry II *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3* (Recommended COMM 1301)

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (29 credits)

MATH 2610 - Calculus II *Credits: 4*

MATH 2620 - Calculus III: Multivariable *Credits: 4*

MATH 2622 - Differential Equations *Credits: 4*

PHYS 2201 - Calculus-Based Physics I *Credits: 4*

PHYS 2202 - Calculus-Based Physics II *Credits: 4*

Elective CRTY - Creativity Course *Credits: 3*

Elective GLKY - Global Knowledge Course *Credits: 3*

Unrestricted Elective - If you have not taken Physics in high school, you should use this elective to take PHYS 1100 *Credits: 3*

Total Credits: 62-63

Political Science Studies - TAP/CSCU Transfer Degree, AA (POLS-AA-TAP)

CSCU Pathway Transfer, A.A. degree programs are for Connecticut Community College students who wish to transfer to one of the Connecticut State Universities or Charter Oak without either losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline. Community College students can 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.

Learning Outcomes:

Upon successful completion of the CSCU Pathway Transfer: Political Science Studies degree program, students will have met the following competency outcomes and goals:

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

With this degree students will be able to transfer to the following majors:

At Central Connecticut State University: Political Science, B.A.
 At Eastern Connecticut State University: Political Science, B.A.
 At Southern Connecticut State University: Political Science, B.A., Political Science, B.S.
 At Western Connecticut State University: Political Science, B.A.
 At Charter Oak State College: General Studies - Political Science Concentration, B.A.

Framework Courses (31-34 credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1100 or higher *Credits: 3-4*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective WRIX - Written Communication II Course *Credits: 3*
 Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30 credits)

Elective CRTY - Creativity Course *Credits: 3*
 Elective GLKY - Global Knowledge Course *Credits: 3*
 POLS 1002 - American Government *Credits: 3*
 One additional POLS course *Credits: 3*
 One additional POLS course *Credits: 3*
 Unrestricted Electives *Credits: 15*

You are free to choose any courses at or above 1000-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 at least 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.

Total Credits: 61-64

Pre-Dental Hygiene Transfer Compact, AA (LASC-AA-DHY)

The CT State Community College Pre-Dental Hygiene Transfer Compact is designed to provide academic opportunities for students who are seeking a Bachelor of Science Degree in Dental Hygiene at University of New Haven (UNH). Students may complete pre-requisite and general education courses at CT State Community College and transfer into the University of New Haven's Dental Hygiene Program. Students who complete the Associate in Arts Degree and have followed the Pre-Dental Hygiene track are eligible to apply for admission to the University of New Haven's Dental Hygiene Program.

Learning Outcomes:

Students who complete the Associate in Arts Degree and have followed the Pre- Dental Hygiene track are eligible to apply for admission to the University of New Haven's Dental Hygiene Program. After completing the Bachelor of Science Degree in Dental Hygiene from the University of New Haven, graduates will be eligible to take both the Dental Hygiene National Board Examination and the Northeast Regional Board Examination in order to apply for the Registered Dental Hygienist (RDH) License.

The Program in Dental Hygiene at the University of New Haven is accredited by the Commission on Dental Accreditation of the American Dental Association. The University of New Haven Dental Hygiene articulation agreement states that students must receive a "C" or higher in all pre-dental hygiene transfer compact courses in order to be transferred to UNH.

General Education Courses (22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*

OR ARTH 1002 - Global Art History 1500 CE to present *Credits: 3*

OR MUS 1001 - Music History & Appreciation I *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

PSY 1011 - General Psychology I *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (43 credits)

BIO 1005 - Introduction to Biology *Credits: 4*

OR BIO 1210 - General Biology I *Credits: 4*

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2112 - Anatomy & Physiology II *Credits: 4*

BIO 2350 - Microbiology *Credits: 4*

COMM 1301 - Public Speaking *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

PHIL 1101 - Ethics *Credits: 3*

PSY 1012 - General Psychology II *Credits: 3*

NTRN 1002 - Nutrition I: Principles of Nutrition *Credits: 3*

HIST 1001 - Western History to the 1500s *Credits: 3*

OR HIST 1002 - Western History from the 1500s *Credits: 3*

DENT 1005 - Introduction to Dental Hygiene I *Credits: 1*

DENT 1006 - Introduction to Dental Hygiene II *Credits: 1*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

FREN 1012 - Elementary French II *Credits: 4 or higher*

OR ITAL 1012 - Elementary Italian II *Credits: 4 or higher*

OR SPAN 1012 - Elementary Spanish II *Credits: 4 or higher*

Total Credits: 65

Pre-Nutrition Transfer Degree, AS (LASC-AS-NTR)

This program is designed for students who seek to become a Registered Dietitian/Nutritionist. Upon completion of the associate pre-nutrition degree, students have the opportunity to apply for transfer to a 4- year university to complete the degree for Registered Dietitian/Nutritionist.

Learning Outcomes:

- Demonstrate ability to think critically and creatively.
- Demonstrate ability to effectively communicate in oral and written form.
- Demonstrate ability to understand basic scientific principles.
- Demonstrate ability to understand, evaluate and apply nutrition principles.

Articulation Schools: University of Connecticut - Storrs, University of New Haven, and University of Maine. University of St. Joseph articulation agreement in process.

Check if your transfer school will accept hybrid or online science labs for transfer.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 or higher *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1011 - Introduction to Nutrition *Credits: 3*

ANTH 1001 - Introduction to Anthropology *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (43 credits)

MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

CHEM 1210 - General Chemistry I *Credits: 4*

CHEM 1220 - General Chemistry II *Credits: 4*

CHEM 2310 - Organic Chemistry I *Credits: 4*

BIO 1210 - General Biology I *Credits: 4*

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2112 - Anatomy & Physiology II *Credits: 4*

BIO 2350 - Microbiology *Credits: 4*

Two 200-level Language and Culture Courses *Credits: 6* Note: students who test out of language courses are still required to take two 200-level courses as recommended by an advisor.

ENG 1020 - Composition II and Literature *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

OR SOC 1001 - Principles of Sociology *Credits: 3*

Students planning on transferring to a 4-year school should consult with their transfer school on the course to take in this category.

Total Credits 64-65

Quality Control Certificate (QUAL-CC)

The Quality Control Certificate program is a sequence of courses that prepares students for the Certified Quality Technician (CQT) certification examination by the American Society for Quality Control (ASQC). The program assists students to develop competencies in concepts and techniques, statistical methods, sampling principles, reliability principles and applications, metrology and calibration fundamentals, quality data, quality analysis, problem solving and cost methodology, quality audit concepts and principles, geometry, trigonometry, and metric conversion.

Learning Outcomes:

- Identify, analyze, and solve technical problems in quality control, statistical processes, data analysis, metrology, and calibration systems
- Configure and apply measurement systems hardware and software
- Implement quality assessments and analyze data from test results

Graduates of this program possess the skills to identify, repair, analyze, modify, and improve basic manufacturing production systems. The experience and training gained in the Quality Control certificate program will also prepare students for implementing manufacturing cost methodologies and quality audit concepts.

Required Courses

EGR 1120 - Engineering Drawing Specs *Credits: 3*
OR MFG 1424 - Blueprint Reading 1 *Credits: 3*
MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*
MFG 1411 - Manufacturing Materials & Processes I *Credits: 3*
MFG 1413 - Principles of Quality Control *Credits: 3*
MFG 2216 - Tool Design *Credits: 4*
MFG 2230 - Statistical Process Control *Credits: 3*

Total Credits: 19

Psychology Studies - TAP/CSCU Transfer Degree, AA (PSYC-AA-TAP)

Students must declare the Transfer Ticket: CSCU Pathway Transfer Degree: Psychology Studies. A.A. major as their intended path of study. With this degree, students will be able to transfer to the following majors at a State University or Charter Oak State College:

- Central Connecticut State University Psychological Science, B.A.
- Eastern Connecticut State University Psychology, B.S. Once you transfer to Eastern, you will have the opportunity, with the permission of an advisor, to select one of the following concentrations: Behavior Analysis Developmental Psychology, Industrial-Organizational Psychology, Mental Health Counseling
- Southern Connecticut State University Psychology, B.A.
- Western Connecticut State University Psychology, B.A.
- Charter Oak State College Psychology, B.S.

Learning Outcomes:

- Students can transfer to one of the four state universities in the CSCU System including Charter Oak State College.
- Understand and use terminology appropriate to Psychology Studies.
- Understand theories and research methods used in Psychology Studies.
- Apply critical thinking and problem-solving skills in Psychology Studies.
- Recognize the need to engage in life-long learning.

There is a recommended course of study for the CSCU Pathway Transfer Degree: Psychology Studies, A.A. If you are studying part time, simply follow the order of the courses listed here. Note that not all courses will be available every semester. You will notice that in many instances you will be able to choose the specific course you will take from within a category from provided lists of the courses in the required categories. Students are strongly encouraged to take PSY 112 General Psychology II, which can fulfill the Social/Behavioral Science (SBSX) General Education Requirement. Students can also take one or two additional PSY courses, with advisement.

For Unrestricted Electives, students are free to choose any courses at or above 1000-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 at least 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.

To graduate and be guaranteed admission to a State University or Charter Oak State College, the student must have an overall 2.0 grade point average.

Framework Courses (31-33 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30-33 credits)

PSY 1011 - General Psychology I *Credits: 3*

PSY 2001 - Lifespan Development *Credits: 3*

OR PSY 2004 - Child and Adolescent Development *Credits: 3*

OR PSY 2008 - Psychology of Adult Development and Aging *Credits: 3*

(For students considering transferring to CCSU, PSY 2001 is the recommended choice. For students considering transferring to WCSU, any course in this list other than PSY 2001 is recommended.)

PSY 2045 - Abnormal Psychology *Credits: 3*

Elective GLKY - Global Knowledge Course *Credits: 3*

Elective CRTY - Creativity Course *Credits: 3*

THE ELECTIVES CHOSEN FROM THE BELOW TWO CATEGORIES MUST COMBINE FOR 15 CREDITS

Choose one or two of the three courses below

PSY 2040 - Social Psychology *Credits: 3*

OR PSY 2043 - Theories of Personality *Credits: 3*

OR PSY 2047 - Industrial & Organizational Psychology *Credits: 3*

Unrestricted Electives *Credits: 9-12*

(Students are strongly encouraged to take PSY 1012 General Psychology II . Students can also take one or two additional PSY courses, with advisement.)

Total Credits: 61-63

Public Utility Management, AS (PUTM-AS)

The Public Utility Management program will provide graduates with a wide variety of career options in the electricity, natural gas, drinking water and wastewater public utility fields. The industry offers an array of career tracks for those with a strong technical background as well as graduates with an aptitude in business, marketing, accounting, information technology, data analysis, and office administration. Credits from the Certificate in Water Management count toward an associate degree in Public Utility Management. Earning an Associate of Science Degree in Public Utility Management allows the opportunity for a seamless transfer to Southern Connecticut State University (SCSU) where students can earn a bachelor's degree in Business Administration with a specialization in Public Utility Management.

Learning Outcomes:

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

- Describe and apply the operations of public utility management
- Apply effective written and oral communication skills to articulate opportunities, ideas, and problems identified, as well as appropriate strategic responses across the economic social, environmental, public and political spheres
- Formulate team dynamics and working in groups, particularly in relation to the functioning of critical incident response teams
- Devise and translate ideas into logical steps that utilize resources and establish best practices with colleagues for customers and suppliers/vendors
- Employ and make use of written documents such as Environmental Protection Agency methods of analysis, internal standard operating procedures, safety rules, policy manuals, and professional journals
- Analyze and interpret the legal and/or regulatory implications of business and utility management
- Perform laboratory testing and analyses required for operational control and regulatory compliance

This program transfers to Southern Connecticut State University's Business Administration - Public Utility Management B.S. degree.

General Education Courses (22 Credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

OR ENG 1030 - Composition II and Non-fiction Texts *Credits: 3*

ENV 1010 - Introduction to Environmental Science *Credits: 3* AND ENV 1010L *Credits: 1*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (42 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1170 - Principles of Managerial Accounting *Credits: 3*

BMGT 1410 - Public Utility Management *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

BUSN 2400 - Business Ethics *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BMGT 2416 - Rates and Revenues *Credits: 3*

BMGT 2419 - Asset and Infrastructure Management *Credits: 3*

BMGT 2421 - Customer Relations *Credits: 3*

ECON 1002 - Principles of Microeconomics *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

ENV 1100 - Environmental Regulations *Credits: 3*

Choose 2 courses from: (6 credits)

- BUSN 2095 - Business Practicum *Credits: 3*
- BUSN 2195 - Business Co-op Internship *Credits: 3*
- MFG 1413 - Principles of Quality Control *Credits: 3*
- BMKT 2010 - Principles of Marketing *Credits: 3*
- WMTR 1001 - Water Treatment and Distribution *Credits: 6*
- WMTR 1002 - Special Topics in Water Treatment *Credits: 3*
- WMTR 1003 - Special Topics in Water Distribution *Credits: 3*

Total Credits: 64

Radiation Therapy Program, AS (RADT-AS-GW)

(Gateway Campus)

The mission of the Radiation Therapy Programs is to provide a learner centered Joint Review Committee on Education in Radiologic Technology (JRCERT) accredited educational program that will render qualified and compassionate radiation therapists for the community.

Learning Outcomes:

- Graduates will pass the American Registry of Radiologic Technology (ARRT) exam on the first attempt and score at or above the national average.
- Graduates will obtain employment in radiation therapy.
- The program will provide competent graduates for the community.
- Students will be satisfied with didactic course instruction.
- Students will be satisfied with clinical instruction.
- Students will demonstrate critical thinking.
- Students will demonstrate effective communication skills.
- Students will exhibit ethical and professional behaviors appropriate for a health care professional.
- Students will demonstrate specific skills necessary to be competent entry level Radiation Therapy Professionals.

The Radiation Therapy associate degree program enables graduates to work as radiation therapists. Radiation therapy uses high energy X-rays to treat diseases, primarily cancer. Using highly specialized computerized equipment, the radiation is targeted to abnormal cells while minimizing the side effects. The Radiation Therapist is a vital member of the health care team in the Radiation Oncology Department. This individual is responsible for administering, monitoring, and documenting the prescribed course of treatment from the radiation oncologist.

The Radiation Therapist is involved in assessing the physical and emotional needs of the patients and making the appropriate referrals. This unique profession combines technical and interpersonal skills and offers many career possibilities available to trained radiation therapists, including management, dosimetry, education, applications specialist, sales, and technology-related fields.

The Radiation Therapy Program at Gateway Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org> /, Email: mail@jrcert.org , Program Website: <https://gatewayct.edu/Radiation-Therapy>

Admission requirements

The Radiation Therapy programs at the CT State Community College are selective admission programs.

Admissions Procedure:

1. All students must first apply to CT State College.
2. Unless waived, all applicants must take placement tests in reading, English, and mathematics.
3. Attendance at one program specific information session.
4. Students must have a 2.7 GPA
5. Complete the following prerequisite courses
 - ENG 1010 - Composition (C or higher)
 - BIO 2111 - Anatomy & Physiology I (C or higher taken within past five years of program start date) *Note that enrollment in BIO 2111 may require completion of pre-requisite science courses*
 - BIO 2112 - Anatomy & Physiology II (C or higher taken within past five years of program start date)
 - MATH 1610 - Precalculus (C or higher taken within past five years of program start date)
6. Submit official copies of all transcripts.
7. Participate in an interview.

Students in this program are responsible for expenses including but not limited to uniforms, physical examinations and blood work, travel to clinical sites, parking, meals, CPR training, background check and toxicology screening, dosimeters, textbooks, liability insurance, Trajecsys and Castle Branch. Specific information about these costs is available on the Radiation Therapy webpage and in the Radiation Therapy Program Student Handbook. Financial aid information is available through the College Financial Aid office.

Graduation Criteria

All program students must complete the following to receive an associate degree from the program. See the student handbook for complete details.

- Complete all didactic curricula with a final grade of C or better.
- Complete all clinical curricula with a final grade of C or better.
- Complete all competency exams with a final grade of 100%.
- Maintain all hospital and program standards as outlined in the program handbook.

Graduates of the program are eligible to take the American Registry of Radiologic Technologists (ARRT) national certification examination.

Clinical Curriculum

The structure of the curriculum is such that courses are offered in sequence and progress in complexity. It offers appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements established by the ARRT.

Gateway Campus Clinical instruction will take place at the following sites:

- Yale-New Haven Hospital Smilow Cancer Hospital, New Haven, CT
- McGivney Cancer Care at Yale-New Haven Hospital Hamden Campus, Hamden, CT; Yale-New Haven Hospital
- Shoreline Medical Center Guilford, Guilford, CT
- Danbury Hospital, Danbury, CT
- Bridgeport Hospital-Norma F. Pfriem Cancer Institute, Trumbull, CT
- Lawrence and Memorial Hospital, Waterford, CT
- Greenwich Hospital, Greenwich, CT

Note: Students are responsible for their own transportation to and from class and clinical assignments.

Due to standards from The Joint Commission, students are advised that the healthcare facilities to which they are assigned for clinical rotations may require that they submit a criminal background check, required immunization records and other documentation needed to meet the standards. CT State Community College cannot be responsible for finding an alternate clinical placement for a student who fails to meet the required hospital requirements. A student who is unable to complete the required clinical experience will be unable to complete the requirements for the associate degree in Radiation Therapy but may be able to apply some or all of the credits completed to an associate degree in General Studies. Students are advised to meet with a Counselor to discuss degree completion requirements.

Radiation Therapy General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3* [pre-admission requirement]

MATH 1610 - Precalculus *Credits: 4* [pre-admission requirement]

COMM 1302 - Interpersonal Communication *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

BIO 1210 - General Biology I *Credits: 4*

PSY 1011 - General Psychology I *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Radiation Therapy Program Core (55 credits, 8 credits pre-program)

BIO 2111 - Anatomy & Physiology I *Credits: 4* [pre-admission requirement]

BIO 2112 - Anatomy & Physiology II *Credits: 4* [pre-admission requirement]

RADT 2018 - Understanding Cancer *Credits: 3*

RST 2000 - Cross Sectional Anatomy *Credits: 3* (Gateway campus)

OR RADT 1040 - CT Imaging and Sectional Anatomy *Credits: 3* (Manchester campus)

RST 1005 - Radiologic Science Physics *Credits: 3*

RADT 1001 - Principles and Practices of Radiation Therapy I *Credits: 3*

RADT 1002 - Principles and Practices of Radiation Therapy II *Credits: 3*

RADT 1195 - Clinical Practice I *Credits: 2*

RADT 1295 - Clinical Practice II *Credits: 1*
RADT 1395 - Clinical Practice III *Credits: 2*
RADT 1495 - Clinical Practice IV *Credits: 3*
RADT 2001 - Principles and Practices of Radiation Therapy III *Credits: 3*
RADT 2002 - Principles and Practices of Radiation Therapy IV *Credits: 3*
RADT 2195 - Clinical Practice V *Credits: 3*
RADT 2295 - Clinical Practice VI *Credits: 1*
RADT 2395 - Clinical Practice VII *Credits: 3*
RADT 2020 - Treatment Planning I *Credits: 3*
RADT 2021 - Treatment Planning II *Credits: 3*
RADT 2222 - Radiation Oncology I *Credits: 2*
RADT 2032 - Radiation Oncology II *Credits: 2*
RADT 2024 - Radiobiology and Protection *Credits: 3*
RADT 2025 - Radiation Therapy Physics *Credits: 3*
RADT 2040 - Operational & Quality Management in Radiation Therapy *Credits: 2*
RADT 2090 - Radiologic Science Seminar *Credits: 3*

Gateway Courses (3 credits)

RST 1000 - Introduction to Patient Care for Radiologic Sciences *Credits: 2*
RST 1000L - Introduction to Patient Care for Radiologic Sciences Lab *Credits: 1*

Total Credits: 71 (Pre-program Credits: 19)

Radiation Therapy Program, AS (RADT-AS-MA)

(Manchester Campus)

The mission of the Radiation Therapy Programs is to provide a learner centered Joint Review Committee on Education in Radiologic Technology (JRCERT) accredited educational program that will render qualified and compassionate radiation therapists for the community.

Learning Outcomes:

- Graduates will pass the American Registry of Radiologic Technology (ARRT) exam on the first attempt and score at or above the national average.
- Graduates will obtain employment in radiation therapy.
- The program will provide competent graduates for the community.
- Students will be satisfied with didactic course instruction.
- Students will be satisfied with clinical instruction.
- Students will demonstrate critical thinking.
- Students will demonstrate effective communication skills.
- Students will exhibit ethical and professional behaviors appropriate for a health care professional.
- Students will demonstrate specific skills necessary to be competent entry level Radiation Therapy Professionals.

The Radiation Therapy associate degree program enables graduates to work as radiation therapists. Radiation therapy uses high energy X-rays to treat diseases, primarily cancer. Using highly specialized computerized equipment, the radiation is targeted to abnormal cells while minimizing the side effects. The Radiation Therapist is a vital member of the health care team in the Radiation Oncology Department. This individual is responsible for administering, monitoring, and documenting the prescribed course of treatment from the radiation oncologist. The Radiation Therapist is involved in assessing the physical and emotional needs of the patients and making the appropriate referrals. This unique profession combines technical and interpersonal skills and offers many career possibilities available to trained radiation therapists, including management, dosimetry, education, applications specialist, sales, and technology-related fields.

The Radiation Therapy Program at Manchester Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org/>, Email: mail@jrcert.org, Program Website: <https://www.manchestercc.edu/offices/academic-affairs/divisions/science-technology-engineering-mathematics/health-careers/radiation-therapy/>

Admission requirements

The Radiation Therapy programs at the CT State Community College are selective admission programs.

Admissions Procedure:

1. All students must first apply to CT State College.
2. Unless waived, all applicants must take placement tests in reading, English, and mathematics.
3. Attendance at one program specific information session.
4. Students must have a 2.7 GPA
5. Complete the following prerequisite courses
 - ENG 1010 - Composition (C or higher)
 - BIO 2111 - Anatomy & Physiology I (C or higher taken within past five years of program start date)
Note that enrollment in BIO 2111 may require completion of pre-requisite science courses
 - BIO 2112 - Anatomy & Physiology II (C or higher taken within past five years of program start date)
 - MATH 1610 - Precalculus (C or higher taken within past five years of program start date)
6. Submit official copies of all transcripts.
7. Participate in an interview.

Students in this program are responsible for expenses including but not limited to uniforms, physical examinations and blood work, travel to clinical sites, parking, meals, CPR training, background check and toxicology screening, dosimeters, textbooks, liability insurance, Trajecsys and Castle Branch. Specific information about these costs is available on the Radiation Therapy webpage and in the Radiation Therapy Program Student Handbook. Financial aid information is available through the College Financial Aid office.

Graduation Criteria

All program students must complete the following to receive an associate degree from the program. See the student handbook for complete details.

- Complete all didactic curricula with a final grade of C or better.
- Complete all clinical curricula with a final grade of C or better.
- Complete all competency exams with a final grade of 100%.
- Maintain all hospital and program standards as outlined in the program handbook.

Graduates of the program are eligible to take the American Registry of Radiologic Technologists (ARRT) national certification examination.

Clinical Curriculum

The structure of the curriculum is such that courses are offered in sequence and progress in complexity. It offers appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements established by the ARRT.

Manchester Campus Clinical Instruction will take place at the following sites:

- Hartford Hospital Radiation Oncology Department, Hartford, CT
- Mid-State Medical Center Radiation Oncology Department, Meriden, CT
- UConn Health Center - John Dempsey Hospital, Farmington, CT
- Middlesex Memorial Hospital, Middlesex, CT.
- DeQuattro Community Cancer Care, Manchester, CT
- St. Francis Care, Hartford, CT
- Hospital of Central Connecticut
- Enfield Cancer Center, Enfield, CT
- Backus Hospital, Norwich, CT
- Lawrence & Memorial Cancer Center, Waterford, CT
- Smilow Cancer Hospital Hamden, Hamden, CT
- Smilow Cancer Hospital Trumbull, Trumbull, CT
- St. Vincent's Medical Center, Bridgeport, CT
- Yale New Haven Hospital, New Haven, CT

Note: Students are responsible for their own transportation to and from class and clinical assignments.

Due to standards from The Joint Commission, students are advised that the healthcare facilities to which they are assigned for clinical rotations may require that they submit a criminal background check, required immunization records and other documentation needed to meet the standards. CT State Community College cannot be responsible for finding an alternate clinical placement for a student who fails to meet the required hospital requirements. A student who is unable to complete the required clinical experience will be unable to complete the requirements for the associate degree in Radiation Therapy but may be able to apply some or all of the credits completed to an associate degree in General Studies. Students are advised to meet with a Counselor to discuss degree completion requirements.

Radiation Therapy General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3* [pre-admission requirement]

MATH 1610 - Precalculus *Credits: 4* [pre-admission requirement]

COMM 1302 - Interpersonal Communication *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

BIO 1210 - General Biology I *Credits: 4*

PSY 1011 - General Psychology I *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Radiation Therapy Program Core (55 credits, 8 credits pre-program)

BIO 2111 - Anatomy & Physiology I *Credits: 4* [pre-admission requirement]

BIO 2112 - Anatomy & Physiology II *Credits: 4* [pre-admission requirement]

RADT 2018 - Understanding Cancer *Credits: 3*

RST 2000 - Cross Sectional Anatomy *Credits: 3* (Gateway campus)

OR RADT 1040 - CT Imaging and Sectional Anatomy *Credits: 3* (Manchester campus)

RST 1005 - Radiologic Science Physics *Credits: 3*

RADT 1001 - Principles and Practices of Radiation Therapy I *Credits: 3*

RADT 1002 - Principles and Practices of Radiation Therapy II *Credits: 3*

RADT 1195 - Clinical Practice I *Credits: 2*

RADT 1295 - Clinical Practice II *Credits: 1*

RADT 1395 - Clinical Practice III *Credits: 2*

RADT 1495 - Clinical Practice IV *Credits: 3*

RADT 2001 - Principles and Practices of Radiation Therapy III *Credits: 3*

RADT 2002 - Principles and Practices of Radiation Therapy IV *Credits: 3*

RADT 2195 - Clinical Practice V *Credits: 3*

RADT 2295 - Clinical Practice VI *Credits: 1*

RADT 2395 - Clinical Practice VII *Credits: 3*

RADT 2020 - Treatment Planning I *Credits: 3*

RADT 2021 - Treatment Planning II *Credits: 3*

RADT 2222 - Radiation Oncology I *Credits: 2*

RADT 2032 - Radiation Oncology II *Credits: 2*

RADT 2024 - Radiobiology and Protection *Credits: 3*

RADT 2025 - Radiation Therapy Physics *Credits: 3*

RADT 2040 - Operational & Quality Management in Radiation Therapy *Credits: 2*

RADT 2090 - Radiologic Science Seminar *Credits: 3*

Manchester Course (3 credits)

RST 1021 - Radiologic Science Patient Care *Credits: 3*

Total Credits: 71 (Pre-program Credits: 19)

Radiography Program - Gateway, AS (RDGR-AS-GW)

(Gateway Campus)

The mission of the Connecticut State Community College Radiography program is to provide a comprehensive radiography program that will graduate competent, entry-level radiologic technologists for the healthcare community.

