GATEWAY COMMUNITY COLLEGE

2021-2022

COLLEGE CATALOG

ABOUT GATEWAY COMMUNITY COLLEGE

Welcome Message

Dear Gateway Community College Student,

It is my great pleasure to welcome you to Gateway Community College (GCC). We are proud of our diverse student-body, and we strive to create a learning environment that is based on mutual respect and the conviction that an open minded exchange of ideas across culture, race, gender and age differences enriches the learning experience.

Please consider this College Catalog a vital resource as you navigate your course of study and college life at GCC. Within this document you will find the requirements and expectations for our academic programs and courses, accreditation information, our college policies and procedures, and a wealth of other information that will make your experience at GCC as productive and successful as possible. The College Catalog is also our 'contract' with you, as it also outlines the college's responsibilities and obligations to you.

I hope that you will enrich your time at GCC with the many activities and extra-curricular opportunities available to you both on campus and in our community. Gateway Community College boasts an active Student Life, with numerous student-led clubs and activities, and our students have the benefit of studying in one of the nation's most prominent college towns, with access to lectures, museums, theaters and cultural events, all within walking distance.

Whatever your educational goals--whether to earn an Associate degree, transfer to a four-year college or to gain the skill set that will prepare you for a new career--I want to assure you that you are under the guidance of an expert, highly respected faculty and dedicated staff and administrators who are deeply committed to your academic and professional success.
I wish you the very best during your time at Gateway Community College.

Sincerely,

William T. Brown, Ph.D.
Chief Executive Officer

About This Catalog

This catalog contains both academic and general information and Gateway Community College's policies at the time of publication. Each student is responsible for becoming thoroughly familiar with the catalog and the rules, regulations, and program requirements it contains. A student has the right to be graduated by the College under the conditions and requirements contained in the catalog in use at the time of initial registration. A student may elect to graduate under the conditions and requirements of a program contained in a subsequent catalog. However, in no case will a student be permitted to use requirements for graduation from more than one catalog.

About the College and our Students

Gateway Community College (GCC) provides the residents and businesses of the Greater New Haven area with innovative educational programs and social and cultural opportunities at its locations in New Haven and North Haven. On July 1, 1992, the New Haven location at Long Wharf, formerly known as South Central Community College, combined resources with Greater New Haven State Technical College in North Haven. This merged institution is one of twelve public community colleges in Connecticut.

In the academic year 2018-2019, the College served the educational needs of 9,800 full- and part-time students through 120 academic programs or program options that lead to a certificate or to an associate degree in arts, science, or applied science.

There were approximately 1,500 more students enrolled in non-credit courses and Workforce Development programs. Courses are offered at convenient times for both full- and part-time study during the day, evening, and Saturdays. The College's 530 full- and part-time faculty members and 185 staff are committed to continuing the proud tradition of the institution. According to the Fall 2018 data, our student-faculty ratio remains at 16:1. In fall 2018, females comprised 59.2% of the College enrollment; 62.4% of the students are ehnic minorities, and 70.5% attend GCC on a part-time basis. The average student age is 26. We look forward to serving the residents and businesses of South Central Connecticut.

In Academic Year 2017-2018, 40% of graduates chose to continue their studies at a four-year institution. The four top universities where our students earned acceptance were Southern Connecticut State University, University of Connecticut, University of Bridgeport, and Quinnipiac University. Furthermore, 54.2% of our graduates from 2015 through 2017 were found 'employed' immediately after graduation, according to the state department of labor statistics.

The downtown campus offers all credit and non-credit courses towards associate degrees and certificates in academic and career programs. The North Haven location currently houses our Automotive programs. All degree programs are transferable to four-year colleges and universities. Curricula have been designed with local employment needs in mind. Developmental courses in English, reading, and mathematics are offered to enhance student academic skill levels. English as a Second Language courses are also offered.

The community also benefits from Gateway's numerous credit-free offerings. The Office of Business and Industry Services and the Workforce Development Institute provide workforce development, business development and technology transfer programs.

Courses and programs are offered in response to the educational, economic, and socio-cultural needs of the region.