Radiography or "x-ray" uses very small doses of ionizing radiation to produce images of internal structures of the body for the diagnosis of disease or injury. Radiographers are technologists who operate imaging equipment to produce quality images of the body for a Radiologist or other ordering provider to interpret. The associate degree program in Radiography prepares students for employment as entry level radiographers in hospitals, outpatient facilities, medical offices, community health agencies, or nondestructive testing industries where radiation is used for quality control. The structure of the curriculum is sequential and includes appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements. Each campus will have some degree of differentiation in course offerings and sequencing based on clinical capacity, student enrollment and Joint Review Committee on Education in Radiologic Technology (JRCERT) approval.

Students are assigned to clinical practice at various medical facilities throughout the state of Connecticut. Upon completion of the program, graduates are eligible to take the national certifying examination in radiography as administered by the American Registry of Radiologic Technologists (ARRT) in Radiography.

In addition to the College's general education core curriculum, the Connecticut State Community College Radiography program has a set of common program courses. Additionally, each campus may have its own set of differentiated options that must be taken to be eligible for graduation. Differentiated options are courses that meet the needs of the individual campus for a variety of reasons including but not limited to clinical site requirements, clinical site capacity, campus course offerings, and clinical competency requirements. Because each campus is required to maintain an individual accreditation from the Joint Review Committee on Education in Radiologic Technology (JRCERT), they may require differentiated options, and may have differentiated course sequencing, students cannot transfer from one campus program to another campus.

The Radiography program is a competency-based program. The credits associated with each clinical practice course are not a direct reflection of contact hours. One credit of clinical practice is equal to 120 hours of clinical practice.

Students who wish to transfer to an approved four-year program in radiography to achieve advanced level certification in computed tomography (CT), magnetic resonance imaging (MRI) or other disciplines, or programs for health care management should consult their campus' Radiography Program Coordinator regarding established transfer articulation agreements.

Admissions Procedure:

The Radiography programs at the Connecticut State Community College are selective admission programs. All students must first apply to the Connecticut State Community College. Unless waived, all applicants must take placement tests in reading, English, and mathematics. Students must attend a campus specific Radiography program information session within one year prior to applying to the Radiography program. Applications are available annually, starting October 1st. Students must have a 2.7 GPA (Grade Point Average), and complete the following courses prior to the February 15th application deadline:

- ENG 1010 - Composition (C or higher)
- BIO 2111 - Anatomy & Physiology I (C+ or higher taken within past five years of program start date)
- BIO 2112 - Anatomy & Physiology II (C+ or higher taken within past five years of program start date) *Students may apply to the Program while in the process of completing BIO 2112 during the spring semester of application year.*

Applicants will be required to complete the TEAS test prior to the February 15th application deadline. The TEAS test must be current in the year of application, taken between November 1 through January 31. Official results must be provided with the program application for the specified year of application.

Students in the radiography program may be responsible for expenses including but not limited to uniforms, physical examinations and blood work, travel to clinical sites, parking, meals, CPR training, background check and toxicology screening, textbooks, liability insurance, lead markers, and online clinical management and immunization services such as Trajecsyst and Castle Branch. Specific information about these costs is available on the campus specific radiography webpage and on the campus specific Radiography Program Student Handbook. Financial aid information is available through the Connecticut State Community College Financial Aid office.

Please note: To begin the clinical component of the Program, all accepted students will be required to:

1. Submit an updated health assessment with no restrictions
2. Submit documentation of updated vaccination requirements including blood work and titers as necessary
3. Pass a background check
4. Pass a toxicology screening

Positive toxicology screens can prevent students from participating in a clinical assignment per facility contractual agreements. The following guides the response to a positive toxicology screening for any student:

1. All specimens identified as non-negative/positive on the initial test shall be confirmed, reviewed, and interpreted by the vendor.
2. The student is required to provide documentation by a healthcare provider in the event there is a medical explanation for a positive result (i.e., the result of a prescribed medication). In accordance with federal law, a positive toxicology screen for legally prescribed marijuana can prohibit a student from being placed in a clinical setting that accepts federal funding.
3. If a student challenges a result, only the original sample can be retested.

Learning Outcomes: (Based on JRCERT accreditation standards)

Upon completion of the Program:

- **Goal 1: Students will demonstrate effective communication skills**

Student Learning Outcomes:

1. Students will use effective oral communication skills with a wide variety of audiences in the clinical setting
2. Students will practice effective written communication skills

- **Goal 2: Students will utilize critical thinking skills**

Student Learning Outcomes:

1. Students will assess images for diagnostic quality
2. Students will assess images and make appropriate adjustment(s) as needed

- **Goal 3: Students will be clinically competent when performing entry level imaging procedures**

Student Learning Outcomes:

1. Students will accurately position patients for radiographic procedures based on patient assessment
2. Students will select appropriate technical factors to obtain diagnostic quality images based on patient assessment
3. Students will utilize radiation safety for self and others

- **Goal 4: Students will demonstrate professional behavior**

Student Learning Outcomes:

1. Students will demonstrate professionalism in the program
2. Students will participate in professional activities with state and national organizations

The Radiography Program at Gateway Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org/>, Email: mail@jcert.org, Program Website: <https://gatewayct.edu/Radiography>

Students will be charged the Supplemental Course (program) Fee Level 1 every fall and spring semesters while in the program.

Graduation Requirements:

- Complete the CT State general education core curriculum
- Complete the Radiography program curriculum with a grade of C or higher in each program specific course and a C+ or higher in Anatomy & Physiology I and II course and College Algebra course.
- Complete the American Registry of Radiologic Technologists (ARRT) Clinical Competency Requirements

- Complete American Registry of Radiologic Technology General Patient Care Competency Requirements.
- Be Cardiopulmonary Resuscitation (CPR) or Basic Life Support (BLS) certified

Clinical Curriculum:

The structure of the clinical curriculum is designed to be sequential and progress in complexity. Each campus program will have their own clinical sites that are approved and recognized by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students will be assigned to the clinical education sites approved for the campus program they are accepted into. The Gateway Campus is currently affiliated with the following sites (clinical sites may be added or removed as necessary):

- Bridgeport Hospital
- Bridgeport Hospital Milford Campus
- Bridgeport Hospital Park Avenue Medical Center Griffin Hospital
- Griffin Imaging & Diagnostics Center at Ivy Brook
- Yale New Haven Hospital Milford Sports Medicine
- Yale New Haven Hospital Pediatric Specialty Center
- Yale New Haven Hospital Spine Center at Long Wharf
- Yale New Haven Hospital, St. Raphael's Campus
- Yale New Haven Hospital Sports Medicine at Guilford
- Yale New Haven Hospital, York Street Campus
- West Haven VA Medical Center

Radiography General Education Core (22-23 credits)

ENG 1010 - Composition Credits: 3 (pre-admission requirement)

MATH 1600 - Pathway to Calculus: College Algebra Credits: 3

Elective ARHX - Arts & Humanities Course Credits: 3-4

BIO 2111 - Anatomy & Physiology I Credits: 4 (pre-admission requirement)

PSY 1011 - General Psychology I Credits: 3

COMM 1301 - Public Speaking Credits: 3

CCS 1001 - College & Career Success *Credits: 3*

Radiography Program Core (44 credits)

RAD 1002 - Radiographic Procedures I *Credits: 3*

RAD 1002L - Radiographic Procedures I Lab *Credits: 1*

RAD 1010 - Radiographic Procedures II *Credits: 3*

RAD 1010L - Radiographic Procedures II Lab *Credits: 1*

RAD 1011 - Imaging/Exposure I *Credits: 3*

RAD 1012 - Imaging/Exposure II *Credits: 3*

RAD 1094 - Radiography Clinical I *Credits: 2*

RAD 1194 - Radiography Clinical II *Credits: 2*

RAD 1294 - Radiography Clinical III *Credits: 2*

RAD 2001 - Radiographic Procedures III *Credits: 3*

RAD 2001L - Radiographic Procedures III Lab *Credits: 1*

RAD 2002 - Imaging/Exposure III *Credits: 3*

RAD 2002L - Imaging/Exposure III Lab *Credits: 1*

RAD 2090 - Senior Seminar *Credits: 3*

RAD 2015 - Radiographic Pathology *Credits: 3*

RAD 2022 - Radiobiology & Radiation Safety for the Radiographer *Credits: 3*

RAD 2094 - Radiography Clinical IV *Credits: 3*

BIO 2112 - Anatomy & Physiology II *Credits: 4 (pre-admission requirement)*

Gateway Courses (11 credits)

RST 1000 - Introduction to Patient Care for Radiologic Sciences *Credits: 2*
RST 1000L - Introduction to Patient Care for Radiologic Sciences Lab *Credits: 1*
RAD 1001 - Introduction to Radiologic Sciences and Patient Care *Credits: 3*
RAD 1011L - Imaging/Exposure I Lab *Credits: 1*
RAD 1094A - Radiography Winter Clinical I *Credits: 0.5*
RAD 2094A - Radiography Winter Clinical II *Credits: 0.5*
RAD 2194 - Radiography Clinical V *Credits: 3*

Total Credits: 77-78**Clinical Curriculum**

The structure of the clinical curriculum is designed to be sequential and progress in complexity. Each campus program will have their own clinical sites that are approved and recognized by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students will be assigned to the clinical education sites approved for the campus program they are accepted into. The following campuses are currently affiliated with the following sites (clinical sites may be added or removed as necessary):

Gateway Campus:

Bridgeport Hospital
Bridgeport Hospital Milford Campus
Bridgeport Hospital Park Avenue Medical Center Griffin Hospital
Griffin Imaging & Diagnostics Center at Ivy Brook
Yale New Haven Hospital Milford Sports Medicine
Yale New Haven Hospital Pediatric Specialty Center
Yale New Haven Hospital Spine Center at Long Wharf
Yale New Haven Hospital, St. Raphael's Campus
Yale New Haven Hospital Sports Medicine at Guilford
Yale New Haven Hospital, York Street Campus
West Haven VA Medical Center

Radiography Program - Manchester, AS (RDGR-AS-MA)

The Radiography Program at Manchester Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org/>, Email: mail@jrcert.org, Program Website: <https://www.manchestercc.edu/offices/academic-affairs/divisions/science-technology-engineering-mathematics/health-careers/radiography/>

(Manchester Campus)

The mission of the Connecticut State Community College Radiography program is to provide a comprehensive radiography program that will graduate competent, entry-level radiologic technologists for the healthcare community.

Radiography or "x-ray" uses very small doses of ionizing radiation to produce images of internal structures of the body for the diagnosis of disease or injury. Radiographers are technologists who operate imaging equipment to produce quality images of the body for a Radiologist or other ordering provider to interpret. The associate degree program in Radiography prepares students for employment as entry level radiographers in hospitals, outpatient facilities, medical offices, community health agencies, or nondestructive testing industries where radiation is used for quality control. The structure of the curriculum is sequential and includes appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements. Each campus will have some degree of differentiation in course offerings and sequencing based on clinical capacity, student enrollment and Joint Review Committee on Education in Radiologic Technology (JRCERT) approval.

Students are assigned to clinical practice at various medical facilities throughout the state of Connecticut. Upon completion of the program, graduates are eligible to take the national certifying examination in radiography as administered by the American Registry of Radiologic Technologists (ARRT) in Radiography.

In addition to the College's general education core curriculum, the Connecticut State Community College Radiography program has a set of common program courses. Additionally, each campus may have its own set of differentiated options that must be taken to be eligible for graduation. Differentiated options are courses that meet the needs of the individual campus for a variety of reasons including but not limited to clinical site requirements, clinical site capacity, campus course offerings, and clinical competency requirements. Because each campus is required to maintain an individual accreditation from the Joint Review Committee on Education in Radiologic Technology (JRCERT), they may require differentiated options, and may have differentiated course sequencing, students cannot transfer from one campus program to another campus.

The Radiography program is a competency-based program. The credits associated with each clinical practice course are not a direct reflection of contact hours. One credit of clinical practice is equal to 120 hours of clinical practice.

Students who wish to transfer to an approved four-year program in radiography to achieve advanced level certification in computed tomography (CT), magnetic resonance imaging (MRI) or other disciplines, or programs for health care management should consult their campus' Radiography Program Coordinator regarding established transfer articulation agreements.

Admissions Procedure:

The Radiography programs at the Connecticut State Community College are selective admission programs. All students must first apply to the Connecticut State Community College. Unless waived, all applicants must take placement tests in reading, English, and mathematics. Students must attend a campus specific Radiography program information session within one year prior to applying to the Radiography program. Applications are available annually, starting October 1st. Students must have a 2.7 GPA (Grade Point Average), and complete the following courses prior to the February 15th application deadline:

- ENG 1010 - Composition (C or higher)
- BIO 2111 - Anatomy & Physiology I (C+ or higher taken within past five years of program start date)
- BIO 2112 - Anatomy & Physiology II (C+ or higher taken within past five years of program start date) *Students may apply to the Program while in the process of completing BIO 2112 during the spring semester of application year.*

Applicants will be required to complete the TEAS test prior to the February 15th application deadline. The TEAS test must be current in the year of application, taken between November 1 through January 31. Official results must be provided with the program application for the specified year of application.

Students in the radiography program may be responsible for expenses including but not limited to uniforms, physical examinations and blood work, travel to clinical sites, parking, meals, CPR training, background check and toxicology screening, textbooks, liability insurance, lead markers, and online clinical management and immunization services such as Trajecsyst and Castle Branch. Specific

information about these costs is available on the campus specific radiography webpage and on the campus specific Radiography Program Student Handbook. Financial aid information is available through the Connecticut State Community College Financial Aid office.

Please note: To begin the clinical component of the Program, all accepted students will be required to:

1. Submit an updated health assessment with no restrictions
2. Submit documentation of updated vaccination requirements including blood work and titers as necessary
3. Pass a background check
4. Pass a toxicology screening

Positive toxicology screens can prevent students from participating in a clinical assignment per facility contractual agreements. The following guides the response to a positive toxicology screening for any student:

1. All specimens identified as non-negative/positive on the initial test shall be confirmed, reviewed, and interpreted by the vendor.
2. The student is required to provide documentation by a healthcare provider in the event there is
3. a medical explanation for a positive result (i.e., the result of a prescribed medication). In accordance with federal law, a positive toxicology screen for legally prescribed marijuana can prohibit a student from being placed in a clinical setting that accepts federal funding.
4. If a student challenges a result, only the original sample can be retested.

Learning Outcomes: (Based on JRCERT accreditation standards)

Goal 1: Students will demonstrate effective communication skills

Student Learning Outcomes:

- 1: Students will use effective oral communication skills with a wide variety of audiences in the clinical setting
- 2: Students will practice effective written communication skills

Goal 2: Students will utilize critical thinking skills

Student Learning Outcomes:

- 1: Students will assess images for diagnostic quality
- 2: Students will assess images and make appropriate adjustment(s) as needed

Goal 3: Students will be clinically competent when performing entry level imaging procedures

Student Learning Outcomes:

- 1: Students will accurately position patients for radiographic procedures based on patient assessment
- 2: Students will select appropriate technical factors to obtain diagnostic quality images based on patient assessment
- 3: Students will utilize radiation safety for self and others

Goal 4: Students will demonstrate professional behavior

Student Learning Outcomes:

- 1: Students will demonstrate professionalism in the program
- 2: Students will participate in professional activities with state and national organizations

The Radiation Therapy Program at Manchester Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org/>, Email: mail@jrcert.org, Program Website: <https://www.manchestercc.edu/offices/academic-affairs/divisions/science-technology-engineering-mathematics/health-careers/radiation-therapy/>

Students will be charged the Supplemental Course (program) Fee Level 1 every fall and spring semesters while in the program.

Graduation Requirements:

- Complete the CT State general education core curriculum

- Complete the Radiography program curriculum with a grade of C or higher in each program specific course and a C+ or higher in Anatomy & Physiology I and II course and College Algebra course.
- Complete the American Registry of Radiologic Technologists (ARRT) Clinical Competency Requirements
- Complete American Registry of Radiologic Technology General Patient Care Competency Requirements.
- Be Cardiopulmonary Resuscitation (CPR) or Basic Life Support (BLS) certified

Clinical Curriculum:

The structure of the clinical curriculum is designed to be sequential and progress in complexity. Each campus program will have their own clinical sites that are approved and recognized by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students will be assigned to the clinical education sites approved for the campus program they are accepted into. The Manchester campus is currently affiliated with the following sites (clinical sites may be added or removed as necessary):

- Connecticut Children's: Glastonbury facility
- Connecticut Children's: Hartford facility
- Hartford Hospital
- Hospital of Central Connecticut, New Britain
- Jefferson Radiology, Avon
- Jefferson Radiology, Hartford
- Jefferson Radiology, West Hartford
- Midstate Medical Center, Meriden
- Orthopedic Surgical Partners, Manchester
- Prospect Manchester Hospital, Inc D/B/A Manchester Memorial Hospital
- UConn Health Center/John Dempsey Hospital, Farmington
- Vernon Imaging

Radiography General Education Core (22-23 credits)

ENG 1010 - Composition *Credits: 3 (pre-admission requirement)*

MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 2111 - Anatomy & Physiology I *Credits: 4 (pre-admission requirement)*

PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Radiography Program Core (44 credits)

RAD 1002 - Radiographic Procedures I *Credits: 3*

RAD 1002L - Radiographic Procedures I Lab *Credits: 1*

RAD 1010 - Radiographic Procedures II *Credits: 3*

RAD 1010L - Radiographic Procedures II Lab *Credits: 1*

RAD 1011 - Imaging/Exposure I *Credits: 3*

RAD 1012 - Imaging/Exposure II *Credits: 3*

RAD 1094 - Radiography Clinical I *Credits: 2*

RAD 1194 - Radiography Clinical II *Credits: 2*

RAD 1294 - Radiography Clinical III *Credits: 2*

RAD 2001 - Radiographic Procedures III *Credits: 3*

RAD 2001L - Radiographic Procedures III Lab *Credits: 1*

RAD 2002 - Imaging/Exposure III *Credits: 3*

RAD 2002L - Imaging/Exposure III Lab *Credits: 1*

RAD 2090 - Senior Seminar *Credits: 3*

RAD 2015 - Radiographic Pathology *Credits: 3*

RAD 2022 - Radiobiology & Radiation Safety for the Radiographer *Credits: 3*

RAD 2094 - Radiography Clinical IV *Credits: 3*

BIO 2112 - Anatomy & Physiology II *Credits: 4 (pre-admission requirement)*

Manchester Courses (10 credits)

RST 1021 - Radiologic Science Patient Care *Credits: 3*
RST 1005 - Radiologic Science Physics *Credits: 3*
RAD 1094A - Radiography Winter Clinical I *Credits: 0.5*
RAD 2094A - Radiography Winter Clinical II *Credits: 0.5*
RAD 2194 - Radiography Clinical V *Credits: 3*

Total Credits: 76-77

Radiography Program - Middlesex, AS (RDGR-AS-MX)

(Middlesex Campus)

The mission of the Connecticut State Community College Radiography program is to provide a comprehensive radiography program that will graduate competent, entry-level radiologic technologists for the healthcare community.

Radiography or "x-ray" uses very small doses of ionizing radiation to produce images of internal structures of the body for the diagnosis of disease or injury. Radiographers are technologists who operate imaging equipment to produce quality images of the body for a Radiologist or other ordering provider to interpret. The associate degree program in Radiography prepares students for employment as entry level radiographers in hospitals, outpatient facilities, medical offices, community health agencies, or nondestructive testing industries where radiation is used for quality control. The structure of the curriculum is sequential and includes appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements. Each campus will have some degree of differentiation in course offerings and sequencing based on clinical capacity, student enrollment and Joint Review Committee on Education in Radiologic Technology (JRCERT) approval.

Students are assigned to clinical practice at various medical facilities throughout the state of Connecticut. Upon completion of the program, graduates are eligible to take the national certifying examination in radiography as administered by the American Registry of Radiologic Technologists (ARRT) in Radiography.

In addition to the College's general education core curriculum, the Connecticut State Community College Radiography program has a set of common program courses. Additionally, each campus may have its own set of differentiated options that must be taken to be eligible for graduation. Differentiated options are courses that meet the needs of the individual campus for a variety of reasons including but not limited to clinical site requirements, clinical site capacity, campus course offerings, and clinical competency requirements. Because each campus is required to maintain an individual accreditation from the Joint Review Committee on Education in Radiologic Technology (JRCERT), they may require differentiated options, and may have differentiated course sequencing, students cannot transfer from one campus program to another campus.

The Radiography program is a competency-based program. The credits associated with each clinical practice course are not a direct reflection of contact hours. One credit of clinical practice is equal to 120 hours of clinical practice.

Students who wish to transfer to an approved four-year program in radiography to achieve advanced level certification in computed tomography (CT), magnetic resonance imaging (MRI) or other disciplines, or programs for health care management should consult their campus' Radiography Program Coordinator regarding established transfer articulation agreements.

Admissions Procedure:

The Radiography programs at the Connecticut State Community College are selective admission programs. All students must first apply to the Connecticut State Community College. Unless waived, all applicants must take placement tests in reading, English, and mathematics. Students must attend a campus specific Radiography program information session within one year prior to applying to the Radiography program. Applications are available annually, starting October 1st. Students must have a 2.7 GPA (Grade Point Average), and complete the following courses prior to the February 15th application deadline:

- ENG 1010 - Composition (C or higher)
- BIO 2111 - Anatomy & Physiology I (C+ or higher taken within past five years of program start date)
- BIO 2112 - Anatomy & Physiology II (C+ or higher taken within past five years of program start date) *Students may apply to the Program while in the process of completing BIO 2112 during the spring semester of application year.*

Applicants will be required to complete the TEAS test prior to the February 15th application deadline. The TEAS test must be current in the year of application, taken between November 1 through January 31. Official results must be provided with the program application for the specified year of application.

Students in the radiography program may be responsible for expenses including but not limited to uniforms, physical examinations and blood work, travel to clinical sites, parking, meals, CPR training, background check and toxicology screening, textbooks, liability insurance, lead markers, and online clinical management and immunization services such as Trajecsyst and Castle Branch. Specific information about these costs is available on the campus specific radiography webpage and on the campus specific Radiography Program Student Handbook. Financial aid information is available through the Connecticut State Community College Financial Aid office.

Please note:

To begin the clinical component of the Program, all accepted students will be required to:

1. Submit an updated health assessment with no restrictions
2. Submit documentation of updated vaccination requirements including blood work and titers as necessary
3. Pass a background check
4. Pass a toxicology screening

Positive toxicology screens can prevent students from participating in a clinical assignment per facility contractual agreements. The following guides the response to a positive toxicology screening for any student:

1. All specimens identified as non-negative/positive on the initial test shall be confirmed, reviewed, and interpreted by the vendor.
2. The student is required to provide documentation by a healthcare provider in the event there is
3. a medical explanation for a positive result (i.e., the result of a prescribed medication). In accordance with federal law, a positive toxicology screen for legally prescribed marijuana can prohibit a student from being placed in a clinical setting that accepts federal funding.
4. If a student challenges a result, only the original sample can be retested.

Learning Outcomes: (Based on JRCERT accreditation standards)

Upon completion of the Program:

Goal 1: Students will demonstrate effective communication skills

Student Learning Outcomes:

1. Students will use effective oral communication skills with a wide variety of audiences in the clinical setting
2. Students will practice effective written communication skills

Goal 2: Students will utilize critical thinking skills

Student Learning Outcomes:

1. Students will assess images for diagnostic quality
2. Students will assess images and make appropriate adjustment(s) as needed

Goal 3: Students will be clinically competent when performing entry level imaging procedures

Student Learning Outcomes:

1. Students will accurately position patients for radiographic procedures based on patient assessment
2. Students will select appropriate technical factors to obtain diagnostic quality images based on patient assessment
3. Students will utilize radiation safety for self and others

Goal 4: Students will demonstrate professional behavior

Student Learning Outcomes:

1. Students will demonstrate professionalism in the program
2. Students will participate in professional activities with state and national organizations

The Radiography Program at Middlesex Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org/>, Email: mail@jrcert.org, Program Website: Radiography at the Middlesex Campus. Students will be charged the Supplemental Course (program) Fee Level 1 every fall and spring semesters while in the program.

Graduation Requirements:

- Complete the CT State general education core curriculum

- Complete the Radiography program curriculum with a grade of C or higher in each program specific course and a C+ or higher in Anatomy & Physiology I and II course and College Algebra course.
- Complete the American Registry of Radiologic Technologists (ARRT) Clinical Competency Requirements
- Complete American Registry of Radiologic Technology General Patient Care Competency Requirements.
- Be Cardiopulmonary Resuscitation (CPR) or Basic Life Support (BLS) certified

Clinical Curriculum:

The structure of the clinical curriculum is designed to be sequential and progress in complexity. Each campus program will have their own clinical sites that are approved and recognized by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students will be assigned to the clinical education sites approved for the campus program they are accepted into. The Middlesex campus is currently affiliated with the following sites (clinical sites may be added or removed as necessary):

- Danbury Hospital - Danbury Day Kimball Hospital - Putnam
- Hartford Health - Backus Outpatient Center - Norwich
- Hartford Health - William Backus Hospital - Norwich
- Hartford Health - Windham Hospital - Willimantic
- Middlesex Health - Marlborough Medical Center - Marlborough
- Middlesex Health - Middlesex Hospital - Middletown
- Middlesex Health - Outpatient Medical Center - Middletown
- Middlesex Health - Shoreline Medical Center - Westbrook
- Middlesex Health - Urgent Care - Middletown
- Middlesex Health - Urgent Care - Old Saybrook
- Radiologists Associates of Middletown - Guilford
- Yale New Haven - Crossroads Medical Center - Waterford
- Yale New Haven - Lawrence Memorial Hospital - New London
- Yale New Haven - Pequot Health Center - Groton

Radiography General Education Core (22-23 credits)

ENG 1010 - Composition *Credits: 3 (pre-admission requirement)*
 MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 BIO 2111 - Anatomy & Physiology I *Credits: 4 (pre-admission requirement)*
 PSY 1011 - General Psychology I *Credits: 3*
 COMM 1301 - Public Speaking *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Radiography Program Core (44 credits)

RAD 1002 - Radiographic Procedures I *Credits: 3*
 RAD 1002L - Radiographic Procedures I Lab *Credits: 1*
 RAD 1010 - Radiographic Procedures II *Credits: 3*
 RAD 1010L - Radiographic Procedures II Lab *Credits: 1*
 RAD 1011 - Imaging/Exposure I *Credits: 3*
 RAD 1012 - Imaging/Exposure II *Credits: 3*
 RAD 1094 - Radiography Clinical I *Credits: 2*
 RAD 1194 - Radiography Clinical II *Credits: 2*
 RAD 1294 - Radiography Clinical III *Credits: 2*
 RAD 2001 - Radiographic Procedures III *Credits: 3*
 RAD 2001L - Radiographic Procedures III Lab *Credits: 1*
 RAD 2002 - Imaging/Exposure III *Credits: 3*
 RAD 2002L - Imaging/Exposure III Lab *Credits: 1*
 RAD 2090 - Senior Seminar *Credits: 3*
 RAD 2015 - Radiographic Pathology *Credits: 3*
 RAD 2022 - Radiobiology & Radiation Safety for the Radiographer *Credits: 3*
 RAD 2094 - Radiography Clinical IV *Credits: 3*
 BIO 2112 - Anatomy & Physiology II *Credits: 4 (pre-admission requirement)*

Middlesex Courses (9 credits)RAD 1001 - Introduction to Radiologic Sciences and Patient Care *Credits: 3*RAD 1013 - Advanced Patient Care *Credits: 2*RAD 2095 - Radiographic Clinical Internship *Credits: 4***Total Credits: 75-76****Clinical Curriculum**

The structure of the clinical curriculum is designed to be sequential and progress in complexity. Each campus program will have their own clinical sites that are approved and recognized by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students will be assigned to the clinical education sites approved for the campus program they are accepted into. The following campuses are currently affiliated with the following sites (clinical sites may be added or removed as necessary):

Middlesex Campus:

Danbury Hospital - Danbury Day Kimball Hospital - Putnam

Hartford Health - Backus Outpatient Center - Norwich

Hartford Health - William Backus Hospital - NorwichHartford Health - Windham Hospital - Willimantic

Middlesex Health - Marlborough Medical Center - MarlboroughMiddlesex Health - Middlesex Hospital - Middletown

Middlesex Health - Outpatient Medical Center - Middletown

Middlesex Health - Shoreline Medical Center - Westbrook

Middlesex Health - Urgent Care - Middletown

Middlesex Health - Urgent Care - Old SaybrookRadiologists Associates of Middletown - Guilford

Yale New Haven - Crossroads Medical Center - Waterford

Yale New Haven - Lawrence Memorial Hospital - New London

Yale New Haven - Pequot Health Center - Groton

Radiography Program - Naugatuck & Capital, AS (RDGR-AS-NC)

Naugatuck Valley, Capital

The mission of the Connecticut State Community College Radiography program is to provide a comprehensive radiography program that will graduate competent, entry-level radiologic technologists for the healthcare community.

Radiography or "x-ray" uses very small doses of ionizing radiation to produce images of internal structures of the body for the diagnosis of disease or injury. Radiographers are technologists who operate imaging equipment to produce quality images of the body for a Radiologist or other ordering provider to interpret. The associate degree program in Radiography prepares students for employment as entry level radiographers in hospitals, outpatient facilities, medical offices, community health agencies, or nondestructive testing industries where radiation is used for quality control. The structure of the curriculum is sequential and includes appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements. Each campus will have some degree of differentiation in course offerings and sequencing based on clinical capacity, student enrollment and Joint Review Committee on Education in Radiologic Technology (JRCERT) approval.

Students are assigned to clinical practice at various medical facilities throughout the state of Connecticut. Upon completion of the program, graduates are eligible to take the national certifying examination in radiography as administered by the American Registry of Radiologic Technologists (ARRT) in Radiography.

In addition to the College's general education core curriculum, the Connecticut State Community College Radiography program has a set of common program courses. Additionally, each campus may have its own set of differentiated options that must be taken to be eligible for graduation. Differentiated options are courses that meet the needs of the individual campus for a variety of reasons including but not limited to clinical site requirements, clinical site capacity, campus course offerings, and clinical competency requirements. Because each campus is required to maintain an individual accreditation from the Joint Review Committee on Education in Radiologic Technology (JRCERT), they may require differentiated options, and may have differentiated course sequencing, students cannot transfer from one campus program to another campus.

The Radiography program is a competency-based program. The credits associated with each clinical practice course are not a direct reflection of contact hours. One credit of clinical practice is equal to 120 hours of clinical practice.

Students who wish to transfer to an approved four-year program in radiography to achieve advanced level certification in computed tomography (CT), magnetic resonance imaging (MRI) or other disciplines, or programs for health care management should consult their campus' Radiography Program Coordinator regarding established transfer articulation agreements.

Admissions Procedure:

The Radiography programs at the Connecticut State Community College are selective admission programs. All students must first apply to the Connecticut State Community College. Unless waived, all applicants must take placement tests in reading, English, and mathematics. Students must attend a campus specific Radiography program information session within one year prior to applying to the Radiography program. Applications are available annually, starting October 1st. Students must have a 2.7 GPA (Grade Point Average), and complete the following courses prior to the February 15th application deadline:

- ENG 1010 - Composition (C or higher)
- BIO 2111 - Anatomy & Physiology I (C+ or higher taken within past five years of program start date)
- BIO 2112 - Anatomy & Physiology II (C+ or higher taken within past five years of program start date) *Students may apply to the Program while in the process of completing BIO 2112 during the spring semester of application year.*

Applicants will be required to complete the TEAS test prior to the February 15th application deadline. The TEAS test must be current in the year of application, taken between November 1 through January 31. Official results must be provided with the program application for the specified year of application.

Students in the radiography program may be responsible for expenses including but not limited to uniforms, physical examinations and blood work, travel to clinical sites, parking, meals, CPR training, background check and toxicology screening, textbooks, liability insurance, lead markers, and online clinical management and immunization services such as Trajecsyst and Castle Branch. Specific information about these costs is available on the campus specific radiography webpage and on the campus specific Radiography Program Student Handbook. Financial aid information is available through the Connecticut State Community College Financial Aid office.

Please note: To begin the clinical component of the Program, all accepted students will be required to:

1. Submit an updated health assessment with no restrictions
2. Submit documentation of updated vaccination requirements including blood work and titers as necessary
3. Pass a background check
4. Pass a toxicology screening

Positive toxicology screens can prevent students from participating in a clinical assignment per facility contractual agreements. The following guides the response to a positive toxicology screening for any student:

1. All specimens identified as non-negative/positive on the initial test shall be confirmed, reviewed, and interpreted by the vendor.
2. The student is required to provide documentation by a healthcare provider in the event there is a medical explanation for a positive result (i.e., the result of a prescribed medication). In accordance with federal law, a positive toxicology screen for legally prescribed marijuana can prohibit a student from being placed in a clinical setting that accepts federal funding.
3. If a student challenges a result, only the original sample can be retested.

Learning Outcomes:

(Based on JRCERT accreditation standards)

Upon completion of the Program:

Goal 1: Students will demonstrate effective communication skills

Student Learning Outcomes:

- 1: Students will use effective oral communication skills with a wide variety of audiences in the clinical setting
- 2: Students will practice effective written communication skills

Goal 2: Students will utilize critical thinking skills

Student Learning Outcomes:

- 1: Students will assess images for diagnostic quality
- 2: Students will assess images and make appropriate adjustment(s) as needed

Goal 3: Students will be clinically competent when performing entry level imaging procedures

Student Learning Outcomes:

- 1: Students will accurately position patients for radiographic procedures based on patient assessment
- 2: Students will select appropriate technical factors to obtain diagnostic quality images based on patient assessment
- 3: Students will utilize radiation safety for self and others

Goal 4: Students will demonstrate professional behavior

Student Learning Outcomes:

- 1: Students will demonstrate professionalism in the program
- 2: Students will participate in professional activities with state and national organizations

The Radiography Program at Capital Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org/>, Email: mail@jrcert.org, Program Website: <https://www.capitalcc.edu/academics/programs/rad-tech/>

The Radiography Program at Naugatuck Valley Community College is accredited through the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, Phone: (312) 704-5300, Fax: (312) 704-5304, Website: <https://www.jrcert.org/>, Email: mail@jrcert.org, Program Website: <https://nv.edu/Academics/Academic-Programs/Areas-of-Study/Radiologic-Technology>

Students will be charged the Supplemental Course (program) Fee Level 1 every fall and spring semesters while in the program.

Graduation Requirements:

- Complete the CT State general education core curriculum
- Complete the Radiography program curriculum with a grade of C or higher in each program specific course and a C+ or higher in Anatomy & Physiology I and II course and College Algebra course.
- Complete the American Registry of Radiologic Technologists (ARRT) Clinical Competency Requirements
- Complete American Registry of Radiologic Technology General Patient Care Competency Requirements.
- Be Cardiopulmonary Resuscitation (CPR) or Basic Life Support (BLS) certified

Clinical Curriculum:

The structure of the clinical curriculum is designed to be sequential and progress in complexity. Each campus program will have their own clinical sites that are approved and recognized by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students will be assigned to the clinical education sites approved for the campus program they are accepted into. The Capital and Naugatuck Valley campuses are currently affiliated with the following sites (clinical sites may be added or removed as necessary):

Capital Campus

- Manchester Memorial Hospital
- Rockville General Hospital
- Evergreen Imaging, ECHN
- Saint Francis Hospital
- Jefferson Radiology, Wethersfield
- Jefferson Radiology, Avon

Naugatuck Valley Campus

Bristol Hospital
Charlotte Hungerford Hospital
Danbury Hospital
Ortho CT of Danbury
New Milford Hospital
St. Mary's Hospital
Waterbury Hospital Health Center
Diagnostic Imaging Associates(Naugatuck Valley Radiological Associates Southbury, Prospect, Waterbury) Orthopedics of New England
Greater Waterbury Imaging Center

Radiography General Education Core (22-23 credits)

ENG 1010 - Composition *Credits: 3 (pre-admission requirement)*
MATH 1600 - Pathway to Calculus: College Algebra *Credits: 3*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
BIO 2111 - Anatomy & Physiology I *Credits: 4 (pre-admission requirement)*
PSY 1011 - General Psychology I *Credits: 3*
COMM 1301 - Public Speaking *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Radiography Program Core (44 credits)

RAD 1002 - Radiographic Procedures I *Credits: 3*
RAD 1002L - Radiographic Procedures I Lab *Credits: 1*
RAD 1010 - Radiographic Procedures II *Credits: 3*
RAD 1010L - Radiographic Procedures II Lab *Credits: 1*
RAD 1011 - Imaging/Exposure I *Credits: 3*
RAD 1012 - Imaging/Exposure II *Credits: 3*

RAD 1094 - Radiography Clinical I *Credits: 2*
RAD 1194 - Radiography Clinical II *Credits: 2*
RAD 1294 - Radiography Clinical III *Credits: 2*
RAD 2001 - Radiographic Procedures III *Credits: 3*
RAD 2001L - Radiographic Procedures III Lab *Credits: 1*
RAD 2002 - Imaging/Exposure III *Credits: 3*
RAD 2002L - Imaging/Exposure III Lab *Credits: 1*
RAD 2090 - Senior Seminar *Credits: 3*
RAD 2015 - Radiographic Pathology *Credits: 3*
RAD 2022 - Radiobiology & Radiation Safety for the Radiographer *Credits: 3*
RAD 2094 - Radiography Clinical IV *Credits: 3*
BIO 2112 - Anatomy & Physiology II *Credits: 4 (pre-admission requirement)*

Additional Naugatuck and Capital courses (6 credits)

RAD 1001 - Introduction to Radiologic Sciences and Patient Care *Credits: 3*
RAD 2194 - Radiography Clinical V *Credits: 3*

Total Credits: 72-73**Clinical Curriculum**

The structure of the clinical curriculum is designed to be sequential and progress in complexity. Each campus program will have their own clinical sites that are approved and recognized by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students will be assigned to the clinical education sites approved for the campus program they are accepted into. The following campuses are currently affiliated with the following sites (clinical sites may be added or removed as necessary):

Capital Campus:

Manchester Memorial Hospital
Rockville General Hospital
Evergreen Imaging, ECHN
Saint Francis Hospital
Jefferson Radiology, Wethersfield
Jefferson Radiology, Avon

Naugatuck Valley Campus:

Bristol Hospital
Charlotte Hungerford Hospital
Danbury Hospital
Ortho CT of Danbury
New Milford Hospital
St. Mary's Hospital
Waterbury Hospital Health Center
Diagnostic Imaging Associates
(Naugatuck Valley Radiological Associates
Southbury, Prospect, Waterbury)
Orthopedics of New England
Greater Waterbury Imaging Center

Radiography: Computed Tomography Certificate (CATC-CC)

The Computed Tomography (CT) program at the Middlesex Campus of CT State Community College (CT State) is designed to prepare certified/registered imaging professionals registered with the American Registry of Radiologic Technologists (ARRT) in Radiography, Nuclear Medicine Technology (registration with Nuclear Medicine Technology Certification Board (NMTCB) is also accepted), or Radiation Therapy for immediate employment in the workplace as CT Technologists in hospitals, clinics, and medical offices. The program emphasizes that quality patient care will be provided by individuals who have received instruction based on educational and instructional guidelines consistent with the profession.

Learning Outcomes:

The Middlesex Campus of CT State CT Program is dedicated to educating and training students to become certified/registered, professional, and competent technologists in the field of CT within Radiologic Sciences. The mission statement is realized through the attainment of the following goals:

- Students will correctly apply positioning skills for patient CT procedures based on patient assessment.
- Students will select appropriate technical factors for patient CT procedures based on patient assessment.
- Students will practice radiation safety.
- Students will correctly apply positioning skills for patient CT procedures based on patient assessment.
- Students will select appropriate technical factors for patient CT procedures based on patient assessment.
- Students will practice radiation safety.
- Students will demonstrate professional behaviors.
- Students will use effective oral communication skills.
- Students will practice effective written communication skills.

This is a selective admission program; thus, students must be accepted into the program in order to register for program courses. Selective admissions criteria are completed program application which includes high school transcript, complete immunization records, ARRT/NMTCB certification, copy of a current State of Connecticut Radiographer license (as applicable), and interview. According to the ARRT supporting category requirements, the supporting categories prerequisites (primary certifications) for computed tomography are radiography, nuclear medicine technology (NMTCB) and radiation therapy. Thus, the post primary certification will be computed tomography.

The Middlesex Campus of CT State CT Certificate program is a two-semester program for certified/registered Radiographers interested in a career as a CT Technologist. The program accepts and starts a new class during the fall semester each year.

Following the successful completion of all Program requirements and obligations to the college, students are awarded the Certificate in CT and are eligible to take the ARRT post-primary exam in CT. A minimum score of 75 on the national post- primary certification examination is required for CT certification.

The program adheres to CT State Student and Faculty Non-Discrimination policies in that there is no discrimination of student or faculty on the basis of race, color, national or ethnic origin, religion, age, sex, marital or veteran status, sexual orientation, physical disability, or any other legally protected status.

Our graduates are allied health professionals who administer ionizing radiation for diagnostic, therapeutic or research purposes. They perform CT procedures and related techniques producing data at the request of and interpretation by a licensed independent practitioner. Employment opportunities include education, sub-specialization, sales and applications, and administration.

Required Courses

- CAT 2001 - Cross Sectional Anatomy I *Credits: 1*
- CAT 2002 - CT Image Display, Post Processing & Quality Assurance I *Credits: 2*
- CAT 2003 - CT Procedures and Instrumentation I *Credits: 2*
- CAT 2004 - Clinical Experience I *Credits: 4*
- CAT 2005 - Cross Sectional Anatomy II *Credits: 2*
- CAT 2006 - CT Image Display, Post Processing & Quality Assurance II *Credits: 3*
- CAT 2007 - CT Procedures and Instrumentation II *Credits: 3*
- CAT 2008 - Clinical Experience II *Credits: 4*

Total Credits: 21

Radiography: Magnetic Resonance Imaging (MRIC-CC)

The Magnetic Resonance Imaging (MRI) program at the Middlesex Campus of CT State Community College (CT State) is designed to prepare certified imaging professionals registered with the American Registry of Radiologic Technologists (ARRT) in Radiography, Nuclear Medicine (Nuclear Medicine Technology Certification Board (NMTCB) is also accepted), Radiation Therapy, or Sonography (American Registry for Diagnostic Medical Sonographers (ARDMS) is also accepted) for immediate employment in the workplace as Magnetic Resonance (MR) Technologists in hospitals, clinics, and medical offices. The program emphasizes that quality patient care will be provided by individuals who have received instruction based on educational and instructional guidelines consistent with the profession.

Learning Outcomes:

The Middlesex Campus of CT State MRI Program is dedicated to educating and training students to become certified, professional, and competent technologists in the field of MRI within Radiologic Sciences.

- Students will correctly apply positioning skills for patient MRI procedures based on patient assessment.
- Students will select appropriate technical factors for patient MRI procedures based on patient assessment.
- Students will practice MRI safety.
- Students will correctly apply positioning skills for patient MRI procedures based on patient assessment.
- Students will select appropriate technical factors for patient MRI procedures based on patient assessment.
- Students will practice MRI safety.
- Students will demonstrate professional behaviors.
- Students will use effective oral communication skills.
- Students will practice written communication skills.

Our graduates are allied health professionals who utilize strong magnetic fields on humans for diagnostic, therapeutic or research purposes. They perform MRI procedures and related techniques producing data at the request of and interpretation by a licensed independent practitioner. Employment opportunities include education, sub-specialization, sales and applications, and administration.

MRI Certificate students must be certified/registered imaging professionals registered with the ARRT in Radiography, Nuclear Medicine Technology (registration with NMTCB is also accepted), or Radiation Therapy or Sonography (ARDMS).

This program prepares students to take the national MRI certification examination provided by the ARRT. Are there pre-requisite courses or professional experiences?

This is a selective admission program; thus, students must be accepted into the program in order to register for program courses. Selective admissions criteria are completed program application which includes high school transcript, complete immunization records, ARRT/NMTCB/ARDMS certification, copy of a current State of Connecticut Radiographer license (as applicable), and interview. According to the ARRT supporting category requirements, the supporting categories pre-requisites (primary certifications) for MRI are radiography, nuclear medicine technology (NMTCB), radiation therapy and sonography (ARDMS). Thus, the post primary certification will be MRI. The Middlesex Campus of CT State MRI Certificate program is a two-semester program for certified/registered Radiographers and Sonographers interested in a career as a MR Technologist. The program accepts and starts anew class during the fall semester each year. Following the successful completion of all Program requirements and obligations to the college, students are awarded the MRI Certificate and are eligible to take the ARRT post-primary exam in MRI. A minimum score of 75 on the ARRT postprimary certification examination is required for certification as a MRI Technologist.

Our graduates are allied health professionals who utilize strong magnetic fields on humans for diagnostic, therapeutic or research purposes. They perform MRI procedures and related techniques producing data at the request of and interpretation by a licensed independent practitioner. Employment opportunities include education, sub-specialization, sales and applications, and administration.

Required Courses

- MRI 2001 - Cross Sectional Anatomy I *Credits: 1*
OR CAT 2001 - Cross Sectional Anatomy I *Credits: 1*
MRI 2002 - MRI Pathology I *Credits: 1*
MRI 2003 - MRI Procedures and Instrumentation I *Credits: 2*
MRI 2004 - MRI Image Quality, Equipment and Safety Essentials I *Credits: 2*
MRI 2094 - Clinical Experience I *Credits: 4*
MRI 2005 - Cross Sectional Anatomy II *Credits: 2*
OR CAT 2005 - Cross Sectional Anatomy II *Credits: 2*
MRI 2007 - MRI Pathology II *Credits: 1*
MRI 2008 - MRI Procedures and Instrumentation II *Credits: 3*
MRI 2009 - MRI Image Quality, Equipment and Safety Essentials II *Credits: 2*
MRI 2194 - Clinical Experience II *Credits: 4*

Total Credits: 22

Radiography: Mammography Certificate (MAMM-CC)

Location: Middlesex Campus

The Mammography program at the Middlesex Campus of CT State Community College (CT State) is designed to prepare certified/registered Radiographers for immediate employment in the workplace as Mammographers in hospitals, clinics, and medical offices. The program emphasizes that quality patient care will be provided by individuals who have received instruction based on educational and instructional guidelines consistent with the mammography profession.

Learning Outcomes:

The Mammography Program at the Middlesex Campus of CT State is dedicated to educating and training students to become certified, professional, and competent technologists in the field of Mammography within Radiologic Sciences. The mission statement is realized through the attainment of the following goals:

- Students will correctly apply positioning skills for patient mammography procedures based on patient assessment.
- Students will select appropriate technical factors for patient mammography procedures based on patient assessment.
- Students will practice radiation safety.
- Students will correctly apply positioning skills for patient mammography procedures based on patient assessment.
- Students will select appropriate technical factors for patient mammography procedures based on patient assessment.
- Students will practice radiation safety.
- Students will demonstrate professional behaviors.
- Students will use effective oral communication skills.
- Students will practice effective written communication skills.

The Program's mission is achieved when the student has successfully completed and achieved all Program Goal sand Outcomes. The program mission complements the missions and values of our clinical affiliates.

Students must be current certified/registered radiographers. This program prepares students to take the national mammography certification examination provided by the American Registry of Radiologic Technologists (ARRT).

This is a selective admission program; thus, students must be accepted into the program in order to register for program courses. Selective admissions criteria are completed program application which includes high school transcript, complete 203 immunization records, ARRT certification, copy of a current State of Connecticut Radiographer license, and interview. According to the ARRT supporting category requirements, the supporting category pre-requisite (primary certification) for mammography is radiography. Thus, the post primary certification will be mammography.

The Mammography Certificate program at the Middlesex Campus of CT State is a one-semester program for certified Radiographers interested in a career as a Mammographer. Students are trained to meet the standards contained in the Practice Standards for Medical Imaging and Radiation Therapy Technologists - Mammography Practice Standards.

Following the successful completion of all Program requirements and obligations to the college, students are awarded the Certificate in Mammography and are eligible to take the ARRT post-primary exam in mammography. A minimum score of 75 on the ARRT post-primary certification examination is required for certification/registration as a Mammographer.

The program adheres to CT State Student and Faculty Non-Discrimination policies in that there is no discrimination of student or faculty on the basis of race, color, national or ethnic origin, religion, age, sex, marital or veteran status, sexual orientation, physical disability, or any other legally protected status. Our graduates are allied health professionals who administer ionizing radiation for diagnostic, therapeutic or research purposes. A mammography technologist performs breast imaging procedures and related techniques producing data at the request of and with interpretation by a licensed independent practitioner. The mammographer performs the breast imaging procedures that create mammographic images needed for diagnosis. Employment opportunities include education, sub-specialization, sales and applications, and administration.

Required Courses

MAM 2001 - Principles of Mammography *Credits: 4*

MAM 2094 - Mammography Clinical Experience *Credits: 4*

Total Credits: 8

Railroad Engineering Technology, AS (RREN-AS)

Railroad Engineering Technology will prepare students for employment in the railroad industry within a career path for maintaining and repairing railcars through a degree orientation in electromechanical equipment.

Graduates will be prepared for technical application exams commonly administered by railroad companies for entry-level maintenance of equipment positions. The program reflects current skills needed within job positions that require electromechanical knowledge and skills.

Learning Outcomes:

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

- Demonstrate and have an understanding of typical railroad rules and regulations, including changes that are a result of accidents and imposed by Homeland Security
- Demonstrate a basic understanding of career opportunities within the railroad industry with an Electromechanical-oriented degree
- Demonstrate a basic understanding of the operation of railcar electromechanical systems
- Conduct entry-level troubleshooting and repairs of electromechanical systems on railcars
- Be prepared to take an application exam on electromechanical skills for employment in the railroad industry

Railroad Engineering Practicum Information: Practicum experiences may be assigned during daytime, evening or weekend hours; assignments are subject to change based upon availability of practicum sites and numbers in groups; practicum sites could be within an hour radius of the college and may require a mandatory parking fee; students must make their own travel arrangements during the program. Practicum learning experiences are planned as an integral part of the railroad engineering technology courses, and are held at a variety of railroad settings, such as the Shoreline Trolley Museum/Branford Railway and the Railroad Museum of New England/Naugatuck Railroad. This program is offered at the Gateway Campus.

Criminal Background Checks & Toxicology Screening: Practicum sites may now require criminal background checks and/or toxicology screening (drugs/alcohol) be completed on any student who will be attending a practicum rotation at those sites. Students must follow instructions for obtaining a background and/or toxicology screening at the college if necessary. Students who are found guilty of having committed a felony/misdemeanor and/or are found to have a positive toxicology screen may be prevented from participating in practicum exercises. Those who cannot participate in a practicum at an assigned facility, may not be able to complete the objectives of the course and of the program. Specific situations are reviewed by college personnel.

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1002 - Math for Science and Technology *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

PHYS 1009 or higher *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (45 Credits)

CENT 1016 - Computer Applications for Technology *Credits: 3*

CENT 1026 - Computer Servicing *Credits: 4*

OR CENT 2010 - Computer Systems Software *Credits: 4*

EETA 1010 - DC Circuit Analysis *Credits: 4*

RRET 1001 - History of Railroad *Credits: 3*

RRET 1010 - Careers in Railroad *Credits: 2*

RRET 1020 - Railroad Rules, Regulations, Standards & Practices *Credits: 3*

RRET 2020 - Safety in the Railroad Workplace *Credits: 3*

RRET 2030 - Reading & Interpreting Railroad Diagrams *Credits: 2*

RRET 2040 - Railroad Pneumatics & Hydraulic Controls *Credits: 4*

RRET 2042 - Railroad HVAC Systems *Credits: 4*

RRET 2044 - Railroad Electromechanical Troubleshooting *Credits: 4*

RRET 2095 - Practicum in Passenger Railroad Technology *Credits: 1*

*Legacy courses EET*103 Fundamentals of Electricity and MEC*234 Electromechanical Controls are pending approval and will be added here when approved.*

Total Credits: 67-68

Railroad Engineering Technology: Signaling and Communications, AS (RREN-AS-SIG)

The Railroad Engineering Technology Signaling and Communications option will prepare students for employment in the railroad industry for maintaining and repairing rail line and railcars where signaling and communications systems are used. Graduates will be prepared for technical application exams commonly administered by railroad companies for entry-level signaling and switching positions. The program reflects current skills needed within job positions that require electronic and communications knowledge and skills. This program is offered at the Gateway Campus.

Learning Outcomes:

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

- Demonstrate and have an understanding of typical railroad rules and regulations, including changes that are a result of accidents and imposed by Homeland Security
- Demonstrate a basic understanding of career opportunities within the railroad industry with an Electromechanical-oriented degree
- Demonstrate a basic understanding of the operation of railcar signaling and communication systems
- Conduct entry-level troubleshooting and repairs on signaling and communications systems along rail lines and on railcars
- Be prepared to take an application exam on signaling and communications skills for employment in the railroad industry

Railroad Engineering Practicum Information: Practicum experiences may be assigned during daytime, evening or weekend hours; assignments are subject to change based upon availability of practicum sites and numbers in groups; practicum sites could be within an hour radius of the college and may require a mandatory parking fee; students must make their own travel arrangements during the program. Practicum learning experiences are planned as an integral part of the railroad engineering technology courses, and are held at a variety of railroad settings, such as the Shoreline Trolley Museum/Branford Railway and the Railroad Museum of New England/Naugatuck Railroad.