Becoming Connecticut State Community College

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

- The final commencement ceremony for Gateway Community College is scheduled for May 2023. Ceremonies will continue to be held at each location as campuses of CT State.
- As 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 the GCC location.
- Students beginning Associate degree programs in the Fall 2021 should plan with their advisor/program coordinator to attend full-time if they wish to graduate prior to the planned merger.
- Students who begin an Associate degree program in January 2022 would be anticipated to complete their degree at the merged college, Connecticut State Community College.
- In all cases, the College is committed to students completing their education with a minimum of disruption and staying in touch with your advisor/program coordinator is essential.
- Further details can be found and will be updated on the Freqently Asked Questions page: http://www.ct.edu/ctstate/academics

STUDENTS: The Community Colleges are undergoing a merger with a plan to become 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:

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Mission and Purpose

The College community adopted the following mission statement in February 1997:

Gateway Community College offers high-quality instruction and comprehensive services in an environment conducive to learning. We respond to the changing academic, occupational, technological, and cultural needs of a diverse population.

To realize this mission, Gateway Community College:

Offers a broad range of credit and credit-free liberal arts and sciences, technical, and career associate degree and certificate programs and courses leading to transfer, employment, and lifelong learning;

Encourages student success and inclusion through stimulating learning opportunities, innovative teaching, support services, and co-curricular activities;

Supports economic development through partnerships with business, industry, government, and our community by providing workforce development, business development, and technology transfer;

Strengthens our community through the sponsorship of intellectual, cultural, social, and recreational events and activities;

Engages students and community members as active, responsible leaders.

Accreditation

Gateway Community College is accredited by the New England Commission of Higher Education (NECHE) through its Commission on Institutions of Higher Education.

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

Inquiries regarding the accreditation status by NECHE should be directed to the administrative staff of the institution. Individuals may also contact:

Commission on Institutions of Higher Education
New England Commission of Higher Education
3 Burlington Woods Drive, Suite 100
Burlington, MA 01803
(781) 425-7785
e-mail: info@neche.org

Program Accreditations

The Automotive Program - General Motors (ASEP) is certified by the ASE Education Foundation Inc.

The Nutrition and Dietetics Program is currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics, 120 South Riverside Plaza, Suite 190, Chicago, Illinois 60606-6995, (312) 899-0040 ext. 5400 or (800) 877-1600; www.eatright.org.

The Radiation Therapy and Radiography programs are accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, (312) 704-5300, www.JRCERT.org; mail@jrcert.org. The Diagnostic Medical Sonography Program is currently granted accreditation by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355-113th Street, N, #7709, Seminole, FL 33775; (727) 210-2350 Fax: (727) 210-2354 www.caahep.org. The Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) is a non-profit organization in existence to establish, maintain, and promote quality standards for educational programs in Diagnostic Medical Sonography (DMS), 6021 University Boulevard, Suite 500, Ellicott City, MD 21043; www.jrcdms.org.

(Recognized by the American Registry of Radiologic Technology, the Nuclear Medicine Technology Certification Board, and the American Society of Radiologic Technology). The Nuclear Medicine Technology Program is accredited by The Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT), located at 820 W. Danforth Road, #B1, Edmond, OK 73003, (405) 285-0546; fax: (405) 285-0579 or mail@jrcnmt.org.

The Drug and Alcohol Recovery Counselor Program is approved by the Connecticut Certification Board, a member of the International Certification and Reciprocity Consortium/Alcohol and Other Drug Abuse, Inc.

Accreditation Commission for Education in Nursing (ACEN) located at 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326. Telephone: 404-975-5000; www.acenursing.org.

The Early Childhood Education Program is accredited by the National Association for the Education of Young Children (NAEYC), Commission on the Accreditation of Early Childhood Higher Education Programs, 1313 L Street, N.W., Washington DC 20005.

The Early Learning Center is accredited by the National Association Education for Young Children (NAEYC) Early Learning Program Accreditation Council.

Licensure

Curricula are approved and licensed by the Board of Governors for Higher Education in the state of Connecticut. The state of Connecticut, Department of Education, Veterans Education Division, approves the College's programs for the education and training of veterans under provisions of Section 1775, Chapter 36, Title 38, USC.

ATM Machines

An ATM machine is located in the North building, 1st floor entrance.