Criminal Background Checks & Toxicology Screening: Practicum sites may now require criminal background checks and/or toxicology screening (drugs/alcohol) be completed on any student who will be attending a practicum rotation at those sites. Students must follow instructions for obtaining a background and/or toxicology screening at the college if necessary. Students who are found guilty of having committed a felony/misdemeanor and/or are found to have a positive toxicology screen may be prevented from participating in practicum exercises. Those who cannot participate in a practicum at an assigned facility, may not be able to complete the objectives of the course and of the program. Specific situations are reviewed by college personnel.

General Education Courses (22-23 Credits)

ENG 1010 - Composition *Credits: 3*
 MATH 1002 - Math for Science and Technology *Credits: 3*
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 PHYS 1009 or higher *Credits: 3-4*
 ECON 1001 - Principles of Macroeconomics *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
OR Elective WRIX - Written Communication II Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Program Courses (44 Credits)

CENT 1016 - Computer Applications for Technology *Credits: 3*
 CENT 1026 - Computer Servicing *Credits: 4*
OR CENT 2010 - Computer Systems Software *Credits: 4*
 EETA 1010 - DC Circuit Analysis *Credits: 4*
 RRET 1001 - History of Railroad *Credits: 3*
 RRET 1010 - Careers in Railroad *Credits: 2*
 RRET 1020 - Railroad Rules, Regulations, Standards & Practices *Credits: 3*
 RRET 2020 - Safety in the Railroad Workplace *Credits: 3*
 RRET 2050 - Railroad Signaling & Switching *Credits: 4*
 RRET 2052 - Railroad Communications *Credits: 4*
 RRET 2054 - Railroad Maintenance, Troubleshooting and Repair *Credits: 4*
 RRET 2095 - Practicum in Passenger Railroad Technology *Credits: 1*
 RRET 2195 - Practicum in Freight Railroad Technology *Credits: 1*

Total Credits: 66-67

Respiratory Care, AS (RESP-AS-MA and RESP-AS-NN)

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. The associate degree program in Respiratory Care provides hands-on education in diverse settings including human patient simulation, adult and neonatal/pediatric critical care, emergency care, long-term 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.

Learning Outcomes:

The goal of the Respiratory Care Program is to prepare graduates with demonstrated competencies in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by Registered Respiratory Therapist (RRTs). Upon successful completion of the program, the graduate will:

- Assist physicians/licensed independent practitioners in the diagnosis, management, and treatment of patients affected by cardiopulmonary disorders.
- Collect and evaluate clinical information relevant to their role as a respiratory therapist.
- Participate in the inter-disciplinary plan of care.
- Provide patient education concerning health management and prevention of respiratory disease.
- Demonstrate proficiency in all skills and competencies required of a respiratory therapist described by the Commission on Accreditation for Respiratory Care (CoARC).
- Promote evidence-based practice by using established clinical practice guidelines and evaluating published research for its relevance to patient care.
- Collaborate and communicate effectively with patients, their families, and members of the health care team to enhance patient care.
- Adhere to American Association for Respiratory Care (AARC) statement of ethics and professional conduct.
- Apply principles and practices of patient safety and process improvement in all aspects of respiratory care.
- Incorporate principles of social, behavioral, biological sciences and humanities to the role of Respiratory Therapist.

Admission Process:

The Respiratory Care is a selective admissions program. All students must first apply to Connecticut State Community College. There is also a Respiratory Care Application that must be submitted prior to the application deadline date.

Unless waived, all applicants must take placement tests in reading, English and mathematics. Students must meet the following admission requirements:

Attend a mandatory Respiratory Care Program information session.

Have a minimum GPA of 2.5 and complete the following courses prior to the application deadline.

- ENG 1010 Composition (grade of "C" or higher)
- MATH 1010 Intermediate Algebra or higher {grade of "C" or higher}
- CHEM 1110 Concepts of Chemistry or CHEM 1210 General Chemistry I (grade of "C" or higher and within 5 years of program start date)
- BIO 2111 Anatomy & Physiology I (meets the grade pre-requisite of BIO 2112 and within the past five years of the program start date)

TEAS (test for essential academic skills) testing is required as part of the application process. Applicants will be considered for admission to the program if they have earned a score of 53.3% or higher. (www.ATItesting.com)

Criminal Background checks and Toxicology screenings.

Clinical sites require criminal background checks and toxicology screening completed on any Respiratory Care student who will be attending a clinical rotation at their facility. Some clinical sites require additional FASC III background check checks at an additional cost.

Students must follow instructions for obtaining these tests.

The following guides the response to a positive toxicology screening for any student

- All specimens identified as non-negative/positive on the initial test shall be confirmed, reviewed, and interpreted by the vendor.

- The student is required to provide documentation by a healthcare provider in the event there is a medical explanation for a positive result (i.e., the result of a prescribed medication). In accordance with federal law, a positive toxicology screen for legally prescribed marijuana can prohibit a student from being placed in a clinical setting that accepts federal funding.
- If a student challenges a result, only the original sample can be retested.

Any student that does not pass a background check or toxicology screen may be prevented from participating in a clinical assignment per facility contractual agreements. Results of student background checks and toxicology screenings do not become a part of the student's educational records, as defined by the Family Educational Rights and Privacy Act (FERPA).

Health Requirements:

All students are required to have a physical examination performed within 12 months of the Respiratory Care program clinical start date, with documentation of ability to perform the technical standards with no restrictions. In addition to the college's healthcare requirements, a health assessment form and immunization records must be completed and submitted electronically by the student into the health form tracking system, by the assigned date, prior to attending clinical rotation.

Additional Program fees:

Students will be charged the Supplemental Course (program) Fee Level 1 every fall and spring semester while in the program. Some other additional fees include:

- Uniforms and stethoscope
- Medical insurance
- Physical examination, blood work, immunizations, vaccinations
- CPR training
- Textbooks and lab supplies
- Transportation and associated costs for clinical sites
- Electronic clinical management system subscription.
- Electronic medical tracking/background management system subscription.
- Toxicology screening(s)
- Background check(s)
- TEAS test

The Manchester Community College Respiratory Care Program (A.S. degree) is accredited by the Commission on Accreditation for Respiratory Care. Information about COARC can be obtained by visiting www.coarc.com. Manchester Community College Program number: 200044. Program outcomes can be obtained by clicking on the link below: <https://coarc.com/students/programmatic-outcomes-data/>

The Naugatuck Valley Community College Respiratory Care Program (A.S. degree) is accredited by the Commission on Accreditation for Respiratory Care. Information about COARC can be obtained by visiting www.coarc.com. Naugatuck Valley Community College Program number: 200460. Program outcomes can be obtained by clicking on the link below: <https://coarc.com/students/programmatic-outcomes-data/>

The Norwalk Community College Respiratory Care Program (A.S. degree) is accredited by the Commission on Accreditation for Respiratory Care. Information about COARC can be obtained by visiting www.coarc.com. Norwalk Community College Program number: 200090. Program outcomes can be obtained by clicking on the link below: <https://coarc.com/students/programmatic-outcomes-data/>

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3 [pre-admission requirement]*
MATH 1010 or higher *Credits: 3 [pre-admission requirement]*
Elective ARHX - Arts & Humanities Course *Credits: 3-4*
CHEM 1110 - Concepts of Chemistry *Credits: 4 [pre-admission requirement] or higher*
PSY 1011 - General Psychology I *Credits: 3*
Elective ORAX - Oral Communication Course *Credits: 3*
CCS 1001 - College & Career Success *Credits: 3*

Program Courses (50-54 credits)

BIO 1005 - Introduction to Biology *Credits: 4*
 OR BIO 1210 - General Biology I *Credits: 4*
 OR BIO 1111 - Cell Biology with Organ Systems *Credits: 4*
BIO 2111 - Anatomy & Physiology I *Credits: 4*
BIO 2112 - Anatomy & Physiology II *Credits: 4*
BIO 2350 - Microbiology *Credits: 4*
RESP 1021 - Cardiopulmonary Anatomy and Physiology *Credits: 3*
RESP 1031 - Respiratory Care Pharmacology *Credits: 3*
RESP 1041 - Principles of Respiratory Care I *Credits: 3*
RESP 1041L - Principles of Respiratory Care I Lab *Credits: 1*
RESP 1042 - Principles of Respiratory Care II *Credits: 5*
RESP 1094 - Clinical Practicum *Credits: 2*
RESP 2001 - Future Trends *Credits: 2*
RESP 2051 - Cardiopulmonary Pathophysiology *Credits: 3*
RESP 2060 - Mechanical Ventilation *Credits: 4*
RESP 2065 - Advanced Critical Care *Credits: 3*
RESP 2071 - Diagnostic Respiratory Care *Credits: 3*
RESP 2094 - Advanced Clinical Practicum I *Credits: 2*
RESP 2194 - Advanced Clinical Practicum II *Credits: 2*
RESP 2085 - Perinatal and Pediatric Respiratory Care *Credits: 2*
PHYS 1100 - Introductory Physics *Credits: 4 (Manchester Campus only)*

Total Credits: 72-77 (includes 14-18 pre-program credits)

Small Business and Entrepreneurship Certificate (SBME-CC)

The certificate program is designed to prepare prospective entrepreneurs in the fundamentals of starting and managing their own businesses and to launch new ventures. For entrepreneurs who already have an established business, the program will help them strengthen their business and managerial skills. Students may complete the program in two semesters. Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Students will be able to apply the credits earned towards an AS degree in Entrepreneurial Studies.

Learning Outcomes:

- Identify core concepts of entrepreneurship and small business management and their impact on society and the global economy.
- Describe the legal and ethical environments for entrepreneurs and small businesses.
- Demonstrate analytical, problem-solving, and decision-making skills applicable to entrepreneurship and small business management
- Demonstrate information literacy through research skills and the use of technology.
- Apply effective written and oral communication skills to business situations.

Required Courses

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

BENT 2170 - Small Business Management & Growth *Credits: 3*

BENT 2300 - Business Plan *Credits: 3*

OR BENT 2098 - Launch a Business *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

Business Electives - Chooses two courses from: ACCT, BENT, BUSN, BFIN, BMGT, BMKT, ECON, HOSP 2244, CSA
Credits: 6

Total Credits: 21

Small Business and Entrepreneurship, AS (SBME-AS)

Small businesses are vital to the growth of our economy and will create most new jobs. This career program prepares students to be entrepreneurs and to start up new businesses, expand existing businesses, or apply entrepreneurial skills in a corporate setting. It also develops small business management skills to operate small businesses. This program will provide an opportunity to develop entrepreneurial skills with an understanding of marketing, accounting, business law, and management as they relate to business ownership. Practical training is provided through internships in small business settings. The program courses may be transferred to bachelor's degree programs.

Program Learning Outcomes:

1. Identify core concepts of entrepreneurial ventures and small business management and their impact on society and the global economy.
2. Describe the legal and ethical environments for entrepreneurs and small businesses.
3. Demonstrate analytical, problem-solving, and decision-making skills applicable to entrepreneurial ventures and small business management
4. Demonstrate information literacy through research skills and the use of technology.
5. Apply effective written and oral communication skills to business situations.

Program Descriptors:

This is a career/workforce specialized degree. The Small Business Management and Entrepreneurship students utilize the Gateway Small Business Center, and the Werth Center for Innovation and Entrepreneurship at Housatonic Community College. The Werth Center provides mentoring, workshops, MakerSpace, and a student store/website. In the Launch a Business (BES 295) capstone course, students focus on launching businesses or growing their existing businesses. The BES 295 course is currently taught jointly with Gateway and Housatonic students. This degree program can be completed fully online.

Note: According to the *Wall Street Journal* on Nov. 29, 2021, "The pandemic has unleashed a historic burst in entrepreneurship and self-employment. Hundreds of thousands of Americans are striking out on their own as consultants, retailers, and small-business owners. The number of unincorporated self-employed workers has risen by 500,000 since the start of the pandemic, Labor Department data show, to 9.44 million. That is the highest total since the financial-crisis year 2008, except for this summer. The total amounts to an increase of 6% in the self-employed, while the overall U.S. employment total remains 3% lower than before the pandemic."

General Education Courses (21-23)

ENG 1010 - Composition *Credits: 3*

MATH 1001 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4* Recommended: ART, ENG, or GRA

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

OR ECON 1002 - Principles of Microeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

ACCT 1250 - Accounting Applications I *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

BUSN 2195 - Business Co-op Internship *Credits: 3*

BENT 2180 - Entrepreneurship *Credits: 3*

BENT 2170 - Small Business Management & Growth *Credits: 3*

BENT 2300 - Business Plan *Credits: 3*

OR BENT 2098 - Launch a Business *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BMKT 2015 - Principles of eBusiness *Credits: 3*

CSA 1110 - Introduction to Software Applications *Credits: 3*

OR CSA 1111 - Spreadsheet Applications *Credits: 3*

Business Electives - choose from: ACCT, BENT, BUSN, BFIN, BMGT, BMKT, ECON, HOSP 2244, CSA. With approval of program coordinator, course related to starting a business can be selected from outside of the business department. *Credits: 9*

Total Credits: 60-62

Sociology Studies - TAP/CSCU Transfer Degree, AA (SOCI-AA-TAP)

This program is a **CSCU Pathway Transfer Degree in Sociology, A.A.** that is intended for Connecticut Community College students to transfer to Connecticut State Universities (Southern CT State University, Central CT State University, Eastern State University, Western State University) and Charter Oak State College without either losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline.

Program Learning Outcomes:

- Complete an Associate of Arts degree in Sociology.
- Transfer seamlessly into a Bachelor of Arts or Science Degree in Sociology with junior-level status in the receiving CSCU institution as part of the CSCU Transfer Tickets program.

Framework Courses (30-34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30-credits)

Elective CRTY - Creativity Course *Credits: 3*

Elective GLKY - Global Knowledge Course *Credits: 3*

SOC 1001 - Principles of Sociology *Credits: 3*

Sociology Electives - 6 credits must be at the 2000 level *Credits: 9*

Open Electives *Credits: 12*

Total Credits: 60-64

Spanish Studies - TAP/CSCU Transfer Degree, AA (SPAN-AA-TAP)

The CSCU Pathway Transfer Degree in Spanish Studies, A.A. prepares students to continue their education at any Connecticut State University (CSU) leading to a baccalaureate degree in Spanish. It is designed to strengthen and develop skills in Spanish expression: critical reading, writing, thinking, listening, speaking, and research through the study of language, literature, culture, and related disciplines.

Learning Outcomes:

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

- Demonstrate listening proficiency in the target language at the Intermediate Low level as per the American Council on the Teaching of Foreign Languages (ACTFL) guidelines*.
- Demonstrate speaking proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate reading proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate writing proficiency in the target language at the Intermediate Low level as per the ACTFL guidelines*.
- Demonstrate analytic, interpretative, and critical thinking skills in regard to language and the communication process.
- Recognize that understanding other cultures will enrich one's own life and result in lifelong learning.
- Apply critical thinking skills to the understanding of cultural differences and similarities.

*<https://www.actfl.org/publications/guidelines-and-manuals/actfl-proficiency-guidelines-2012>

This program is transfer focused. It is designed to prepare students with an interest in Spanish studies to transfer to a four-year college or university at the junior level in pursuit of a bachelor's degree.

With this degree students will be able to transfer to the following majors:

At Central Connecticut State University:

- Spanish B.A.
- Spanish B.S.ED. (7-12)
- Spanish B.S.ED. SPANISH with Specialization in Inter-University Spanish Language and Culture

At Eastern Connecticut State University: Spanish B.A.

At Southern Connecticut State University:

- Spanish B.A.
- Spanish 7-12, B.S.
- Spanish B.S. Hispanic Studies
- Spanish B.S. Translation Studies
- Spanish B.S. Health and Human Service Professionals

At Western Connecticut State University:

- Spanish B.A.
- Spanish B.S. Secondary Education

Framework Courses (30-34 credits)

* At least one course with a lab must be taken in either **Scientific Reasoning** or **Scientific Knowledge and Understanding**.

ENG 1010 - Composition *Credits: 3*

Elective QUAX - Quantitative Reasoning Course *Credits: 3-4*

Elective WRIX - Written Communication II Course *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

Elective HISX - Historical Knowledge Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30 credits)

SPAN 1011 - Elementary Spanish I *Credits: 4* ^

SPAN 1012 - Elementary Spanish II *Credits: 4* ^

SPAN 2010 - Spanish for Heritage Speakers *Credits: 4* ^^

OR SPAN 2011 - Intermediate Spanish I *Credits: 4* ^^

SPAN 2012 - Intermediate Spanish II *Credits: 4* ^^

COMM 1305 - Intercultural Communication *Credits: 3*

OR GEOG 1010 - World Regional Geography *Credits: 3*

OR HUM 1019 - Short-term Study Abroad *Credits: 3*

OR Elective GLKY - Global Knowledge Course *Credits: 3*

Elective CRTY - Creativity Course *Credits: 3*

Unrestricted electives *8-20 Credits*

Students who begin Spanish at a higher level than SPAN 1011 will receive additional unrestricted electives. They should consider taking additional upper-level Spanish courses such as SPAN 2111 Advanced Spanish I or SPAN 2112 Advanced Spanish II.

Students should consider beginning work on minor requirements of some CSUs. They may also complete other General Education requirements (for CCSU, WCSU, SCSU, and CO-but NOT ECSU)

Total Credits: 60-64

^Or students may elect to replace SPAN 1011 and SPAN 1012 with SPAN 1013 Elementary Spanish I & II (8 credits)

^^Or students may elect to replace (SPAN 2010 or SPAN 2011) and SPAN 2012 with SPAN 2013 Intermediate Spanish I & II (8 credits)

Speech-Language Pathology Assistant, AS (SLPA-AS)

The Speech-Language Pathology Assistant (SLPA) program is designed to prepare graduates for careers working in elementary and secondary schools with children who have communication disorders. SLPAs work under the supervision of a licensed, certified Speech-Language Pathologist. The SLPA program provides students with a specialized career path as a paraprofessional.

The array of courses and programs offered will help to ensure learner success in the program and will meet local and state workforce demands in a field where there is a great need for qualified staff at the assistant level.

The program is designed for individuals currently working as paraprofessionals who wish to become Speech- Language Pathology Assistants, people seeking a career change, and all students interested in a career as an SLPA. The SLPA is guided by the program philosophy and mission statement of the Disability Specialist program. Students will receive specific skill instruction to prepare them to become effective SLPAs coupled with a positive value base that will prepare them to assist individuals with disabilities toward the goals of community inclusion and participation and the attainment of their potential.

Learning Outcomes:

Upon successful completion of all Speech-Language Pathology Assistant program degree requirements, graduates will

- Describe the process of communication and the characteristics of effective communication.
- Define the differences between communication disorders and communication differences.
- Describe the stages of language and literacy development and distinguish among language delays, language disorders and culturally-based language differences.
- Explain and differentiate among the characteristics, etiologies, and impact of phonology, voice, fluency and language disorders.
- Explain the effect of hearing loss on the development of communication skills.
- Describe the role of the speech language pathology assistant in supporting therapy plans for students in educational settings.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1201 Recommended) (Pending Spring 2023 Shared Governance Approval)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

SLP 1011 - Introduction to Speech-Language Pathology *Credits: 3*

SLP 1012 - Introduction to Speech and Language Development Birth-to-Five *Credits: 3*

SLP 1020 - Introduction to Language Disorders & Treatment in School-Age Children *Credits: 3*

SLP 1021 - Phonetics for Speech Language Pathology *Credits: 3*

SLP 1025 - Speech Sound Disorders and Treatment in Children *Credits: 3*

PSY 1163 - Children with Disabilities *Credits: 3*

PSY 1183 - Learning Process and Disability *Credits: 3*

PSY 1184 - Assistive Technology Across the Lifespan *Credits: 3*

PSY 1185 - Issues and Trends in Disabilities *Credits: 3*

SOSC 2094 - Cooperative Education/Work Experience *Credits: 3*

POLS 1002 - American Government *Credits: 3*

OR POLS 1003 - State and Local Government *Credits: 3*

ECED 2331 - Language Development and Emergent Literacy in Young Children *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

Total Credits: 60-61

Sport and Leisure Management, AS (SLMT-AS)

The Sport and Leisure Management program is designed to provide knowledge in the areas of recreational management, fitness and training, facility design and management, business, marketing, and risk management. Students receiving an Associate's of Science degree in Sport and Leisure Management could pursue entry level careers in recreation and athletic facilities, commercial sport facilities, camps, golf courses and the travel and leisure industry.

Learning Outcomes:

- Demonstrate an understanding of management issues and trends in the sport and exercise field.
- Understand the connection between various management functions and coordination of agency resources and programs.
- Demonstrate knowledge of the concept of activities of daily living and its importance in the overall health of the individual.
- Analyze the developmental characteristics for each stage of life that are the most relevant to the design and delivery of leisure and recreation service.
- Identify key aspects of facility design, maintenance, equipment maintenance and cleaning, and staffing.
- Develop and evaluate various strategies for program design and effective scheduling of facilities.
- Identify common areas of potential litigation in the athletic/recreational facility.
- Demonstrate knowledge in event management.

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

MATH 1003 - Elementary Statistics *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

BIO 1100 - Principles of the Human Body *Credits: 3*

AND BIO 1100L - Principles of the Human Body Lab *Credits: 1*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

SLM 1001 - Introduction to Recreation and Sports Leisure Studies *Credits: 3*

SLM 1010 - Introduction to Sports Management *Credits: 3*

SLM 1028 - Lifetime Fitness *Credits: 3*

SLM 2002 - Event Management *Credits: 3*

SLM 2018 - Organization and Administration for Sports and Leisure *Credits: 3*

SLM 2035 - Prevention and Treatment of Athletic Injuries *Credits: 3*

SLM 2095 - Sport and Leisure Practicum *Credits: 3*

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

HLTH 1055 - Personal Health *Credits: 3*

Total Credits: 61-62

Sport Management, AS (SPMG-AS)

The Sport Management program prepares students for a career in the sport industry with sectors including sport organizations, interscholastic sports, sport facility management and more, while also providing a seamless transfer to Southern Connecticut State University's Sport Management program. Sport courses, including specialties in marketing, finance, and media, can all be completed online allowing students throughout the state and beyond to complete some or all of the program online.

Program Learning Outcomes:

- Demonstrate working knowledge of the scope of the sport industry, along with professional practices of working in the sport management profession.
- Demonstrate knowledge of the historical and philosophical foundations of the sport management profession.
- Explain the importance of budgeting and financial management to sport-related organizations and be able to evaluate micro- and macro-economic principles as they relate to the sport industry.
- Explain legal concepts relevant to the sport industry and evaluate situations in sport settings that may have legal implications for sport organizations, entities, or participants.
- Explain and apply principles of mass media, communication, promotion, and public relations particularly as they relate to sport management.
- Communicate effectively and professionally via presentation and public speaking opportunities, and in writing to internal and external audiences.
- Explain the importance of and the procedure for organizing the workplace and defining tasks, responsibilities, and relationships.

General Education Courses (21-22 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1200 - Statistics I *Credits: 3*

MUS 1001 - Music History & Appreciation I *Credits: 3*

OR ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*

OR ARTH 1002 - Global Art History 1500 CE to present *Credits: 3*

Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

OR Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

ECON 1001 - Principles of Macroeconomics *Credits: 3*

BUSN 2100 - Business Communications *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (39 credits)

ACCT 1130 - Principles of Financial Accounting *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

BUSN 2310 - Business Law I *Credits: 3*

ECON 1002 - Principles of Microeconomics *Credits: 3*

BFIN 1100 - Personal Finance *Credits: 3*

OR BENT 2180 - Entrepreneurship *Credits: 3*

BMKT 2010 - Principles of Marketing *Credits: 3*

BMGT 2020 - Principles of Management *Credits: 3*

BMGT 2200 - Human Resource Management *Credits: 3*

BUSN 1047 - Introduction to Sport Management *Credits: 3*

BMKT 2102 - Sports Marketing *Credits: 3*

BUSN 2101 - Sports Media & Public Relations *Credits: 3*

BFIN 2113 - Sports Finance *Credits: 3*

HOSP 2244 - Meetings, Conventions & Special Events Management *Credits: 3*

Total Credits: 60-61

Surgical Technology, AS (SURG-AS-GH)

Location: Gateway and Housatonic campuses

Surgical Technologists are integral members of the surgical team who work closely with surgeons, registered nurses, and anesthesia personnel. Surgical Technologists are also responsible for assembling and organizing all the specialized instruments, equipment and tools needed for a wide variety of surgical procedures. They are experts in sterile technique and are responsible for maintaining the sterile field during surgery.

Learning Outcomes:

Upon successful completion of the program, the graduate will:

- Apply principles of anatomy, physiology, pathophysiology, and microbiology to perioperative patient care.
- Distinguish the elements, action, and use of medications and anesthetic agents used during the perioperative experience.
- Demonstrate safe practice in the role of Surgical Technologist.
- Display competence in technical skills and aseptic technique in the perioperative environment.
- Practice responsible and accountable behavior within the role and competencies of the Surgical Technologist.
- Organize the intraoperative environment efficiently as a member of the surgical team.
- Apply learned knowledge and skills in the cognitive, psychomotor, and affective domains to become nationally certified as a Surgical Technologist.

The Surgical Technology Program at CT State Community College Gateway Campus is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). The program is accredited by the: Commission on Accreditation of Allied Health Education Programs (CAAHEP), www.caahep.org, 9355-113th St., N, #7709, Seminole, FL 33775. Phone: (727) 210-2350. Fax: (727) 210-2354. Email: mail@caahep.org. Accreditation Review Council on Education in Surgical Technology and Surgical Assisting: 19751 East Mainstreet, Suite #339, Parker, CO 80138, Phone: (303) 694 - 9262, Email: info@arcstsa.org

The Surgical Technology Program at Housatonic Community College has probationary accreditation the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). The program has probationary accreditation through the: Commission on Accreditation of Allied Health Education Programs (CAAHEP), www.caahep.org, 9355-113th St., N, #7709, Seminole, FL 33775. Phone: (727) 210-2350. Fax: (727) 210-2354. Email: mail@caahep.org. Accreditation Review Council on Education in Surgical Technology and Surgical Assisting: 19751 East Mainstreet, Suite #339, Parker, CO 80138, Phone: (303) 694 - 9262, Email: info@arcstsa.org

General Education Courses (22-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1001 or higher *Credits: 3-4* (MATH 1100 Recommended) (Pending Spring 2023 Shared Governance Approval)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

PSY 1011 - General Psychology I *Credits: 3*

ENG 1020 - Composition II and Literature *Credits: 3*

OR ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40 credits)

SUR 1109 - Microbiology for Surgical Technologists *Credits: 2*

SUR 1110 - Operating Room Techniques *Credits: 4*

SUR 1090 - Operating Room Skills Seminar *Credits: 4*

SUR 2094 - Clinical Surgical Experience I *Credits: 6*

SUR 2194 - Clinical Surgical Experience II *Credits: 6*

SUR 2213 - Surgical Procedures I *Credits: 3*

SUR 2214 - Surgical Procedures II *Credits: 3*

SUR 2215 - Surgical Technology Pharmacology *Credits: 3*

SUR 2290 - Advanced Seminar for Surgical Technologist *Credits: 3*

HIMT 1000 - Medical Terminology *Credits: 3*

OR MDAS 1025 - Medical Terminology for Clinical and Administrative Professions *Credits: 3*

OR BOT 1800 - Medical Terminology and Anatomy *Credits: 3*

CSA 1110 - Introduction to Software Applications *Credits: 3*

Total Credits: 62-63

Surgical Technology: Manchester Campus- Hartford Hospital, AS (SURG-AS-HH)

The purpose of the Manchester campus- Hartford Hospital Surgical Technology program is to educate individuals in surgical technology. The goal of this program is to provide students with the opportunity to develop the skills and knowledge necessary to gain employment as entry-level surgical technologists and become contributing members of the health care team in accordance with the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA) required minimum expectation statement for surgical technology programs "to prepare competent, entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains." This will be accomplished by preparing competent graduates through didactic coursework in the cognitive learning domain and through clinical scrub experience in the psychomotor and affective learning domains. The program goal meets or exceeds the criteria set forth in the current Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for the Accreditation of Educational Programs in Surgical Technology.

The consortium agreement, between the CT State Community College Manchester Campus (MC) and Hartford Hospital, was developed in response to both a community and workforce need in Connecticut for surgical technologists. A consortium agreement is unique as it mandates the separation of curriculum with General Education Core course education and Core ST curriculum courses as required by ARC/STSA accreditation standards and guidelines. This consortium supports the Association of Surgical Technologist (AST) statements on the Associate Degree model for entry-level Certified Surgical Technologist (CST) with first year prerequisite courses taken prior to acceptance into the ST program. This includes the CT State Community College General Education component as well as science courses, including Anatomy and Physiology I and II, as baseline knowledge recommended by the AST Surgical Technology curriculum. AST's statement... "Logically, this prerequisite year could be developed into a sequence of courses that provide foundational preparation for sophomore surgical technology courses and comprehensive coverage of each state's general education requirements" ...aligns with the MC Hartford Hospital ST Program curriculum sequencing. This consortium agreement denotes separate and shared responsibilities for both entities involved in the education of surgical technology students. General education core courses instruction is the sole responsibility of CT State Community College faculty and core ST curriculum course instruction is provided on the Hartford Hospital campus and is the sole responsibility of Hartford Hospital qualified Surgical Technology Instructors. CT State Community College provides academic support services i.e., admission, financial aid, transcript evaluation and grants the AS degree. Hartford Hospital provides and supports all surgical technology student lab spaces, lab materials and lab instruction with all ST instructors and the consortium director being Hartford Hospital employees as per the consortium agreement. ST students perform clinical rotations throughout the Hartford Healthcare System (HHC) in the state of Connecticut.

Learning Outcomes:

Upon successful completion of all the MCC Hartford Hospital Surgical Technology program requirements, the graduate will be prepared to:

- Incorporate the theoretical knowledge of the basic sciences, medical terminology, pharmacology and pathophysiology into clinical practice as a qualified, entry level surgical technologist.
- Demonstrate proficient practice in aseptic technique, proper use and care of instrumentation, clinical judgments with anticipation of the surgeon and surgical case needs.
- Demonstrate a comprehensive understanding of Health Insurance Portability and Accountability Act (HIPAA), AST standards, principles and scope of practice, ethical, legal, moral and cultural diversity of the patient population in the perioperative setting.
- Demonstrate proficient communication skills to effectively work as a member of the surgical team and professionally interact with patients and the healthcare community.
- Demonstrate a strong surgical conscience, self-discipline, professional work ethic and longstanding commitment to personal and educational growth.
- Sit for the National Board of Surgical Technology of Surgical Assisting (NBSTSA) CST National Certification Exam.

The MCC Hartford Hospital Surgical Technology Program at Manchester Community College is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). The program is accredited by the: Commission on Accreditation of Allied Health Education Programs (CAAHEP), www.caahep.org, 9355-113th St., N, #7709, Seminole, FL 33775. Phone: (727) 210-2350. Fax: (727) 210-2354. Email: mail@caahep.org. Accreditation Review Council on Education in Surgical Technology and Surgical Assisting: 19751 East Main Street, Suite #339, Parker, CO 80138, Phone: (303) 694 - 9262, Email: info@arcstsa.org

Application to the Program

Consideration for admission to the MC Hartford Hospital Surgical Technology program follows a sequential application and selective admission process. The Surgical Technology applicant may not advance in the process if the prior step has not been completed.

1. Complete the following required non-core Surgical Technology courses (34 credits) or their equivalent, if transferring, and demonstrate a minimum GPA of 2.5 in all courses completed:
 - BIO 2111 Anatomy & Physiology I
 - BIO 2112 Anatomy & Physiology II
 - BIO 2350 Microbiology
 - CCS 1001 - College & Career Success
 - COMM 1302 Interpersonal Communication or COMM 1301 Public Speaking
 - ENG 1010 Composition
 - MATH 1001 - Quantitative Literacy
 - Any required pre-requisite course for BIO 2111 that is vetted in Scientific Reasoning or Scientific Knowledge and Understanding
 - Elective: Any one course from General Education category - Social/Behavioral Science
 - Elective: Any one course from General Education category - Arts and Humanities
2. Attend a virtual and/or in person Surgical Technology information session before the application deadline
3. Submit the CT State Community College General Application for Admission and choose 'General Studies' for your major. [Please note you will automatically be admitted to the college once required supplemental items are provided but must apply for the Surgical Technology Program separately (step 5).
4. Submit official copies of all transcripts. Electronic transcripts are encouraged, but paper copies are acceptable.
 - For electronic transcripts, visit your previous institutions' website for instructions on how to order online transcripts.
 - To mail a transcript, please send it to CT State Community College
 - Current CT State Community College students may submit unofficial transcripts to the Hartford Hospital Surgical Technology Program Director
5. Submit the online Surgical Technology Application.
6. Sit for ST program entrance literacy exam. Demonstrate a minimum score of 70 percent on ST program entrance exam to advance to step 7.
7. Attend an in-person interview with an oral and written component. After completing steps 1-7, the Surgical Technology Interview Committee will offer admission to ST applicants based on final rubric score and number of HHC facility scrub slots available. Students offered fall admission to the ST program are required to complete steps 8-10.
8. Attend Surgical Technology program orientation (scheduled for summer of admission year.)
9. Submit and pass a background check (paperwork provided at Surgical Technology program orientation).
10. Demonstrate that program's physical standards are met through submission of current physical examination/immunization records (form provided at Surgical Technology program orientation).
11. Wear Surgical Technology program scrubs and appropriate personal protective equipment (as designated in Program Handbook) while on HHC campus and facilities.
12. Achieve/maintain a minimum grade of 2.5 GPA throughout the course to maintain program enrollment.

General Education Courses (34 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1111 - Cell Biology with Organ Systems *Credits: 4*

OR BIO 1210 - General Biology I *Credits: 4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

COMM 1302 - Interpersonal Communication *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2112 - Anatomy & Physiology II *Credits: 4*

BIO 2350 - Microbiology *Credits: 4*

Program Courses (28 credits) - Hartford Hospital Campus

- SURH 2010 - Surgical Technology Principles and Practices *Credits: 4*
- SURH 2020 - Surgical Technology Peri-Operative Practice *Credits: 4*
- SURH 2050 - Medical Terminology for Surgical Technologists *Credits: 2*
- SURH 2190 - Surgical Technologist Role and Responsibilities *Credits: 2*
- SURH 2194 - Surgical Technologist Level I Skills *Credits: 2*
- SURH 2210 - Pathophysiology/Pharmacology for the Surgical Technologist *Credits: 3*
- SURH 2294 - Surgical Technologist Level II Skills *Credits: 4*
- SURH 2394 - Surgical Technologist Level III Skills *Credits: 4*
- SURH 2290 - The Surgical Technologist Professional *Credits: 3*

Total Credits: 62

Technology Studies, AS (TCHS-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

In addition to this degree, the Technology Studies program offers the following options: (*see following pages*)

- Technology Studies: Advanced Manufacturing Machine Technology Option 1 (AMT1-AS-COT)
- Technology Studies: Advanced Manufacturing Machine Technology Option 2 (AMT2-AS-COT)
- Technology Studies: Artificial Intelligence, AS (ARIN-AS-COT)
- Technology Studies: Biomolecular Sciences, AS (BIMO-AS-COT)
- Technology Studies: Computer Engineering Technology, AS (CETC-AS-COT)
- Technology Studies: Data Science, AS (DTAS-AS-COT)
- Technology Studies: Energy Management, AS (ENMG-AS-COT)
- Technology Studies: Engineering Technology, AS (ENTE-AS-COT)
- Technology Studies: Environmental Science, AS (ENVS-AS-COT)
- Technology Studies: Industrial Technology, AS (INTC-AS-COT)
- Technology Studies: Manufacturing Engineering Technology, AS (MENT-AS-COT)
- Technology Studies: Mechatronics Automation Technician (MTCH-AS-COT)
- Technology Studies: Precision Manufacturing, AS (PRMN-AS-COT)
- Technology Studies: Robotics and Mechatronics Technician (RMTH-AS-COT)
- Technology Studies: Technology and Engineering Education, AS (TEED-AS-COT)
- Technology Studies: Welding & Fabrication (WFBT-AS-COT)

The Technology Studies A.S. Degree transfers to Central Connecticut State University and the University of Hartford.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Specialization Courses (27-36 credits)

Students will choose courses based on the specialization they choose.

Total Credits: 60-70

Technology Studies: Advanced Manufacturing Machine Technology Certificate Option 1 (AMC1-CC-COT)

The Advanced Manufacturing Machine Technology certificate provides students with the opportunity to train in a hands-on manufacturing environment. Throughout the duration of their training, students will develop an advanced level of skillsets that will lead directly into a career in the vast world of manufacturing, such as an entry level machinist or a quality inspector. The programs were developed in response to Connecticut manufacturers' needs for a highly skilled workforce to match the needs of the regional industry sector partnerships around the state of Connecticut that graduates of the program are placed with. The student who completes the Advanced Manufacturing Machine Technology certificate program has a choice to pursue employment or to matriculate in an associate degree program. To earn this certificate, you will choose nine directed electives based on regional industry needs for specific courses.

Quinebaug Valley Community College's Advanced Manufacturing Technology Center is accredited by the National Institute for Metalworking Skills (NIMS). Housatonic, Manchester, Middlesex, and Naugatuck Valley are in the process of applying for NIMS accreditation.

Learning Outcomes:

- Apply mathematical and technological principles to solve triangles and other geometrical problems
- Understand and follow basic shop safety guidelines and protocol
- Demonstrate the use of all hand tools used in basic layout procedures
- Accurately read and interpret views and information on engineered drawings and blueprints
- Demonstrate the use and understanding of all basic semi-precision and precision measuring tools to determine acceptability of manufactured parts to blueprint specifications
- Demonstrate operations of manual lathe to turn, face, part, groove, drill, bore, tap and single point thread
- Demonstrate operations in a knee mill to square parts, bore holes, drill, tap, countersink and counterbore
- Demonstrate operation of machine tools such as drill press, bench grinders, surface grinders, sawing machines
- Program and operate CNC mills and lathes with conversational, G&M code to fabricate parts to blueprint specifications
- Exhibit competency in two- and three-dimensional CAD as it is applied to parts and geometries to create solid models and assemblies
- Understand basic principles in quality management and lean continuous improvement practices

Required Courses

MFG 1405 - Manufacturing Math *Credits: 3*

MFG 1415 - Safety in the Workplace *Credits: 1*

MFG 1424 - Blueprint Reading 1 *Credits: 3*

OR EGR 1120 - Engineering Drawing Specs *Credits: 3*

MFG 1453 - Benchwork *Credits: 2*

MFG 1477 - Machine Technology Fundamentals *Credits: 4*

MFG 1478 - CNC Fundamentals *Credits: 3*

MFG 1479 - Career Awareness for Manufacturing *Credits: 1*

MFG 2456 - Advanced CNC *Credits: 3*

MFG 2477 - Advanced Machine Technology *Credits: 4*

Choose 3 Directed Electives (9 credits)

- MFG 1010 - Parametric Design (SolidWorks) *Credits: 3*
- MFG 1414 - Quality & Lean Principles *Credits: 3*
- **OR** MFG 1413 - Principles of Quality Control *Credits: 3*
- MFG 1420 - Metrology *Credits: 3*
- MFG 1425 - Blueprint Reading 2 with GD & T *Credits: 3*
- MFG 2405 - Principles of CNC with Mastercam *Credits: 3*
- MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*
- MFG 1400 - Advanced Metrology with CMM (Computerized Measurement Machine) *Credits: 3*
- MFG 1409 - Introduction to MasterCAM *Credits: 3*

Total Credits: 33

Technology Studies: Advanced Manufacturing Machine Technology Certificate Option 2 (AMC2-CC-COT)

The Advanced Manufacturing Machine Technology certificate provides students with the opportunity to train in a hands-on manufacturing environment. Throughout the duration of their training, students will develop an advanced level of skillsets that will lead directly into a career in the vast world of manufacturing, such as an entry level machinist or a quality inspector. The programs were developed in response to Connecticut manufacturers' needs for a highly skilled workforce to match the needs of the regional industry sector partnerships around the state of Connecticut that graduates of the program are placed with. The student who completes the Advanced Manufacturing Machine Technology certificate program has a choice to pursue employment or to matriculate in an associate degree program. To earn this certificate, you will choose nine directed electives based on regional industry needs for specific courses.

Asnuntuck Community College's Advanced Manufacturing Technology Center is accredited by the National Institute for Metalworking Skills (NIMS). Housatonic, Manchester, Middlesex, and Naugatuck Valley are in the process of applying for NIMS accreditation.

Learning Outcomes:

- Read and interpret engineering drawings/blueprints (mechanical)
- Understand the types of fits and mating parts
- Be able to interpret geometric dimensioning and tolerancing requirements applied to engineering drawings
- Exhibit competency in machining on a manual lathe
- Exhibit competency in machining on manual milling machine
- Exhibit competency in two-dimensional and three-dimensional CAD as applied to mechanical parts and geometries
- Exhibit competency in creating blueprints from solid models generated through CAD
- Read and write G&M codes for CNC programming
- Setup 3 axis CNC Machining and 2 axis Turning Centers
- Be able to load and execute post processed CNC programs onto FANUC controlled CNC Machining and Turning Centers
- Understand metrology and its applications in quality control and production
- Understand basic principles of quality control and lean manufacturing

Required Courses

MFG 1405 - Manufacturing Math *Credits: 3*
 MFG 1415 - Safety in the Workplace *Credits: 1*
 MFG 1424 - Blueprint Reading 1 *Credits: 3*
OR EGR 1120 - Engineering Drawing Specs *Credits: 3*
 MFG 1453 - Benchwork *Credits: 2*
 MFG 1477 - Machine Technology Fundamentals *Credits: 4*
 MFG 1478 - CNC Fundamentals *Credits: 3*
 MFG 1479 - Career Awareness for Manufacturing *Credits: 1*
 MFG 2456 - Advanced CNC *Credits: 3*
 MFG 2477 - Advanced Machine Technology *Credits: 4*
 Choose 4 Directed Electives (12 credits)

- MFG 1010 - Parametric Design (SolidWorks) *Credits: 3*
- **OR** CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*
- MFG 1414 - Quality & Lean Principles *Credits: 3*
- **OR** MFG 1413 - Principles of Quality Control *Credits: 3*
- MFG 1420 - Metrology *Credits: 3*
- MFG 1425 - Blueprint Reading 2 with GD & T *Credits: 3*
- MFG 2405 - Principles of CNC with Mastercam *Credits: 3*
- MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*
- MFG 1400 - Advanced Metrology with CMM (Computerized Measurement Machine) *Credits: 3*
- MFG 1409 - Introduction to MasterCAM *Credits: 3*

Total Credits: 35

Technology Studies: Advanced Manufacturing Machine Technology Option 1 (AMT1-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

This program has an embedded Advanced Manufacturing Machine Technology Certificate.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition Credits: 3
 MATH 1610 - Precalculus Credits: 4
 ART Elective Credits: 3
 CHEM 1110 - Concepts of Chemistry Credits: 4
 OR CHEM 1210 - General Chemistry I Credits: 4
 Elective HISX - Historical Knowledge Course Credits: 3
 OR Elective SBSX course in ECON Credits: 3
 ENG 1080 - Composition II: Technical Writing and Presentations Credits: 3
 OR COMM 1301 - Public Speaking Credits: 3
 CCS 1001 - College & Career Success Credits: 3

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I Credits: 4
 OR PHYS 2201 - Calculus-Based Physics I Credits: 4
 Elective BHEL - Behavioral Science Elective Credits: 3 choose an ANTH, PSY or SOC course
 MATH 1200 - Statistics I Credits: 3
 OR MATH 1201 - Statistics I with Computer Applications Credits: 4

Machine Technology Option #1 Courses (32 credits)

MFG 1405 - Manufacturing Math Credits: 3
 MFG 1415 - Safety in the Workplace Credits: 1
 MFG 1424 - Blueprint Reading 1 Credits: 3
 OR EGR 1120 - Engineering Drawing Specs Credits: 3
 MFG 1453 - Benchwork Credits: 2
 MFG 1477 - Machine Technology Fundamentals Credits: 4
 MFG 1478 - CNC Fundamentals Credits: 3
 MFG 2456 - Advanced CNC Credits: 3
 MFG 2477 - Advanced Machine Technology Credits: 4
 Choose 3 Directed Electives (9 Credits)

- MFG 1010 - Parametric Design (SolidWorks) Credits: 3
- MFG 1414 - Quality & Lean Principles Credits: 3
- MFG 1420 - Metrology Credits: 3
- MFG 1425 - Blueprint Reading 2 with GD & T Credits: 3
- MFG 2405 - Principles of CNC with Mastercam Credits: 3
- MFG 1400 - Advanced Metrology with CMM (Computerized Measurement Machine) Credits: 3
- MFG 1409 - Introduction to MasterCAM Credits: 3
- MFG 2439 - Geometric Dimension & Tolerancing (GD&T) Credits: 3

Total Credits: 65-66

Technology Studies: Advanced Manufacturing Machine Technology Option 2 (AMT2-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

This program has an embedded Advanced Manufacturing Machine Technology Certificate.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Manufacturing Technology Option #2 (32 Credits)

MFG 1405 - Manufacturing Math *Credits: 3*

MFG 1415 - Safety in the Workplace *Credits: 1*

MFG 1424 - Blueprint Reading 1 *Credits: 3*

OR EGR 1120 - Engineering Drawing Specs *Credits: 3*

MFG 1453 - Benchwork *Credits: 2*

MFG 2477 - Advanced Machine Technology *Credits: 4*

MFG 1478 - CNC Fundamentals *Credits: 3*

MFG 2456 - Advanced CNC *Credits: 3*

MFG 1477 - Machine Technology Fundamentals *Credits: 4*

Choose 4 Directed Electives (12 Credits)

- MFG 1010 - Parametric Design (SolidWorks) *Credits: 3*
- **OR** CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*
- MFG 1414 - Quality & Lean Principles *Credits: 3*
- MFG 1420 - Metrology *Credits: 3*
- MFG 1425 - Blueprint Reading 2 with GD & T *Credits: 3*
- MFG 2405 - Principles of CNC with Mastercam *Credits: 3*
- MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*
- MFG 1400 - Advanced Metrology with CMM (Computerized Measurement Machine) *Credits: 3*
- MFG 1409 - Introduction to MasterCAM *Credits: 3*

Total Credits: 69-70

Technology Studies: Architectural CAD Certificate (CADA-CC-COT)

The Architectural Computer-Aided Design (CAD) certificate program provides students with career-based training in architectural design using computer-aided drafting/design technology. To provide the necessary technical base, the program also includes architectural blueprint reading. Basic training in computer technology is included to prepare students for the two-dimensional, three-dimensional, and solid-modeling computer-aided design technology in the program. CAD technology in the core of the certificate program is comprised of 2D AutoCAD®, REVIT® solid modeling, and rendering technology.

Learning Outcomes:

- Read and analyze building blueprints including floor, mechanical, and electrical plans
- Annotate construction documents according to currently acceptable standards
- Exhibit competency in turning the engineering concept drawings into CAD models.
- Exhibit competency in two-dimensional, three-dimensional, and solid-modeling skills as applied to complex computer-aided design technology.
- Render three-dimensional models for aesthetic representation
- Cite and identify technical drafting practices, procedures, and processes according to current ANSI/ISO standards
- Use currently available object-based CAD technology for design and documentation of architectural models
- Create mass models from architectural sketches

Required Courses

CTC 1006 - Blueprint Reading for Construction *Credits: 3*

CAD 1330 - 2D CAD (AutoCAD) *Credits: 3*

CAD 2204 - CAD 3D Architectural *Credits: 3*

CAD 2520 - Architectural Design & Modeling *Credits: 3*

Total Credits: 12

Technology Studies: Artificial Intelligence, AS (ARIN-AS-COT)

The Technology Studies Artificial Intelligence Option associate degree program prepares students to develop and apply artificial intelligence (AI) solutions to problems in the fields of predictive analytics, natural language processing, and computer vision. The program develops students' knowledge and skills in computer programming, machine learning, mathematics and statistics, and enables students to use AI to enhance human capabilities in the fields of business. The program prepares students to transfer to a baccalaureate program in computer science or data science, or to acquire an entry level position in fields that utilize artificial intelligence, such as business, technology, healthcare, industrial and manufacturing industries.

Tech Studies Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

In addition to meeting the Technical Studies outcomes students successfully completing this option will:

- Transition seamlessly into a Bachelor of Science Degree Program in Computer Science, Artificial Intelligence, or Technology Management.
- Apply appropriate mathematical and scientific principles to Artificial Intelligence applications.
- Demonstrate proficiency in developing and applying machine learning principles and algorithms to solve problems in business applications.
- Apply knowledge and skills to develop, interpret, and apply natural language processing and computer vision algorithms.
- Demonstrate the ability to assist in research, development, design, production, testing and various other functions associated with Artificial Intelligence.
- Demonstrate a good understanding of Artificial Intelligence principles/concepts.
- Demonstrate a good understanding of mathematical and computer programming concepts.
- Demonstrate the ability to think through a problem in a logical manner.
- Organize and carry through to conclusion the solution to a problem.
- Demonstrate good communication skills.
- Demonstrate teamwork skills.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Artificial Intelligence Courses (27-28 credits)

CSC 1203 - Python Fundamentals *Credits: 3*

DTS 2205 - Introduction to Artificial Intelligence *Credits: 3*

DTS 2220 - Introduction to Machine Learning *Credits: 3*

MATH 2500 - Calculus for Business and Social Science *Credits: 3*

OR MATH 2600 - Calculus I *Credits: 4*

DTS 2230 - Natural Language Processing *Credits: 3*

DTS 2240 - Artificial Intelligence for Computer Vision *Credits: 3*

DTS 2290 - Capstone Research *Credits: 3*

CIS, CSC, CST, or CYS Elective *Credits: 3*

Specialization Elective *Credits: 3*

Total Credits: 60-62

Technology Studies: Biomolecular Sciences, AS (BIMO-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

The objective of the Technology Studies: Biomolecular Sciences pathway is to prepare students for transfer to a baccalaureate degree in Biomolecular Sciences at a Central Connecticut State University as well as for entry-level laboratory technician positions. Students who earn an associate's degree will be able to:

- Transfer into a bachelor's degree program in biomolecular science.
- Transfer into pre-professional programs such as pre-vet or pre-med.
- Pursue careers as laboratory technicians in academic or industrial settings.

In addition to meeting the Technology Studies outcomes, graduates should be able to:

- Demonstrate basic laboratory skills and working knowledge of safety procedures.
- Understand and be able to apply the scientific method of inquiry.
- Demonstrate a basic understanding of experimental design and analysis.
- Explain basic cellular and organism principles.
- Demonstrate an understanding of basic chemical concepts.
- Perform biotechnology techniques including:
 - Gel electrophoresis
 - Restriction digests
 - Bacterial transformation
 - Polymerase Chain Reaction
 - DNA fingerprinting
 - Annotate genes
- Use a light microscope to view and interpret slides.
- Properly prepare slides for microbiological examination.
- Perform simple and differential staining techniques including Gram stains.
- Demonstrate aseptic techniques for the handling of microorganisms and instruments, including:
 - Sterilization and maintenance of sterile transfer instruments
 - Perform aseptic transfer
 - Obtain samples.
- Use appropriate microbes in a sample using serial dilution techniques.
- Estimate the number of microbes in a sample using serial dilution techniques.
- Use standard microbiology laboratory equipment correctly

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Biomolecular Sciences Courses (30-31 credits)

BIO 1210 - General Biology I *Credits: 4*

BIO 1220 - General Biology II *Credits: 4*

BIO 2111 - Anatomy & Physiology I *Credits: 4*

BIO 2350 - Microbiology *Credits: 4*

BIO 2600 - Principles of Genetics *Credits: 3*

OR BIO 2630 - Molecular Genetics *Credits: 4*

CHEM 1220 - General Chemistry II *Credits: 4*

PHYS 1202 - General Physics II *Credits: 4*

OR PHYS 2202 - Calculus-Based Physics II *Credits: 4*

Specialization Elective *Credits: 3* Choose from BIO, CAD, CHEM, CSC, CST, DTS, EETA, EGR, GEOG, MATH, MECH, MFG, OCEN, PHYS, TECH

Total Credits: 63-65

Technology Studies: CAD User Certificate (CADU-CC-COT)

The Computer-Aided Drafting (CAD) User certificate program provides students with the basic training in creating engineering drawing and 3D models of parts. The program uses AutoCAD® and Solidworks® software to provide the students with the basic training they need in the field of computer aided drafting. The program is a steppingstone to seek lower-level mechanical drafting jobs or to continue to obtain Mechanical CAD certificate.

Learning Outcomes:

- Create basic engineering drawings
- Create basic 3D models of parts and assemblies

Required Courses

CAD 1330 - 2D CAD (AutoCAD) *Credits: 3*

CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*

Total Credits: 6

Technology Studies: Computer Engineering Technology, AS (CETC-AS-COT)

The Computer Information Technology (CIT) degree program is designed to provide students with a well-rounded technical foundation and offer options in which they can concentrate their skills in either software development or networking. For students who enter the program without a firm grasp on a career direction, the program's core gives a broad range of subject areas that the students can experience before formalizing their concentration.

In addition to meeting the Technology Studies outcomes students in this option will:

- Develop the ability to analyze, develop, and design code through knowledge and comprehension of information systems concepts and skills.
- Develop the strategic and critical thinking skills through development of the ability to identify, gather, measure summarize, verify, analyze, design, develop and test programs and hardware design.
- Develop the ability to identify and solve unstructured problems in unfamiliar setting and exercise judgment based on facts.
- Develop communication through development of proficiency in oral/written/electronic communication skills and the development of the ability to explain programming concepts and code and related technical issues to others.
- Develop leadership skill through the development of the ability to work collaboratively with a diverse team, including organization, control, and assessment of group-based work, and provide leadership when appropriate.
- Develop the skills to apply current technology, analyze business problems, and design and develop software and solve technical issues; apply word processing, spreadsheet, database, presentation, email, and collaborative software skills in a professional context.
- Develop the skills to communicate using network technologies, access information via internet, and understand information integrity and security issues

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Computer Engineering Technology Courses (31 credits)

MATH 2600 - Calculus I *Credits: 4*

EGR 1110 - Introduction to Engineering *Credits: 3*

MATH 2610 - Calculus II *Credits: 4*

OR EGR 2221 - Introduction to Electrical Circuit Analysis *Credits: 4*

CIS 1001 - Introduction to Computers *Credits: 3*

CSC 1211 - Java I *Credits: 3*

CSC 2212 - Java II *Credits: 3*

PHYS 1202 - General Physics II *Credits: 4*

OR PHYS 2202 - Calculus-Based Physics II *Credits: 4*

CST 1111 - Computer Hardware *Credits: 4*

CST 1121 - Networking I *Credits: 3*

Total Credits: 64-65

Technology Studies: Data Science Certificate (DTSC-CC-COT)

The Certificate in Data Science provides exposure to key elements of data science including data structures and data sources, programming languages, statistical principles, computing and analytics, data management, machine learning tools, and data science applications. This certificate needs to be paired with a transfer associates degree in any field (recommended fields include mathematics, applied sciences, computer science, computer programming, business, marketing, web design).

Learning Outcomes:

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

- Master key facets of data investigation, including data wrangling, cleaning, sampling, management, exploratory analysis, regression and classification, prediction, and data communication
- Implement foundational concepts of data computation, such as data structure, algorithms, simulation, and analysis.
- Utilize various technologies to organize, analyze, explore, and visualize data
- Execute data organization, exploration, and develop proficiency in the programming language of R
- Apply advanced statistical techniques
- Understand machine learning models and their applications

Required Courses

MATH 1200 - Statistics I *Credits: 3*

MATH 2200 - Statistics II *Credits: 3*

DTS 2201 - Programming in Data Science *Credits: 3*

DTS 2220 - Introduction to Machine Learning *Credits: 3*

CSA 1111 - Spreadsheet Applications *Credits: 3*

Directed Elective *Credits: 3*

Total Credits: 18

Technology Studies: Data Science, AS (DTAS-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

The Technology Studies: Data Science Option associate degree program prepares students primarily to transfer to complete a B.S. degree in Data Science or Technology Management. Graduates will receive a background in mathematics, science, data literacy, programming, and general education courses for transfer into a four-year program.

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

- Transition seamlessly into a Bachelor of Science Degree Program in Data Science or Technology Management
- Apply appropriate mathematical and scientific principles to Data Science applications.
- Demonstrate proficiency in technical fundamentals to analyze and resolve technology problems.
- Apply knowledge and skills to develop, interpret, and select appropriate technological processes.
- Demonstrate the ability to assist in research, development, design, production, testing and various other functions associated with Data Science.
- Demonstrate a good understanding of Data Science principles/concepts.
- Demonstrate a good understanding of mathematical concepts.
- Demonstrate the ability to think through a problem in a logical manner.
- Organize and carry through to conclusion the solution to a problem.
- Demonstrate good communication skills.
- Demonstrate teamwork skills.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Data Science Courses (31-35 credits)

DTS 2290 - Capstone Research *Credits: 3*

Math or Programming or Computer Applications Elective *Credits: 3-4*

MATH 2600 - Calculus I *Credits: 4*

MATH 2200 - Statistics II *Credits: 3*

DTS 2201 - Programming in Data Science *Credits: 3*

OR DTS 2203 - Elements of Data Science *Credits: 4*

DTS 2220 - Introduction to Machine Learning *Credits: 3*

Math or Programming Elective *Credits: 3-4*

Math or Programming Elective *Credits: 3-4*

Specialization Electives *Credits: 6*

Total Credits: 64-69

Technology Studies: Energy Management Certificate (ENMC-CC-COT)

The Certificate in Energy Management offers students a hands-on curriculum utilizing the college's facilities as a "living laboratory" to provide a career path that aligns with commercial and/or industrial energy management practices. A traditional Engineering job requires a 4-year degree. The certificate folds seamlessly into the 2-year Tech Studies, Energy Management Option Associate Degree and allows students to complete the required coursework needed to fulfill the duties and responsibilities of an "Energy Manager", while still maintaining a level of General Education coursework that they could transfer to a 4-year college should that student desire the opportunity to expand their work to a 4-year Bachelor's Degree. This certificate path is more economical for the students of Connecticut to obtain the needed information to be successful in the field, yet they can continue their education at the university level if desired.

Learning Outcomes:

- Demonstrate a basic understanding of energy, its measurement and varied approaches to conserving/saving.
- Demonstrate a basic understanding of commercial building systems and be able to explain their operation, interactions, and their energy use.
- Perform energy analysis on potential conservation measures in commercial/industrial settings, and incorporate both conceptual and technical understanding in their project reports.
- Demonstrate an increased proficiency with spreadsheets, charts, and graphs in Excel.
- Practice technical writing and oral skills and will create technical documents.

The Energy Management certificate provides students with a choice of "focus" in either Lighting or Commercial HVAC. These areas are identified as two significant areas of energy use in commercial/industrial structures. Students choose based on interest, employment prospects, or employer direction. Through the degree, students will achieve credits in both areas. The choice in the certificate allows for a direct path and employability. This certificate is "stackable" into the more extensive Technology Studies: Energy Management option AS degree with Tunxis. Each course in the certificate is either part of the degree or serves as a pre-requisite to move students forward. Using the NRG*133 pathway option in the certificate could allow for WIOA eligibility as the certificate could then be completed in 2 semesters. This certificate and the degree are funded with a grant from the CT Department of Energy and Environmental Protection. Those funds allowed Tunxis to create a scholarship in which students are direct beneficiaries of the funds we receive. The scholarship allows students to earn all required credits for the certificate and/or degree at no cost (tuition, fees, books, etc.) for those who qualify. The NRG*133 course prepares students to sit for an industry-standard credentialing exam through the Illuminating Engineering Society (IES). Additional industry-standard credentials are frequently considered/reviewed.

Required Courses

NRG 1101 - Introduction. to Energy & Systems *Credits: 3*
 MATH 1010 - Intermediate Algebra *Credits: 3*
 PHYS 1201 - General Physics I *Credits: 4*
 NRG 1123 - Energy Efficiency Methods *Credits: 3*
 NRG 1122 - Commercial HVAC Systems & Analysis *Credits: 3*
 OR NRG 1133 - Lighting Fundamentals & Appl. *Credits: 3*

Total Credits: 16

Technology Studies: Energy Management, AS (ENMG-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

Technology Studies: Energy Management offers students a hands-on curriculum utilizing the college's facilities as a "living laboratory" to provide a career path that aligns with commercial and/or industrial energy management practices.

In addition to meeting the Technology Studies outcomes students in this option will:

- Demonstrate a basic understanding of energy, its measurement and varied approaches to conserving/saving.
- Demonstrate a basic understanding of commercial building systems and be able to explain their operation, interactions, and their energy use.
- Perform energy analysis on potential conservation measures in commercial/industrial settings, and incorporate both conceptual and technical understanding in their project reports.
- Demonstrate an increased proficiency with spreadsheets, charts, and graphs in Excel.
- Practice technical writing and oral skills and will create technical documents.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Energy Management Courses (27 credits)

CAD 1330 - 2D CAD (AutoCAD) *Credits: 3*

NRG 1101 - Introduction. to Energy & Systems *Credits: 3*

NRG 1122 - Commercial HVAC Systems & Analysis *Credits: 3*

NRG 1123 - Energy Efficiency Methods *Credits: 3*

NRG 1130 - Applied Renewable Energy Systems *Credits: 3*

NRG 1132 - Industrial Energy Systems *Credits: 3*

NRG 1133 - Lighting Fundamentals & Appl. *Credits: 3*

NRG 2241 - Commercial Energy Use Analysis & Simulations *Credits: 3*

NRG 2242 - Energy Accounting *Credits: 3*

Total Credits: 60-61

Technology Studies: Engineering Technology, AS (ENTE-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

The Technology Studies - Engineering Technology Option associate degree program prepares students primarily to transfer to complete a B.S. degree in civil, mechanical, manufacturing, composite, or computer engineering technology. Graduates will receive a background in mathematics, science, and general education courses for transfer into a four-year program. Careers in this field include jobs in quality control of industrial products, electrical system testing and diagnostics, computer modeling of essential infrastructure, robotic technology, and remediation of environmental hazards. A grade average of 'B' with no grade less than 'C', and completion of the full program is required for continuation as a junior in CCSU's School of Technology or at Charter Oak.

In addition to meeting the Technical Studies outcomes students successfully completing this option will:

- Transition seamlessly into a Bachelor of Science Degree Program in Engineering Technology with junior level status in the receiving institution as part of the Engineering Technology Pathway Program.
- Apply appropriate mathematical and scientific principles to engineering and technology applications.
- Analyze and resolve technology problems.
- Apply knowledge and skills to develop, interpret, and select appropriate technological processes.
- Assist in research, development, design, production, testing and various other functions associated with engineering.
- Identify and apply engineering principles/ concepts.
- Apply mathematical concepts.
- Demonstrate the ability to think through a problem in a logical manner.
- Organize and carry through to conclusion the solution to a problem.
- Apply good communication skills.
- Work in teams

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Engineering Technology Courses (30 credits)

Choose a CAD Elective or Technical Drafting *Credits: 3*

PHYS 1202 - General Physics II *Credits: 4*

OR PHYS 2202 - Calculus-Based Physics II *Credits: 4*

MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*

CHEM 1220 - General Chemistry II *Credits: 4*

OR EGR 2221 - Introduction to Electrical Circuit Analysis *Credits: 4*

OR EGR 2212 - Engineering Dynamics *Credits: 3*

OR EETA 2052 - Digital Electronics *Credits: 4*

MATH 2600 - Calculus I *Credits: 4*

MATH 2610 - Calculus II *Credits: 4*

EGR 2211 - Engineering Statics *Credits: 3*

Choose 2 specialization electives from these disciplines: BIO, CAD, CHEM, CSC, CST, DAT, EET, EGR, ENVS, GIS, GEOL, MATH, MECH, MFG, OCEN, PHYS, or TECH

Total Credits: 63-64

Technology Studies: Environmental Science, AS (ENVS-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Program Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

The Technology Studies: Environmental Science degree prepares individuals for careers in Connecticut's growing environmental science industry. In addition to the outcomes listed for the Technology Studies degree, students who complete the Environmental Science Option will:

- Develop an understanding of the scientific basis for issues affecting the environment and their impact on society.
- Understand and be skilled at collecting, analyzing and presenting scientific data by various means including up-to-date technologies.
- Be able to use the scientific method for problem solving in biology, chemistry, physics and environmental sciences, and be able to use this skill to address issues related to the environment.
- Research and assess the accuracy of appropriate information sources, involving both print literature and electronic sources including online databases and publications.
- Communicate knowledge and understanding of environmental sciences and related societal issues in appropriate written, oral and mathematical means.
- Demonstrate interrelationships and connections with other subject areas associated with a college-level education.
- Use a wide array of knowledge, principles and skills acquired in laboratory, field and lecture setting for use in transferring to baccalaureate degree program or for use in seeking further training toward a technical degree.
- Develop skills in biology, ecology, and environmental chemistry.
- Develop an understanding of an ability to carry out microbiological testing of drinking and waste sewage.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Environmental Science Courses (29 credits)

BIO 1220 - General Biology II *Credits: 4*

ECON 1002 - Principles of Microeconomics *Credits: 3*

PHIL 1101 - Ethics *Credits: 3*

ENV 1010 - Introduction to Environmental Science *Credits: 3*

AND ENV 1010L - Introduction to Environmental Science Lab *Credits: 1*

COMM 1301 - Public Speaking *Credits: 3*

Environmental Science Electives (12 Credits)

Note: Students must choose three (3) of the following courses. Choices to be made with an Advisor based upon the student's desired transfer institution and baccalaureate degree plans

- BIO 1210 - General Biology I *Credits: 4*
- BIO 2700 - Ecology *Credits: 4*
- CHEM 1220 - General Chemistry II *Credits: 4*
- GEOL 1200 - Introduction to Physical Geology *Credits: 4*
- MATH 2600 - Calculus I *Credits: 4*
- PHYS 1202 - General Physics II *Credits: 4*
- **OR** PHYS 2202 - Calculus-Based Physics II *Credits: 4*

Total Credits: 62-63

Technology Studies: Industrial Technology, AS (INTC-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

The Technology Studies: Industrial Technology associate degree program prepares students primarily to transfer to complete a B.S. degree in automotive, construction management, environmental safety, electrical engineering, manufacturing and energy. Graduates will receive a background in mathematics, science, and general education courses for transfer into a four-year program.

Careers in this field include jobs in industrial design, occupational health and safety, sustainable energy generation/transmission, lean manufacturing analysis, and laser technicians. A grade average of "B" with no grade less than 'C', and completion of the full program is required for continuation as a junior in CCSU's School of Technology or at Charter Oak.

In addition to meeting the Technical Studies outcomes students successfully completing this option will:

- Transition seamlessly into a Bachelor of Science Degree Program in Industrial Technology with junior level status in the receiving institution as part of the Technology Studies Pathway Program.
- Assist in research, development, design, production, testing and various other functions associated with engineering.
- Apply appropriate mathematical and scientific principles to engineering and technology applications.
- Identify and apply engineering principles/ concepts.
- Analyze and resolve technology problems.
- Apply knowledge and skills to develop, interpret, and select appropriate technological processes.
- Demonstrate the ability to think through a problem in a logical manner.
- Organize and carry through to conclusion the solution to a problem.
- Apply good communication skills.
- Work in teams.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Industrial Technology Courses (33-34 credits)CAD Elective *Credits:3*EGR 2250 - Computation Methods for Engineering *Credits: 3*EGR 1110 - Introduction to Engineering *Credits: 3*ENV 1800 - Sustainable Energy and the Environment *Credits: 3***OR** Any MFG course *Credits: 3-4*Specialization Electives - *Choose with guidance of advisor Credits: 18*

Choose One Course: (3 credits)

- CSC 1201 - Introduction to Programming *Credits: 4*
- CSC 1203 - Python Fundamentals *Credits: 3*
- CSC 2214 - C++ Programming *Credits: 4*
- CSC 1211 - Java I *Credits: 3*
- CSC 2212 - Java II *Credits: 3*
- EGR 1115 - Programming for Engineers *Credits: 3*
- EGR 2201 - MATLAB for Engineers *Credits: 3*
- EGR 2230 - C++ for Engineering *Credits: 3*

Total Credits: 66-68

Technology Studies: Manufacturing Engineering Technology, AS (MENT-AS-COT)

The Manufacturing Engineering Technology A.S. program emphasizes the application of mathematics and principles of engineering science to manufacturing processes and concepts in order to prepare students for transfer to baccalaureate programs in engineering and technology with a manufacturing focus. Upon successful completion of a degree program, MCC graduates may continue on with a full two years of credit towards a baccalaureate degree in engineering technology or industrial technology at Central Connecticut State University.

Also, as a standalone degree, the program gives credentials to those who are already employed in a manufacturing capacity who don't possess a degree as well as prepares students for employment opportunities in entry and second-level positions in manufacturing and industrial technology fields requiring a combination of technical preparation and a strong general education background.

Learning Outcomes:

Upon successful completion of all Manufacturing Engineering Technology degree program requirements, graduates will

- Demonstrate team-oriented skills that permit effective participation in multicultural work and social environments.
- Apply appropriate mathematical and scientific principles to manufacturing applications.
- Demonstrate proficiency in manufacturing engineering fundamentals to analyze manufacturing engineering problems and make appropriate decisions.
- Assist in the design process to meet effective production objectives.
- Possess knowledge of engineering materials and be able to demonstrate competency in their selection and utilization in manufacturing.
- Apply knowledge and skills to develop, interpret and select appropriate manufacturing processes.
- Maintain a practical knowledge of state-of-the-art hardware and software in support of manufacturing systems.
- Be aware of and use available information and data sources in support of the manufacturing systems.
- Apply skills and knowledge to effectively and efficiently plan, organize, implement, measure and control manufacturing processes.
- Demonstrate a thorough knowledge and understanding of engineering graphics as well as engineering drawing interpretation and application of geometric dimensioning and tolerancing basics.
- Demonstrate a high level of proficiency in the use of state-of-the-art computer-aided design (CAD) software and be able to respond positively to continuous software revisions and upgrades.
- Demonstrate a thorough understanding of two-dimensional and isometric CAD concepts, procedures and applications.
- Apply knowledge of computer applications in integrating computer-aided manufacturing, computer numerical control, CAD, spreadsheets, graphs and word processing for manufacturing engineering, and technology documentation and support purposes.
- In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition Credits: 3

MATH 1610 - Precalculus Credits: 4

ART Elective Credits: 3

CHEM 1110 - Concepts of Chemistry Credits: 4

OR CHEM 1210 - General Chemistry I Credits: 4

Elective HISX - Historical Knowledge Course Credits: 3

OR Elective SBSX course in ECON Credits: 3

ENG 1080 - Composition II: Technical Writing and Presentations Credits: 3

OR COMM 1301 - Public Speaking Credits: 3

CCS 1001 - College & Career Success Credits: 3

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I Credits: 4

OR PHYS 2201 - Calculus-Based Physics I Credits: 4

Elective BHEL - Behavioral Science Elective Credits: 3 choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I Credits: 3

OR MATH 1201 - Statistics I with Computer Applications Credits: 4

Manufacturing Engineering Tech Courses (30 credits)

EGR 1120 - Engineering Drawing Specs *Credits: 3*

MFG 1477 - Machine Technology Fundamentals *Credits: 4*

OR MFG 1467 - Conventional Process Machining Lab *Credits: 4*

PHYS 1202 - General Physics II *Credits: 4*

OR PHYS 2202 - Calculus-Based Physics II *Credits: 4*

MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*

CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*

MATH 2600 - Calculus I *Credits: 4*

MFG 1411 - Manufacturing Materials & Processes I *Credits: 3*

MFG 2444 - CNC I *Credits: 3*

MFG 2405 - Principles of CNC with Mastercam *Credits: 3*

Total Credits: 63-64

Technology Studies: Mechanical CAD Certificate (CADM-CC-COT)

The Mechanical Computer-Aided Design (CAD) certificate program provides students with career-based training in mechanical design using computer-aided drafting/design technology. To provide the necessary technical base, the program also includes engineering drawing, and geometric dimensioning and tolerancing skills. Basic training in computer technology is included to prepare students for the two-dimensional, three-dimensional and solid-modeling computer-aided design technology in the program. CAD technology in the core of the certificate program is comprised of 2D AutoCAD®, Solidworks® parametric solid modeling and rendering technology, as well as an option of Mastercam® CNC software, and NX parametric solid modeling. All manufacturing and engineering design in today's high-technology business and industry use computer-based manufacturing and computer-aided design technologies that integrate the design, engineering and manufacturing processes of complex products, parts, and assemblies, into a single, technically coherent process.

Learning Outcomes:

- Interpret complex engineering drawings.
- Exhibit competency in turning the engineering concept drawings into CAD models.
- Exhibit competency in two-dimensional, three-dimensional and solid-modeling skills as applied to complex computer-aided design technology.
- Demonstrate an understanding of the role and function of parametric CAD modeling in the simplification of the design process.

Required Courses

EGR 1120 - Engineering Drawing Specs *Credits: 3*

OR MFG 1424 - Blueprint Reading 1 *Credits: 3*

CAD 1330 - 2D CAD (AutoCAD) *Credits: 3*

Choose any four of the following:

- MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*
- CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*
- CAD 2210 - Advanced Parametrics Design (Solidworks) *Credits: 3*
- CAD 2300 - Parametric 3D CAD using NX *Credits: 3*
- MFG 2405 - Principles of CNC with Mastercam *Credits: 3*

Total Credits: 18

Technology Studies: Mechatronics Automation Technician (MTCH-AS-COT)

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Mechatronics Automation Technician Courses (30-31 credits)

MFG 1330 - Mathematics for Electricity and Electronics *Credits: 3*

MFG 1337 - Circuit Theory *Credits: 3*

OR MFG 1362 - CNC Maintenance & Repair *Credits: 3*

MFG 1338 - Digital Fundamentals *Credits: 3*

MFG 1340 - Robotics *Credits: 3*

MFG 1342 - Electronic Circuits & Devices *Credits: 3*

MFG 1343 - Industrial Motor Controls *Credits: 3*

MFG 1344 - Hydraulics and Pneumatics *Credits: 3*

MFG 1345 - Electronic Variable Speed Drive *Credits: 3*

MFG 1346 - Programmable Logic Controllers *Credits: 3*

MFG 1359 - Industrial Maintenance *Credits: 3*

MFG 1415 - Safety in the Workplace *Credits: 1*

Total Credits: 63-65

Technology Studies: Mechatronics Automation Technician Certificate (MATC-CC-COT)

The Mechatronics Automation Technician certificate provides students with the opportunity to train in a hands-on manufacturing lab environment. Throughout the duration of their training, students will develop an advanced level of skillsets in electrical, electronic, and mechanical principles as applied to the design and operation of modern, high-speed manufacturing and assemble equipment. Completing this certificate will provide the student requisite skills necessary to troubleshoot any electronic or mechanical problems associated with in the manufacturing environment, health industry, distribution systems, machining industry, wholesale, retail, warehouse, and engineering. These skills will lead directly into a career in the field of automation, CNC/Machine maintenance & repair, and/or robotics in manufacturing companies throughout the state and nation. This program was developed in response to Connecticut manufacturers' needs for a highly skilled workforce to match the needs of the regional industry sector partnerships around the state of Connecticut that graduates of the program are placed with. The student who completes the Mechatronics Automation Technician certificate program has a choice to pursue employment and/or to matriculate in an associate degree program. Many students work in the field while coming through this program through an apprenticeship program or fulltime employment. This allows students to apply what they have learned directly to the needs of their employer.

Learning Outcomes:

- Apply knowledge of theory and principles related to mechanics, electronics, computer science, and process control.
- Apply critical thinking and problem-solving skills to troubleshoot electromechanical, hydraulic, and pneumatic automation systems.
- Apply logical reasoning and mathematics to analysis of automation systems and their components.
- Communicate technical information clearly.
- Apply soft skills effectively to help gain employment and be successful in the workplace.
- Understand and follow basic shop safety guidelines and protocol.

Required Courses

MFG 1330 - Mathematics for Electricity and Electronics *Credits: 3*

MFG 1337 - Circuit Theory *Credits: 3*

OR MFG 1362 - CNC Maintenance & Repair *Credits: 3*

MFG 1338 - Digital Fundamentals *Credits: 3*

MFG 1340 - Robotics *Credits: 3*

MFG 1342 - Electronic Circuits & Devices *Credits: 3*

MFG 1343 - Industrial Motor Controls *Credits: 3*

MFG 1344 - Hydraulics and Pneumatics *Credits: 3*

MFG 1345 - Electronic Variable Speed Drive *Credits: 3*

MFG 1346 - Programmable Logic Controllers *Credits: 3*

MFG 1359 - Industrial Maintenance *Credits: 3*

MFG 1415 - Safety in the Workplace *Credits: 1*

MFG 1479 - Career Awareness for Manufacturing *Credits: 1*

Total Credits: 32

Technology Studies: Precision Manufacturing Certificate (PRMC-CC-COT)

The Precision Manufacturing certificate program equips students with the necessary hands-on experience and foundational knowledge to qualify for entry-level positions as machine operators and quality control inspectors. In this program, students are taught both conventional machining techniques and Computer Numerical Control (CNC) machining techniques. The programs were developed in response to Connecticut manufacturers' needs for a highly skilled workforce to match the needs of the regional industry sector partnerships around the state of Connecticut. The student who completes the Precision Manufacturing certificate program has a choice to pursue employment or to matriculate in an associate degree program.

Manchester is in the process of applying for National Institute for Metalworking Skills (NIMS) accreditation.

Learning Outcomes:

- Read and interpret engineering drawings/blueprints (mechanical)
- Understand the types of fits and mating parts
- Be able to interpret geometric dimensioning and tolerancing requirements applied to the engineering drawings
- Exhibit competency in machining on a lathe;
- Exhibit competency in machining on milling machine;
- Exhibit competency in two-dimensional and three-dimensional CAD as applied to mechanical parts and geometries
- Exhibit competency in creating blueprints from solid models generated through CAD
- Read and write G&M codes for CNC programming
- Be able to load and execute post processed CNC programs onto Haas CNC Machining Centers and Turning Center
- Understand metrology and its applications in quality control and production
- Understand basic principles of lean manufacturing

Required Courses

MFG 1405 - Manufacturing Math *Credits: 3*
MFG 1411 - Manufacturing Materials & Processes I *Credits: 3*
MFG 1414 - Quality & Lean Principles *Credits: 3*
MFG 1415 - Safety in the Workplace *Credits: 1*
MFG 1420 - Metrology *Credits: 3*
MFG 1467 - Conventional Process Machining Lab *Credits: 4*
MFG 2405 - Principles of CNC with Mastercam *Credits: 3*
MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*
MFG 2444 - CNC I *Credits: 3*
MFG 2445 - CNC II *Credits: 4*
CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*
EGR 1120 - Engineering Drawing Specs *Credits: 3*
OR MFG 1424 - Blueprint Reading 1 *Credits: 3*
MFG 1479 - Career Awareness for Manufacturing *Credits: 1*

Total Credits: 37

Technology Studies: Precision Manufacturing, AS (PRMN-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

In addition, Precision Manufacturing student will:

- Read and interpret engineering drawings/blueprints (mechanical)
- Understand the types of fits and mating parts
- Be able to interpret geometric dimensioning and tolerancing requirements applied to the in engineering drawings
- Exhibit competency in machining on a lathe;
- Exhibit competency in machining on milling machine;
- Exhibit competency in two-dimensional and three-dimensional CAD as applied to mechanical parts and geometries
- Exhibit competency in creating blueprints from solid models generated through CAD
- Read and write G&M codes for CNC programming
- Be able to load and execute post processed CNC programs onto Haas CNC Machining Centers and Turning Center
- Understand metrology and its applications in quality control and production
- Understand basic principles of lean manufacturing

The Technology Studies A.S. Degree transfers to Central Connecticut State University and the University of Hartford.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Precision Manufacturing Courses (36 credits)

MFG 1405 - Manufacturing Math *Credits: 3*

MFG 1411 - Manufacturing Materials & Processes I *Credits: 3*

MFG 1414 - Quality & Lean Principles *Credits: 3*

MFG 1415 - Safety in the Workplace *Credits: 1*

MFG 1420 - Metrology *Credits: 3*

MFG 1467 - Conventional Process Machining Lab *Credits: 4*

MFG 2405 - Principles of CNC with Mastercam *Credits: 3*
MFG 2439 - Geometric Dimension & Tolerancing (GD&T) *Credits: 3*
MFG 2444 - CNC I *Credits: 3*
MFG 2445 - CNC II *Credits: 4*
CAD 2200 - Parametric Design (SolidWorks) *Credits: 3*
EGR 1120 - Engineering Drawing Specs *Credits: 3*
 OR MFG 1424 - Blueprint Reading 1 *Credits: 3*

Total Credits: 69-70

Technology Studies: Robotics and Mechatronics Technician (RMTH-AS-COT)

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Robotics and Mechatronics Tech Courses (32 credits)

MFG 1330 - Mathematics for Electricity and Electronics *Credits: 3*

MFG 1220 - Digital Concepts *Credits: 3*

MFG 1250 - Robotic Automation *Credits: 3*

MFG 1210 - Circuit Design and Diagnostics *Credits: 4*

MFG 1240 - Motor Controls for Automation *Credits: 3*

MFG 1245 - Programmable Logic Controllers Applications *Credits: 3*

MFG 1230 - Industrial Fluid Power *Credits: 3*

MFG 1235 - Industrial Maintenance, Service and Repair *Credits: 3*

MFG 1225 - Digital Controls *Credits: 3*

MFG 1200 - Automation Fundamentals *Credits: 3*

MFG 1415 - Safety in the Workplace *Credits: 1*

Total Credits: 65-66

Technology Studies: Robotics and Mechatronics Technician Certificate (RMTC-CC-COT)

This certificate provides training in Mechatronics. Mechatronics is a multidisciplinary field that includes a combination of mechanical systems, robotics, electronics, telecommunications, digital processing, and digital controls. Using both instructional techniques and hands-on practice with state-of-the-art equipment, the student will receive a comprehensive and expansive education in an ever-growing career field. The successful graduate may apply their knowledge and skills in a variety of fields such as engineering, design, manufacturing, machining, troubleshooting and repair of automated equipment. The student who completes the Robotics and Mechatronics Technician certificate program has a choice to pursue employment or to matriculate in an associate degree program.

Learning Outcomes:

- Technical knowledge of the electrical sciences vital to automated electric power systems, control systems, communication systems, and sensing systems.
- Technical knowledge of hydraulic and pneumatic fluid power generation, transmission, control, and maintenance.
- Technical knowledge of mechanical control systems, timing systems, and power transmission systems from a maintenance and repair perspective.
- Technical knowledge of the generation, logic, and application of digital signals as applied in automated mechatronic systems.
- Practical knowledge of robotic systems that would include function, operation, programming, and maintenance of multiple industry leading robot vendors.
- Skill in the maintenance of mechatronic systems, the diagnosis of root causes of points of failure in those systems, and the strategies of troubleshooting solutions.
- Extensive on campus maintenance and repair practicum with state-of-the-art educational systems constructed of components from industry leading vendors including Fanuc, Festo, Siemens, Rockwell Automation, Allen Bradley, ABB, Bridgeport, Microsoft, et al.

Required Courses

MFG 1330 - Mathematics for Electricity and Electronics *Credits: 3*
MFG 1220 - Digital Concepts *Credits: 3*
MFG 1250 - Robotic Automation *Credits: 3*
MFG 1210 - Circuit Design and Diagnostics *Credits: 4*
MFG 1240 - Motor Controls for Automation *Credits: 3*
MFG 1245 - Programmable Logic Controllers Applications *Credits: 3*
MFG 1230 - Industrial Fluid Power *Credits: 3*
MFG 1235 - Industrial Maintenance, Service and Repair *Credits: 3*
MFG 1225 - Digital Controls *Credits: 3*
MFG 1200 - Automation Fundamentals *Credits: 3*
MFG 1415 - Safety in the Workplace *Credits: 1*
MFG 1479 - Career Awareness for Manufacturing *Credits: 1*

Total Credits: 33

Technology Studies: Technology and Engineering Education, AS (TEED-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

The Technology Studies: Technology and Engineering Education program can lead to certification to teach technology education in grades K-12 in the public schools of Connecticut. In addition to careers in public school teaching, technology education graduates may also function as instructors or supervisors in private schools, industry, government, or rehabilitation programs. Coursework prepares students for entry into the Technology Education program at CCSU.

In addition to meeting the Technical Studies outcomes students in this option will:

- Possess and be able to teach and assess basic knowledge and skills in technology and engineering education.
- Understand and be able to foster and assess student acquisition of age-appropriate technology and engineering concepts, as outlined.
- Demonstrate an ability to plan and maintain a safe, flexible, and age-appropriate learning environment which promotes inquiry and problem-based learning; and demonstrate the skills and knowledge to operate equipment and handle materials safely.
- Demonstrate an ability to critically assess technological and educational trends, and when appropriate, promote change in technology and engineering education.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Technology and Engineering Ed Courses (30 credits)

CAD 1330 - 2D CAD (AutoCAD) *Credits: 3*

Technology Electives: CAD, CSC, CST, DTS, EET, EGR, EVS, GIS, MAT, MEC, MFG, QUA, or TCN *Credits: 12*

Specialization Electives: BIO, CAD, CHE, CSC, CST, DTS, EET, EGR, EVS, GIS, GLG, MAT, MEC, MFG, PHY, QUA, or TCN *Credits: 15*

Total Credits: 63-64

Technology Studies: Welding & Fabrication (WFBT-AS-COT)

As part of the Connecticut College of Technology (COT), the Technology Studies A.S. degree provides the knowledge and skills within specific high-demand technology fields. The program consists of lecture and lab course work in engineering, technology, industrial technology, mathematics, sciences, and foundational requirements that provide a solid comprehensive background for continuation in a four-year technology degree program or entry into the workforce. Upon completion of a Technology Studies A.S. degree, students can transfer to Central CT State University or the University of Hartford to complete designated B.S. degrees.

Asnuntuck Campus is an American Welding Society (AWS) Accredited Test Facility

Learning Outcomes:

- Apply mathematical, scientific and technological principles and concepts to identify and formulate solutions to technical problems.
- Apply critical thinking and problem-solving skills to solve technical problems.
- Demonstrate the ability to function on teams.
- Recognize the need to engage in life-long learning.

The Technology Studies A.S. Degree transfers to Central Connecticut State University and the University of Hartford.

Welding & Technologies Learning Outcomes:

- Gain detailed knowledge of welding principles as applied to modern manufacturing processes and applications.
- Acquire the requisite advanced skills necessary to welding in today's technological environment.
- Practice and adhere to shop safety rules as they pertain to industry standards.
- Correctly and safely assemble, disassemble, and operate an oxyfuel cutting station.
- Complete satisfactory welds using SMAW in the four standard welding positions (flat, horizontal, vertical, and overhead).
- Read and interpret engineering drawings/blueprints.
- Understand and apply the appropriate steps involved in fabricating a part from design, to layout, to finished product.
- Show manual dexterity/competence in performing acceptable weldments applying basic metallurgical principles.
- Prepare and weld coupons in accordance to various welding codes in preparation for certification.
- Operate the appropriate tools and processes to successfully meet fabrication goals.
- Select and use the appropriate welding specific metrology tools.
- Apply arithmetic, algebraic, geometric, and trigonometric operations applied to the welding trade.

Technology Studies General Education Core (23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1610 - Precalculus *Credits: 4*

ART Elective *Credits: 3*

CHEM 1110 - Concepts of Chemistry *Credits: 4*

OR CHEM 1210 - General Chemistry I *Credits: 4*

Elective HISX - Historical Knowledge Course *Credits: 3*

OR Elective SBSX course in ECON *Credits: 3*

ENG 1080 - Composition II: Technical Writing and Presentations *Credits: 3*

OR COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Technology Studies Program Core (10-11 credits)

PHYS 1201 - General Physics I *Credits: 4*

OR PHYS 2201 - Calculus-Based Physics I *Credits: 4*

Elective BHEL - Behavioral Science Elective *Credits: 3* choose an ANTH, PSY or SOC course

MATH 1200 - Statistics I *Credits: 3*

OR MATH 1201 - Statistics I with Computer Applications *Credits: 4*

Welding & Fabrication Courses (35 credits)

MFG 1020 - Introduction to Welding *Credits: 4*

MFG 1050 - Welding Theory I *Credits: 3*

MFG 1028 - Blueprint Reading for Welders *Credits: 3*

MFG 1000 - Math for Welders *Credits: 3*
MFG 1049 - Introduction to Metal Fabrication *Credits: 3*
MFG 1415 - Safety in the Workplace *Credits: 1*
MFG 2081 - Advanced Welding *Credits: 3*
MFG 2050 - Welding Theory II *Credits: 3*
MFG 2073 - Welding Codes, Testing, and Certification *Credits: 3*
MFG 2080 - Advanced Fabrication *Credits: 3*
MFG 2070 - Welding Automation & Processes *Credits: 3*
MFG 2067 - Metallurgy *Credits: 3*

Total Credits: 68-69

Technology Studies: Welding and Fabrication Technologies Certificate (WFBC-CC-COT)

This certificate provides detailed knowledge of welding principles as applied to modern manufacturing processes and applications. It will provide the student with the requisite advanced skills necessary to weld in today's technological environment. The Welding Technologies and Fabrication certificate is a practical and "hands-on" program designed to teach the technical skills required to be successful in the welding trade. This curriculum is a mix of theory and practice focusing on the four major welding processes, automation, and fabrication. The student who completes the Welding and Fabrication Technologies certificate program has a choice to pursue employment or to matriculate in an associate degree program.

Asnuntuck Campus is an American Welding Society (AWS) Accredited Test Facility

Learning Outcomes:

- Gain detailed knowledge of welding principles as applied to modern manufacturing processes and applications.
- Acquire the requisite advanced skills necessary to welding in today's technological environment.
- Practice and adhere to shop safety rules as they pertain to industry standards.
- Correctly and safely assemble, disassemble, and operate an oxyfuel cutting station.
- Complete satisfactory welds using SMAW in the four standard welding positions (flat, horizontal, vertical, and overhead).
- Read and interpret engineering drawings/blueprints.
- Understand and apply the appropriate steps involved in fabricating a part from design, to layout, to finished product.
- Show manual dexterity/competence in performing acceptable weldments applying basic metallurgical principles.
- Prepare and weld coupons in accordance to various welding codes in preparation for certification.
- Operate the appropriate tools and processes to successfully meet fabrication goals.
- Select and use the appropriate welding specific metrology tools.
- Apply arithmetic, algebraic, geometric, and trigonometric operations applied to the welding trade.

Required Courses

MFG 1000 - Math for Welders *Credits: 3*
MFG 1479 - Career Awareness for Manufacturing *Credits: 1*
MFG 1020 - Introduction to Welding *Credits: 4*
MFG 1050 - Welding Theory I *Credits: 3*
MFG 1028 - Blueprint Reading for Welders *Credits: 3*
MFG 1049 - Introduction to Metal Fabrication *Credits: 3*
MFG 1415 - Safety in the Workplace *Credits: 1*
MFG 2081 - Advanced Welding *Credits: 3*
MFG 2050 - Welding Theory II *Credits: 3*
MFG 2073 - Welding Codes, Testing, and Certification *Credits: 3*
MFG 2080 - Advanced Fabrication *Credits: 3*
MFG 2070 - Welding Automation & Processes *Credits: 3*
MFG 2067 - Metallurgy *Credits: 3*

Total Credits: 36

Theater Studies - TAP/CSCU Transfer Degree, AA (THTR-AA-TAP)

The TAP Theater Studies degree provides students with the opportunity for educational, professional, and personal development through the study and practice of the theater arts. Opportunities include preparing for transfer to four-year institutions, conservatories, or individual studio training; employment in the theater profession; and the personal development of the essential skills inherent in theater practice, such as discipline, collaboration, and creativity.

Learning Outcomes:

- Demonstrate competency in the analysis of theatrical art.
- Demonstrate competency in the performance of theatrical art.
- Demonstrate competency in the production of theatrical art.
- Demonstrate competency in the standards and practices of the theater profession.
- Demonstrate competency in the skills essential for further education in theater studies.

The CSCU Pathway Transfer Degree in Theater Studies, A.A. is a 61-credit degree. Note that in order to graduate and be guaranteed admission to a State University or to Charter Oak State College, you must earn an overall 2.0 grade point average.

Students who declare the Transfer Ticket: CSCU Pathway Transfer Degree: Theatre Studies. A.A. can transfer to the following majors and universities:

- Central Connecticut State University: Theatre, Performance Emphasis, B.F.A. Theatre, Design Tech. Emphasis, B.F.A.
- Eastern Connecticut State University: Theatre, Acting Concentration, B.A. Theatre, Directing Concentration, B.A. Theatre, Dance & World Performance, B.A. Theatre, Design Technology & Management, B.A.
- Southern Connecticut State University: Theatre, B.A.
- Western Connecticut State University: Theatre Arts, Theatre Studies Option, B.A. Theatre Arts, Performance Option, B.A.

You are free to choose any courses at or above 1000-level to complete any available unrestricted electives. You can also complete other General Education requirements at Central and Western, but not at Eastern.

Finally, if you intend to transfer to Central CT State University in New Britain, you are strongly urged to begin work on the required minor. CCSU requires an 18-credit minor; you can complete up to 9 credits of that minor at the community college. Your advisor will help you to determine which courses to select. Important: If you did not complete a 3rd year of a foreign language in high school or met the language requirement in some other way, you must use unrestricted elective credit to complete a second semester level of a foreign language course before transferring.

Framework Courses (30-33 credits)

ENG 1010 - Composition *Credits: 3*
 Elective QUAX - Quantitative Reasoning Course *Credits: 3-4* (MATH 1100 Recommended)
 Elective ARHX - Arts & Humanities Course *Credits: 3-4*
 Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*
 Elective SBSX - Social / Behavioral Science Course *Credits: 3*
 Elective WRIX - Written Communication II Course *Credits: 3*
 Elective SCKX - Scientific Knowledge Course *Credits: 3-4*
 Elective HISX - Historical Knowledge Course *Credits: 3*
 Elective ORAX - Oral Communication Course *Credits: 3*
 CCS 1001 - College & Career Success *Credits: 3*

Pathway Courses (30 credits)

THR 1102 - Theater History *Credits: 3*
 THR 1110 - Acting I *Credits: 3*
 THR 1112 - Voice and Diction *Credits: 3*
 THR 1120 - Stagecraft *Credits: 3*
 THR 2210 - Acting II *Credits: 3*
 Elective GLKY - Global Knowledge Course *Credits: 3*
 Unrestricted Electives *Credits: 12*

Total Credits: 60-63

Theater, AA (THTR-AA)

The CSCC Theater Program provides students with the opportunity for educational, professional, and personal development through the study and practice of the theater arts. Opportunities include preparing for transfer to four-year institutions, conservatories, or individual studio training; employment in the theater profession; and the personal development of the essential skills inherent in theater practice, such as discipline, collaboration, and creativity.

Program Learning Outcomes:

- Demonstrate competency in the analysis of theatrical art.
- Demonstrate competency in the performance of theatrical art.
- Demonstrate competency in the production of theatrical art.
- Demonstrate competency in the standards and practices of the theater profession.
- Demonstrate competency in the skills essential for further education in theater studies.

Graduates are afforded various theater employment or internship opportunities in theater production, education, design, and performance.

Theater General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Theater Program Core (24 credits)

THR 1102 - Theater History *Credits: 3*

THR 1110 - Acting I *Credits: 3*

THR 2210 - Acting II *Credits: 3*

THR 1112 - Voice and Diction *Credits: 3*

THR 1114 - Movement and Expression *Credits: 3*

THR 1120 - Stagecraft *Credits: 3*

THR 1195 - Theater Practicum I *Credits: 3*

THR 1113 - Improvisation *Credits: 3*

Electives (15 credits)

THR Elective *Credits: 12 (See Program Coordinator for Advising)*

Open Elective *Credits: 3*

Total Credits: 60-63

Theater: Design & Production, AA (THTR-AA-DES)

The CSCC Theater Program provides students with the opportunity for educational, professional, and personal development through the study and practice of the theater arts. Opportunities include preparing for transfer to four-year institutions, conservatories, or individual studio training; employment in the theater profession; and the personal development of the essential skills inherent in theater practice, such as discipline, collaboration, and creativity.

Program Learning Outcomes:

- Demonstrate competency in the analysis of theatrical art.
- Demonstrate competency in the performance of theatrical art.
- Demonstrate competency in the production of theatrical art.
- Demonstrate competency in the standards and practices of the theater profession.
- Demonstrate competency in the skills essential for further education in theater studies.

Graduates are afforded various theater employment or internship opportunities in theater production, education, design, and performance.

Theater General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Theater Program Core (24 credits)

THR 1102 - Theater History *Credits: 3*

THR 1110 - Acting I *Credits: 3*

THR 2210 - Acting II *Credits: 3*

THR 1112 - Voice and Diction *Credits: 3*

THR 1114 - Movement and Expression *Credits: 3*

THR 1120 - Stagecraft *Credits: 3*

THR 1195 - Theater Practicum I *Credits: 3*

THR 1113 - Improvisation *Credits: 3*

Design & Production Courses (15 credits)

THR 1124 - Costume Design and Production *Credits: 3*

THR 1125 - Scenic Design and Production *Credits: 3*

THR 1123 - Lighting Design and Production *Credits: 3*

THR 1122 - Sound Design and Production *Credits: 3*

THR 2229 - Stage Management *Credits: 3*

Total Credits: 60-63

Theater: Musical Theater, AA (THTR-AA-MUS)

The CSCC Theater Program provides students with the opportunity for educational, professional, and personal development through the study and practice of the theater arts. Opportunities include preparing for transfer to four-year institutions, conservatories, or individual studio training; employment in the theater profession; and the personal development of the essential skills inherent in theater practice, such as discipline, collaboration, and creativity.

Program Learning Outcomes:

- Demonstrate competency in the analysis of theatrical art.
- Demonstrate competency in the performance of theatrical art.
- Demonstrate competency in the production of theatrical art.
- Demonstrate competency in the standards and practices of the theater profession.
- Demonstrate competency in the skills essential for further education in theater studies.

Graduates are afforded various theater employment or internship opportunities in theater production, education, design, and performance.

Theater General Education Core (21-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Theater Program Core (24 credits)

THR 1102 - Theater History *Credits: 3*

THR 1110 - Acting I *Credits: 3*

THR 2210 - Acting II *Credits: 3*

THR 1112 - Voice and Diction *Credits: 3*

THR 1114 - Movement and Expression *Credits: 3*

THR 1120 - Stagecraft *Credits: 3*

THR 1195 - Theater Practicum I *Credits: 3*

THR 1113 - Improvisation *Credits: 3*

Musical Theater Courses (15 credits)

DANC 1002 - Ballet: Renaissance to Romantic *Credits: 3*

OR DANC 1011 - Jazz I: Afro-American/Caribbean *Credits: 3*

OR DANC 1111 - Jazz II: Broadway and Film *Credits: 3*

THR 2216 - Musical Theater Training I *Credits: 3*

THR 2217 - Musical Theater Training II *Credits: 3*

THR 2295 - Theater Practicum II *Credits: 3*

MUS 1101 - Music Theory I *Credits: 3*

Total Credits: 60-63

Therapeutic Recreation Certificate (THER-CC)

The Therapeutic Recreation (TREC) Certificate program is designed to prepare individuals for employment in the workplace as a Therapeutic Recreation Director (TRD) in the State of Connecticut. Students in the certificate program meet the standards established in the Public Health Code of the State of Connecticut which emphasizes that quality patient care will be provided by graduates to individuals in chronic, long term care facilities such as assisted living facilities, convalescent nursing homes, other care facilities with nursing supervision, and community settings.

Learning Outcomes:

The Therapeutic Recreation Certificate is dedicated to educating and training students to become competent professionals in the field. Graduates will:

- Meet the state health code requirements to hold the position of therapeutic recreation director (TRD) in the State of Connecticut.
- Demonstrate the ability to comprehend and apply the necessary skills required of a therapeutic recreation director.
- Demonstrate the ability to comprehend the needs of individuals with special needs and the positive outcomes of therapeutic recreation intervention.
- Demonstrate the ability to successfully assess, plan, implement, and evaluate therapeutic recreation programs for individuals with special needs both in a clinical and community setting.
- Demonstrate leadership, interpersonal, and communication skills necessary to work in a health care or community-based setting.

Required Courses

ENG 1010 - Composition *Credits: 3 3* Composition

HSER 1001 - Introduction to Human Services *Credits: 3*

PSY 1011 - General Psychology I *Credits: 3 3* General Psychology

TREC 1001 - Introduction to Therapeutic Recreation *Credits: 3*

TREC 1002 - Processes and Techniques in Therapeutic Recreation *Credits: 3*

TREC 2001 - Therapeutic Recreation Program Planning *Credits: 3*

TREC 2023 - Therapeutic Recreation Leisure and Aging *Credits: 3*

SOSC 2094 - Cooperative Education/Work Experience *Credits: 3*

OR HSER 2696 - Human Services Field Work I *Credits: 3*

HSER 2420 - Group and Interpersonal Relations *Credits: 3*

OR PSY 1005 - The Psychology of Group Dynamics *Credits: 3*

TREC 2015 - Therapeutic Recreation Leadership & Supervision *Credits: 3*

OR HSER 2600 - Supervision and Management in Human Services *Credits: 3*

Total Credits: 30

Therapeutic Recreation, AS (THER-AS)

Therapeutic Recreation is a specialized allied health field within the recreation profession. According to the American Therapeutic Recreation Association (ATRA) "Recreational therapy, also known as therapeutic recreation, is a systematic process that utilizes recreation and other activity-based interventions to address the assessed needs of individuals with illness/and or disabling conditions, as a means to psychological health, recovery and well- being."

The Therapeutic Recreation associate degree is designed to address the need for a degree beyond the Therapeutic Recreation certificate. In addition to earning the Therapeutic Recreation Director (TRD) certification within the associate degree, a graduate from the associate degree in Therapeutic Recreation will have potential advancement opportunities in the field. This could include supervisory opportunities within the Therapeutic Recreation department in a long-term care setting or other health care settings working with an older population. The associate degree in Therapeutic Recreation will also prepare students to work in a variety of therapeutic recreation settings such as rehabilitation facilities, correctional centers, group homes, community-based programs serving individuals with special needs and facilities for individuals with disabilities.

Students can expect to find employment upon completion of this degree program in a variety of Therapeutic Recreation settings or transfer to a baccalaureate institution in Therapeutic Recreation.

Learning Outcomes:

Upon successful completion of all Therapeutic Recreation associate degree program requirements the graduate will:

- Demonstrate the ability to understand and apply the necessary skills required of a Therapeutic Recreation professional in a variety of therapeutic recreation settings.
- Demonstrate knowledge of the varied needs of individuals identified as having special needs and the positive outcomes of the therapeutic recreation interventions by utilizing evidence-based practice modalities.
- Demonstrate the ability to assess, plan, implement, document, and evaluate therapeutic programs for individuals with special needs within both a therapeutic and community setting.
- Demonstrate the ability to conduct a variety of therapeutic modalities, interventions, and facilitation techniques to meet the varied needs of individuals within the therapeutic recreation setting.
- Demonstrate leadership, interpersonal and communication skills within the classroom setting and through work experience within a therapeutic recreation setting.
- Demonstrate professional behavior consistent with the therapeutic recreation code of ethics while participating in supervised internship experiences within the program.

In addition, the graduate will complete the comprehensive learning outcomes identified with the General Education Core.

Admission requirements: Open enrollment. Students may enroll in this program full -time or part-time and can attend day or evening classes.

Background checks may be required at internship setting.

Medical immunizations (Flu vaccine & Covid vaccine) may be required

National exams: There is no national exam for this level of education (associate degree in Therapeutic Recreation). Students may continue their education at a baccalaureate institution in Therapeutic Recreation and become qualified to sit for the national exam offered by the National Council for Therapeutic Recreation Certification (NCTRC) to become certified as a certified therapeutic recreation specialist (CTRS).

General Education Courses (22-24 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

BIO 1100 - Principles of the Human Body *Credits: 3*

AND BIO 1100L - Principles of the Human Body Lab *Credits: 1*

PSY 1011 - General Psychology I *Credits: 3*

COMM 1301 - Public Speaking *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Program Courses (40 credits)

HSER 2420 - Group and Interpersonal Relations *Credits: 3*

OR PSY 1005 - The Psychology of Group Dynamics *Credits: 3*

TREC 1001 - Introduction to Therapeutic Recreation *Credits: 3*

TREC 1002 - Processes and Techniques in Therapeutic Recreation *Credits: 3*

TREC 2001 - Therapeutic Recreation Program Planning *Credits: 3*

TREC 2023 - Therapeutic Recreation Leisure and Aging *Credits: 3*

TREC 2015 - Therapeutic Recreation Leadership & Supervision *Credits: 3*

OR HSER 2600 - Supervision and Management in Human Services *Credits: 3*

SOSC 2094 - Cooperative Education/Work Experience *Credits: 3*

OR HSER 2696 - Human Services Field Work I *Credits: 3*

PSY 2001 - Lifespan Development *Credits: 3*

PSY 2045 - Abnormal Psychology *Credits: 3*

TREC 2095 - Professional Practicum in Therapeutic Recreation *Credits: 4*

PSY 1163 - Children with Disabilities *Credits: 3*

PSY 1173 - Adults with Disabilities *Credits: 3*

HSER 1001 - Introduction to Human Services *Credits: 3*

Total Credits: 62-64

Veterinary Technology - Middlesex, AS (VETT-AS-MX)

Middlesex Community College Veterinary Technology Program is accredited by the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA) as a program for educating veterinary technicians. Successful degree completion prepares students for immediate employment in veterinary practices, biomedical research, zoo/wildlife medicine, industry, military, livestock health management, and pharmaceutical sales. Through classroom, laboratory, and field experience students are prepared for entry-level positions in the veterinary/animal fields, with a special focus on companion animal medicine and practice. Graduates are able to sit for the Veterinary Technician National Exam (VTNE). VTNE preparation and job placement assistance are provided.

Learning Outcomes:

- Sit for the Veterinary Technician National Exam.
- Demonstrate skills and knowledge of domestic animals including normal values for temperature, pulse, and respiration; conduct a thorough and accurate physical examination including the proper use of the stethoscope; and restrain animals for physical examination and veterinary techniques.
- Perform animal nursing and critical care for all common domestic animals including: restraint, administering medications, diagnostic sampling for laboratory evaluation, maintaining fluid therapy, applying and removing bandages and splints, and applying established emergency protocols.
- Assist with animal surgery including knowledge of routine procedures and operating room equipment; prepare the patient, veterinary personnel, and equipment for sterile surgical procedures; and function effectively as a surgical assistant to the veterinary surgeon during surgical procedures.
- Induce, stabilize, monitor, and maintain anesthesia under supervision of the veterinarian; recognize and report anesthetic emergencies; and apply resuscitation techniques and cardiopulmonary resuscitation (CPR).
- Assist with diagnostic imaging including radiography and ultrasound; produce and evaluate radiographs to provide diagnostic images for veterinary interpretation and diagnosis; and properly clean and maintain diagnostic imaging equipment.
- Perform common laboratory procedures: hematologic examinations, blood chemistries, urinalysis, parasitic examinations, cytological procedures, microbiological procedures, and necropsy.
- Provide competent assistance with office procedures: telephone contacts, scheduling appointments, admitting and discharging patients, maintaining medical and financial records, and establishing and maintaining a clean and orderly veterinary facility.
- Communicate with the public, clients, and colleagues through both verbal and written communication skills, including effective listening.
- Demonstrate knowledge of the common medicines used in veterinary medicine including: types and groups of drugs; indications, contraindications and side effects; labeling and packaging of dispensed drugs; using weights and measures correctly; calculating dosages; and safely storing, handling, and disposing of controlled substances, biologics, therapeutic agents, and hazardous wastes.
- Differentiate between normal and abnormal patient responses to medication.
- Understand basic knowledge of animal health and husbandry, and common diseases and disease processes for all common domestic animals.
- Demonstrate skills and knowledge associated with the use of common laboratory animals including basic principles of animal research and local, state, and federal animal welfare regulations.
- Demonstrate skills and knowledge associated with cleaning, sanitizing, and sterilizing equipment and facilities, including knowledge of products, equipment, procedures, and techniques routinely used in reducing, eliminating, or preventing contamination of the animal-care institutions.

The CT State Community College Veterinary Technology programs are campus-specific programs with selective admissions. The programmatic accrediting body, Committee on Veterinary Technician Education and Activities, requires campus-specific accreditations and all program-required VET courses must be completed at the campus of admittance as each program provides students with clinical experiences unique to their campus location. All prerequisite courses and general education (non-VET) post-admittance courses can be completed at any campus of CT State Community College.

The Veterinary Technology programs have enrollment caps and selective admission. The Veterinary Technology programs have the following application requirements:

- Completion of the following prerequisite courses (all with a grade of C or better): ENG 1010, MATH 1100 or higher, BIO 1210, CHEM 1110. The biology and chemistry must have been completed within five years prior to the application deadline.
- Two letters of recommendation. One each from a teacher (academic) and supervisor (professional).
- Personal statement/essay stating the applicant's goals & reasons for program entry.
- Preference is given to students with a GPA of 2.7 or higher.
- Interview with Veterinary Technology admissions committee. Not all eligible students will be selected for an interview.

Given the selective nature of the admissions process, admission cannot be guaranteed.

Veterinary Technology General Education Core (18-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 or higher*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

CHEM 1110 - Concepts of Chemistry *Credits: 4 (This is a preadmission requirement/competency. This can be met in a variety of ways prior to program admission.)*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

VET 1002 - Veterinary Office Management and Communication *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Veterinary Technology Program Core (51 credits)

BIO 1210 - General Biology I *Credits: 4*

VET 1001 - Introduction to Veterinary Technology *Credits: 3*

VET 1003 - Animal Care and Handling *Credits: 3*

VET 1026 - Veterinary Terminology and Medical Math *Credits: 2*

VET 1051 - Small Animal Clinical Nursing *Credits: 4*

VET 1052 - Large Animal Clinical Nursing *Credits: 4*

VET 2001 - Veterinary Anatomy & Physiology I *Credits: 4*

VET 2002 - Veterinary Anatomy & Physiology II *Credits: 4*

VET 2005 - Veterinary Laboratory Procedures *Credits: 2*

VET 2012 - Principles of Veterinary Imaging *Credits: 1*

VET 2020 - Animal Pathophysiology *Credits: 3*

VET 2030 - Veterinary Anesthesia and Surgical Nursing *Credits: 3*

VET 2035 - Veterinary Microbiology and Immunology *Credits: 4*

VET 2038 - Veterinary Parasitology *Credits: 3*

VET 2040 - Periodontology and Oral Radiology *Credits: 2*

VET 2050 - Principles of Pharmacology for Veterinary Technicians *Credits: 3*

VET 2095 - Veterinary Technology Externship I *Credits: 1*

VET 2195 - Veterinary Technology Externship II *Credits: 1*

Middlesex Specific Course (3 credits)

VET 2031 - Combined Clinical Course for Veterinary Surgical Nursing, Lab Procedures, and Radiology *Credits: 3*

Minimum Credits: 69

Veterinary Technology - Northwestern, AS (VETT-AS-NW)

Northwestern Campus

Northwestern Connecticut Community College Veterinary Technology Program is accredited by the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA) as a program for educating veterinary technicians.. Successful degree completion prepares students for immediate employment in veterinary practices, biomedical research, zoo/wildlife medicine, industry, military, livestock health management, and pharmaceutical sales. Through classroom, laboratory, and field experience students are prepared for entry-level positions in the veterinary/animal fields, with a special focus on companion animal medicine and practice. Graduates are able to sit for the Veterinary Technician National Exam (VTNE). VTNE preparation and job placement assistance are provided.

Learning Outcomes:

- Sit for the Veterinary Technician National Exam.
- Demonstrate skills and knowledge of domestic animals including normal values for temperature, pulse, and respiration; conduct a thorough and accurate physical examination including the proper use of the stethoscope; and restrain animals for physical examination and veterinary techniques.
- Perform animal nursing and critical care for all common domestic animals including: restraint, administering medications, diagnostic sampling for laboratory evaluation, maintaining fluid therapy, applying and removing bandages and splints, and applying established emergency protocols.
- Assist with animal surgery including knowledge of routine procedures and operating room equipment; prepare the patient, veterinary personnel, and equipment for sterile surgical procedures; and function effectively as a surgical assistant to the veterinary surgeon during surgical procedures.
- Induce, stabilize, monitor, and maintain anesthesia under supervision of the veterinarian; recognize and report anesthetic emergencies; and apply resuscitation techniques and cardiopulmonary resuscitation (CPR).
- Assist with diagnostic imaging including radiography and ultrasound; produce and evaluate radiographs to provide diagnostic images for veterinary interpretation and diagnosis; and properly clean and maintain diagnostic imaging equipment.
- Perform common laboratory procedures: hematologic examinations, blood chemistries, urinalysis, parasitic examinations, cytological procedures, microbiological procedures, and necropsy.
- Provide competent assistance with office procedures: telephone contacts, scheduling appointments, admitting and discharging patients, maintaining medical and financial records, and establishing and maintaining a clean and orderly veterinary facility.
- Communicate with the public, clients, and colleagues through both verbal and written communication skills, including effective listening.
- Demonstrate knowledge of the common medicines used in veterinary medicine including: types and groups of drugs; indications, contraindications and side effects; labeling and packaging of dispensed drugs; using weights and measures correctly; calculating dosages; and safely storing, handling, and disposing of controlled substances, biologics, therapeutic agents, and hazardous wastes.
- Differentiate between normal and abnormal patient responses to medication.
- Understand basic knowledge of animal health and husbandry, and common diseases and disease processes for all common domestic animals.
- Demonstrate skills and knowledge associated with the use of common laboratory animals including basic principles of animal research and local, state, and federal animal welfare regulations.
- Demonstrate skills and knowledge associated with cleaning, sanitizing, and sterilizing equipment and facilities, including knowledge of products, equipment, procedures, and techniques routinely used in reducing, eliminating, or preventing contamination of the animal-care institutions.

The CT State Community College Veterinary Technology programs are campus-specific programs with selective admissions. The programmatic accrediting body, Committee on Veterinary Technician Education and Activities, requires campus-specific accreditations and all program-required VET courses must be completed at the campus of admittance as each program provides students with clinical experiences unique to their campus location. All prerequisite courses and general education (non-VET) post-admittance courses can be completed at any campus of CT State Community College.

The Veterinary Technology programs have enrollment caps and selective admission. The Veterinary Technology programs have the following application requirements:

- Completion of the following prerequisite courses (all with a grade of C or better): ENG 1010, MATH 1010 or higher, BIO 1210, CHEM 1110. The biology and chemistry must have been completed within five years prior to the application deadline.
- Two letters of recommendation. One each from a teacher (academic) and supervisor (professional).
- Personal statement/essay stating the applicant's goals & reasons for program entry.
- Preference is given to students with a GPA of 2.7 or higher.
- Interview with Veterinary Technology admissions committee. Not all eligible students will be selected for an interview.

Given the selective nature of the admissions process, admission cannot be guaranteed.

Veterinary Technology General Education Core (18-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 or higher*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

CHEM 1110 - Concepts of Chemistry *Credits: 4 (This is a preadmission requirement/competency. This can be met in a variety of ways prior to program admission.)*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

VET 1002 - Veterinary Office Management and Communication *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Veterinary Technology Program Core (51 credits)

BIO 1210 - General Biology I *Credits: 4*

VET 1001 - Introduction to Veterinary Technology *Credits: 3*

VET 1003 - Animal Care and Handling *Credits: 3*

VET 1026 - Veterinary Terminology and Medical Math *Credits: 2*

VET 1051 - Small Animal Clinical Nursing *Credits: 4*

VET 1052 - Large Animal Clinical Nursing *Credits: 4*

VET 2001 - Veterinary Anatomy & Physiology I *Credits: 4*

VET 2002 - Veterinary Anatomy & Physiology II *Credits: 4*

VET 2005 - Veterinary Laboratory Procedures *Credits: 2*

VET 2012 - Principles of Veterinary Imaging *Credits: 1*

VET 2020 - Animal Pathophysiology *Credits: 3*

VET 2030 - Veterinary Anesthesia and Surgical Nursing *Credits: 3*

VET 2035 - Veterinary Microbiology and Immunology *Credits: 4*

VET 2038 - Veterinary Parasitology *Credits: 3*

VET 2040 - Periodontology and Oral Radiology *Credits: 2*

VET 2050 - Principles of Pharmacology for Veterinary Technicians *Credits: 3*

VET 2095 - Veterinary Technology Externship I *Credits: 1*

VET 2195 - Veterinary Technology Externship II *Credits: 1*

Northwestern Specific Courses (3 credits)

VET 2006 - Clinical Application to Veterinary Laboratory Procedures *Credits: 1*

VET 2013 - Clinical Diagnostic Imaging for the Veterinary Technician *Credits: 1*

VET 2032 - Clinical Anesthesia, Surgical Nursing and Dentistry for Veterinary Technicians *Credits: 1*

Minimum Credits: 69

Veterinary Technology - Norwalk, AS (VETT-AS-NK)

Norwalk Campus

Norwalk Community College Veterinary Technology Program is accredited by the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA) as a program for educating veterinary technicians. Successful degree completion prepares students for immediate employment in veterinary practices, biomedical research, zoo/wildlife medicine, industry, military, livestock health management, and pharmaceutical sales. Through classroom, laboratory, and field experience students are prepared for entry-level positions in the veterinary/animal fields, with a special focus on companion animal medicine and practice. Graduates are able to sit for the Veterinary Technician National Exam (VTNE). VTNE preparation and job placement assistance are provided.

Learning Outcomes:

- Sit for the Veterinary Technician National Exam.
- Demonstrate skills and knowledge of domestic animals including normal values for temperature, pulse, and respiration; conduct a thorough and accurate physical examination including the proper use of the stethoscope; and restrain animals for physical examination and veterinary techniques.
- Perform animal nursing and critical care for all common domestic animals including: restraint, administering medications, diagnostic sampling for laboratory evaluation, maintaining fluid therapy, applying and removing bandages and splints, and applying established emergency protocols.
- Assist with animal surgery including knowledge of routine procedures and operating room equipment; prepare the patient, veterinary personnel, and equipment for sterile surgical procedures; and function effectively as a surgical assistant to the veterinary surgeon during surgical procedures.
- Induce, stabilize, monitor, and maintain anesthesia under supervision of the veterinarian; recognize and report anesthetic emergencies; and apply resuscitation techniques and cardiopulmonary resuscitation (CPR).
- Assist with diagnostic imaging including radiography and ultrasound; produce and evaluate radiographs to provide diagnostic images for veterinary interpretation and diagnosis; and properly clean and maintain diagnostic imaging equipment.
- Perform common laboratory procedures: hematologic examinations, blood chemistries, urinalysis, parasitic examinations, cytological procedures, microbiological procedures, and necropsy.
- Provide competent assistance with office procedures: telephone contacts, scheduling appointments, admitting and discharging patients, maintaining medical and financial records, and establishing and maintaining a clean and orderly veterinary facility.
- Communicate with the public, clients, and colleagues through both verbal and written communication skills, including effective listening.
- Demonstrate knowledge of the common medicines used in veterinary medicine including: types and groups of drugs; indications, contraindications and side effects; labeling and packaging of dispensed drugs; using weights and measures correctly; calculating dosages; and safely storing, handling, and disposing of controlled substances, biologics, therapeutic agents, and hazardous wastes.
- Differentiate between normal and abnormal patient responses to medication.
- Understand basic knowledge of animal health and husbandry, and common diseases and disease processes for all common domestic animals.
- Demonstrate skills and knowledge associated with the use of common laboratory animals including basic principles of animal research and local, state, and federal animal welfare regulations.
- Demonstrate skills and knowledge associated with cleaning, sanitizing, and sterilizing equipment and facilities, including knowledge of products, equipment, procedures, and techniques routinely used in reducing, eliminating, or preventing contamination of the animal-care institutions.

The CT State Community College Veterinary Technology programs are campus-specific programs with selective admissions. The programmatic accrediting body, Committee on Veterinary Technician Education and Activities, requires campus-specific accreditations and all program-required VET courses must be completed at the campus of admittance as each program provides students with clinical experiences unique to their campus location. All prerequisite courses and general education (non-VET) post-admittance courses can be completed at any campus of CT State Community College.

The Veterinary Technology programs have enrollment caps and selective admission. The Veterinary Technology programs have the following application requirements:

- Completion of the following prerequisite courses (all with a grade of C or better): ENG 1010, MATH 1100 or higher, BIO 1210, CHEM 1110. The biology and chemistry must have been completed within five years prior to the application deadline.
- Two letters of recommendation. One each from a teacher (academic) and supervisor (professional).
- Personal statement/essay stating the applicant's goals & reasons for program entry.
- Preference is given to students with a GPA of 2.7 or higher.
- Interview with Veterinary Technology admissions committee. Not all eligible students will be selected for an interview.

Given the selective nature of the admissions process, admission cannot be guaranteed.

Veterinary Technology General Education Core (18-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1010 - Intermediate Algebra *Credits: 3 or higher*

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

CHEM 1110 - Concepts of Chemistry *Credits: 4 (This is a preadmission requirement/competency. This can be met in a variety of ways prior to program admission.)*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

VET 1002 - Veterinary Office Management and Communication *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Veterinary Technology Program Core (51 credits)

BIO 1210 - General Biology I *Credits: 4*

VET 1001 - Introduction to Veterinary Technology *Credits: 3*

VET 1003 - Animal Care and Handling *Credits: 3*

VET 1026 - Veterinary Terminology and Medical Math *Credits: 2*

VET 1051 - Small Animal Clinical Nursing *Credits: 4*

VET 1052 - Large Animal Clinical Nursing *Credits: 4*

VET 2001 - Veterinary Anatomy & Physiology I *Credits: 4*

VET 2002 - Veterinary Anatomy & Physiology II *Credits: 4*

VET 2005 - Veterinary Laboratory Procedures *Credits: 2*

VET 2012 - Principles of Veterinary Imaging *Credits: 1*

VET 2020 - Animal Pathophysiology *Credits: 3*

VET 2030 - Veterinary Anesthesia and Surgical Nursing *Credits: 3*

VET 2035 - Veterinary Microbiology and Immunology *Credits: 4*

VET 2038 - Veterinary Parasitology *Credits: 3*

VET 2040 - Periodontology and Oral Radiology *Credits: 2*

VET 2050 - Principles of Pharmacology for Veterinary Technicians *Credits: 3*

VET 2095 - Veterinary Technology Externship I *Credits: 1*

VET 2195 - Veterinary Technology Externship II *Credits: 1*

Norwalk Specific Courses (3 credits)

VET 2006 - Clinical Application to Veterinary Laboratory Procedures *Credits: 1*

VET 2013 - Clinical Diagnostic Imaging for the Veterinary Technician *Credits: 1*

VET 2033 - Clinical Approach to Veterinary Anesthesia and Surgical Nursing *Credits: 1*

Minimum Credits: 69

Visual Art, AA (VART-AA)

The Visual Art Program is designed to expand the student's creative potential through a series of studio courses and academic electives. Students explore a range of media, solve visual problems, build formal, technical, and conceptual skills. The program prepares students for transfer to four-year programs in art. Additionally, the Photography Option prepares students for entry level positions in photography.

Learning Outcomes:

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

- Integrate skills, techniques, and the safe use of materials and equipment necessary for studio art creation.
- Combine an understanding of art, design concepts, critical thinking, and problem solving in order to apply these skills to art processes using a variety of media.
- Communicate and critique art and concepts using specific art vocabulary.
- Apply a strong fine arts foundation and high quality, relevant coursework in preparation for career or transfer.
- Analyze and evaluate the historical and cultural context of selected works of art.
- Develop an understanding of the principles and elements of two- and three-dimensional design and their applications to various studio disciplines.

Visual Art General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Visual Art Program Core (24 credits)

ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*

OR ARTH 1002 - Global Art History 1500 CE to present *Credits: 3*

ART 1110 - Drawing I *Credits: 3*

ART 1120 - Drawing II *Credits: 3*

OR ART 1130 - Figure Drawing I *Credits: 3*

OR ART 1770 - Printmaking I *Credits: 3*

ART 1210 - Two-Dimensional Design *Credits: 3*

ART 1220 - Three-Dimensional Design *Credits: 3*

OR ART 1310 - Sculpture I *Credits: 3*

ART 1250 - Color Theory *Credits: 3*

OR ART 1510 - Painting I *Credits: 3*

ART 1410 - Darkroom Photography I *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

Elective ARTH - Art History Elective *Credits: 3*

Visual Art Electives (15 credits)

Directed Studio Art Electives* (Choose two 6 contact hour courses) *Credits: 6*

Directed Studio Art or Graphic Design or Digital Graphics Electives* (Choose two 6 contact hour courses) *Credits: 6*

Open Elective *Credits: 3*

Total Credits: 60-62

Visual Art: Design, AA (VART-AA-DSN)

This program prepares students with a foundation of courses in art, graphic design, and digital media. This provides our students with a broad range of skills and the opportunity to explore a variety of career options.

Learning Outcomes:

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

- Demonstrate proficiency in the skills that are required in today's graphic design industry.
- Attain an expanded awareness and a critical understanding of graphic design products.
- Demonstrate proficiency with graphic design and digital media software that are industry standards.

Visual Art General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRXX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Visual Art Program Core (24 credits)

ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*

OR ARTH 1002 - Global Art History 1500 CE to present *Credits: 3*

ART 1110 - Drawing I *Credits: 3*

ART 1120 - Drawing II *Credits: 3*

OR ART 1130 - Figure Drawing I *Credits: 3*

OR ART 1770 - Printmaking I *Credits: 3*

ART 1210 - Two-Dimensional Design *Credits: 3*

ART 1220 - Three-Dimensional Design *Credits: 3*

OR ART 1310 - Sculpture I *Credits: 3*

ART 1250 - Color Theory *Credits: 3*

OR ART 1510 - Painting I *Credits: 3*

ART 1410 - Darkroom Photography I *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

Elective ARTH - Art History Elective *Credits: 3*

Design Option Courses (15 credits)

GRA 1501 - Graphic Design I *Credits: 3*

Open Elective *Credits: 3*

Choose two electives from the following (6 credits)

- ART 1220 - Three-Dimensional Design *Credits: 3*
- ART 1810 - Digital Video Art I *Credits: 3*
- ART 1450 - Digital Photography I *Credits: 3*
- DGA 1101 - Introduction to Computer Graphics *Credits: 3*
- **OR** GRA 2300 - Digital Imaging I *Credits: 3*
- GRA 2502 - Graphic Design II *Credits: 3*
- **OR** GRA 2401 - Digital Page Design *Credits: 3*
- GRA 2201 - Illustration I *Credits: 3*

Directed Electives: Choose one elective from the following (3 credits)

- ART 2810 - Digital Painting & Drawing *Credits: 3*
- GRA 2001 - Typography & Design I *Credits: 3*

- DGA 2101 - Advanced Computer Graphics *Credits: 3*
- **OR** GRA 2301 - Digital Imaging II *Credits: 3*
- GRA 2502 - Graphic Design II *Credits: 3*
- **OR** GRA 2401 - Digital Page Design *Credits: 3*
- GRA 2600 - Web Design *Credits: 3*

Total Credits: 60-62

Visual Art: Illustration, AA (VART-AA-ILL)

This program prepares students with a foundation of courses in art and provides them with an opportunity to pursue a career as an illustrator or in a related field that includes animation, cartooning, and fine arts.

Learning Outcomes:

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

- Become competent in a variety of artistic and digital media.
- Develop the ability to identify, analyze, and solve design problems.
- Obtain an understanding of the aesthetics of illustration and of the history and current state of design.
- Become proficient in the selection and use of relevant technologies and computer software in illustration.
- Ability to use available software and non-digital processes to sketch, model, and produce an illustration.
- Design and develop an illustration from sketch to mockup to finished process. ^{SEP}
- Become proficient in presenting work as well as discussing and constructively critiquing the work of others.

Visual Art General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Visual Art Program Core (24 credits)

ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*

OR ARTH 1002 - Global Art History 1500 CE to present *Credits: 3*

ART 1110 - Drawing I *Credits: 3*

ART 1120 - Drawing II *Credits: 3*

OR ART 1130 - Figure Drawing I *Credits: 3*

OR ART 1770 - Printmaking I *Credits: 3*

ART 1210 - Two-Dimensional Design *Credits: 3*

ART 1220 - Three-Dimensional Design *Credits: 3*

OR ART 1310 - Sculpture I *Credits: 3*

ART 1250 - Color Theory *Credits: 3*

OR ART 1510 - Painting I *Credits: 3*

ART 1410 - Darkroom Photography I *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

Elective ARTH - Art History Elective *Credits: 3*

Illustration Option Courses (15 credits)

GRA 2201 - Illustration I *Credits: 3*

ART, DGA or GRA elective (6 contact hour course) *Credits: 3*

Choose two electives from the following (6 credits):

- ART 1130 - Figure Drawing I *Credits: 3*
- ART 1220 - Three-Dimensional Design *Credits: 3*
- ART 1510 - Painting I *Credits: 3*
- **OR** ART 1550 - Watercolor I *Credits: 3*
- ART 1770 - Printmaking I *Credits: 3*
- DGA 1101 - Introduction to Computer Graphics *Credits: 3*
- **OR** GRA 2300 - Digital Imaging I *Credits: 3*

- GRA 1501 - Graphic Design I *Credits: 3*

Choose one elective from the following (3 credits):

- ART 2810 - Digital Painting & Drawing *Credits: 3*
- DGA 2101 - Advanced Computer Graphics *Credits: 3*
- **OR** GRA 2301 - Digital Imaging II *Credits: 3*
- GRA 2202 - Illustration II *Credits: 3*
- GRA 2306 - Digital Illustration *Credits: 3*

Total Credits: 60-62

Visual Art: Photography, AA (VART-AA-PHO)

The Photography Option, Visual Art associate degree program provides students with a series of courses that introduces fundamental photographic concepts and techniques and the necessary skills to transfer to the institution of their choice or succeed in an entry-level photography position.

Learning Outcomes:

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

- Demonstrate an understanding of terminology, concepts and techniques relating to photography.
- Demonstrate the ability to use a camera's creative controls to manifest intent.
- Demonstrate proficiency at traditional silver darkroom techniques including 35mm and medium format film processing and printing.
- Demonstrate proficiency at digital image capture, editing and output.
- Be able to use a variety of situation-specific natural and studio lighting techniques.
- Identify vocational and creative applications of the medium and an understanding of its cultural, historical and contemporary context.
- Be able to articulate and explain the decisions made as part of the image production process.
- Develop a quality photography portfolio.

Visual Art General Education Core (21-23 credits)

ENG 1010 - Composition *Credits: 3*

MATH 1000 or higher *Credits: 3-4* (MATH 1100 Recommended)

Elective ARHX - Arts & Humanities Course *Credits: 3-4*

Elective SCRX - Scientific Reasoning Course *Credits: 3-4*

OR Elective SCKX - Scientific Knowledge Course *Credits: 3-4*

Elective SBSX - Social / Behavioral Science Course *Credits: 3*

OR Elective HISX - Historical Knowledge Course *Credits: 3*

Elective ORAX - Oral Communication Course *Credits: 3*

OR Elective WRIX - Written Communication II Course *Credits: 3*

CCS 1001 - College & Career Success *Credits: 3*

Visual Art Program Core (24 credits)

ARTH 1001 - Global Art History Prehistory to 1500 CE *Credits: 3*

OR ARTH 1002 - Global Art History 1500 CE to present *Credits: 3*

ART 1110 - Drawing I *Credits: 3*

ART 1120 - Drawing II *Credits: 3*

OR ART 1130 - Figure Drawing I *Credits: 3*

OR ART 1770 - Printmaking I *Credits: 3*

ART 1210 - Two-Dimensional Design *Credits: 3*

ART 1220 - Three-Dimensional Design *Credits: 3*

OR ART 1310 - Sculpture I *Credits: 3*

ART 1250 - Color Theory *Credits: 3*

OR ART 1510 - Painting I *Credits: 3*

ART 1410 - Darkroom Photography I *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

Elective ARTH - Art History Elective *Credits: 3*

Photography Option Courses (15 credits)

ART 1410 - Darkroom Photography I *Credits: 3*

OR ART 1450 - Digital Photography I *Credits: 3*

Elective - ART, DGA or GRA elective (6 contact hour course) *Credits: 3*

Choose three photo/video electives (9 credits)

- ART 1420 - Darkroom Photography II *Credits: 3*
- ART 1810 - Digital Video Art I *Credits: 3*
- ART 2430 - Studio Photography I *Credits: 3*

- ART 2470 - Commercial Photography *Credits: 3*
- ART 1460 - Digital Photography II *Credits: 3*
- ART 2098 - Special Topics in Art *Credits: 3*

Total Credits: 60-62

Water Management Certificate (WAMG-CC)

The Water Management Certificate covers the operation of water treatment plants from both ground and surface water sources, as well as the water distribution systems that deliver treated water to residential, commercial, industrial, and government customers. Connecticut continually needs qualified individuals in the water treatment and distribution areas to fill positions in the increasing number of facilities.

Learning Outcomes:

Successful completion of the program provides the necessary education requirements to take the CT Department of Public Health's highest-class water industry license examinations (Class IV Water Treatment and Class III Distribution). If successful, graduates are licensed as Operators-in-Training; OIT licenses become full licenses after work experience requirements are met. CT DPH licenses are recognized by most other states.

Required Courses

CWM 1006 - Introduction to Utility Management *Credits: 3*

ENV 1100 - Environmental Regulations *Credits: 3*

WMTR 1001 - Water Treatment and Distribution *Credits: 6 **

WMTR 1002 - Special Topics in Water Treatment *Credits: 3 **

OR WMTR 1003 - Special Topics in Water Distribution *Credits: 3 **

**if both Connecticut Department of Public Health Water Treatment System and Water Distribution System Operator Certification Examinations are to be taken it is recommended that both WMTR 1001 and WMTR 1002 be taken.*

Total Credits: 15