Cafeteria

While classes are in session, food service is open Monday through Thursday 8:00 A.M. to 7:00 P.M., and on Fridays from 8:00 A.M. to 1:00 P.M. Special hours are posted when classes are not in session. Hot and cold sandwiches, salads, side dishes, soups, and soda are available. Snacks and beverages are also available from vending machines.

Early Learning Center Preschool

Telephone: (203) 285-2131

Weather Hotline: (203) 285-2610

The Early Learning Center, located on the first floor of the College, is a fully licensed, NAEYC accredited preschool program for young children open five days a week during the school year. The stimulating learning environment is based on the belief that each child is an individual and should be allowed to develop at his or her own pace, thus it is centered on the interests, needs, and abilities of its participants. A variety of experiences encourages children to think, analyze problems, and arrive at logical conclusions. To accomplish this, the Early Learning Center provides three curriculum models: Child Development, Modified Montessori, and Diversified Creative Curriculum. Breakfast, lunch, and an afternoon snack are included in the program.

The center's hours are Monday through Friday from 7:30 a.m. to 5:30 p.m. The weekly cost to students enrolled for a minimum of three credits at Gateway Community College is $170 per week for full time preschool; the community rate for non-students is $275 per week for full-time preschool. The School Readiness Grant provides a sliding scale fee for New Haven residents.

For more information, contact Sarah Chambers, Director at (203) 285-2132.

Parking

Individual Type and Parking Garage Access:

- Credit Students: Parking access for registered credit students will begin two weeks before the start of classes and end the day of finals
- Summer Session Students: parking access will begin the first day of class and end the last day of class for the sessions for which they have registered
- Winter Session Students: parking access will begin the first day of class and end the last day of class for the sessions for which they have registered
- Non-Credit (CCE) Students: parking access will begin the first day of the course and end the last day of course for which they have registered
- Faculty & Staff: parking access is granted based on active employee dates
- Student Employees: parking access is granted based on active employee dates
- Affiliated Staff: parking access is granted based on inputted field in Banner. Manual deactivation will be required.

Reserved parking:

- Available on the first level and designated spaces on second and third levels of the Gateway garage, for full-time faculty and staff only
- Eligible faculty/ staff must display their parking hanger or will be ticketed
- Part-time faculty and staff will park in remaining Gateway Garage spaces or in the Temple Street Garage

Visitor Parking

- Anyone visiting the college for business before the semester begins will be considered a visitor.
- Visitors will park in the Temple Street Garage and receive a ticket.
- Tickets will be validated by Gateway at the Security areas.

Cards are valid for the hours of Garage Operation (see below)

Hours of College Parking Garage Operation

Spring and Fall Semesters

Gateway Garage		Temple Street Garage
Monday – Friday	6:00 a.m. - 10:00 p.m.	24 hours - 7 days/week
Saturday	Closed	
Sundays	Closed	

Winter Intersession and Summer - Reduced daily hours/No Saturdays or Sundays

Traffic violations are punishable by fines and/or towing of vehicles at the owners' expense. Parked vehicles that create a hazard, impede traffic flow or restrict parking will be tagged and/or towed at the owner's expense.

Fines are payable in the Business Office within one week of issuance. Failure to pay fines will result in a hold on student registration for future courses until the fine is paid.

All violations are subject to appeal throughout the Traffic Appeals Committee. Request for appeal should be made through the Dean of Administrative Affairs at (203) 285-2021.

Cancellation of Classes

Weather Hotline: (203) 285-2049

Occasionally classes are cancelled or delayed due to extreme weather conditions or other emergencies. In such cases the College notifies local radio and TV stations as soon as the decision is made to cancel classes. These stations include: WICC-AM 660, WEZN-FM 99.9, WELI-AM 960, WEBE-FM 107.9 and WKCI-FM 101.3, WTNH Ch.8, WTIC Ch. 3 & 30. In general, it is best to assume that classes will remain in session unless a specific announcement is made to cancel classes and/or close the College. For the most up-to-date information, receive emergency notification by enrolling in the myCommnet Emergency Alert System found on the GCC webpage at www.gatewayct.edu.

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

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

1. **The right to inspect and review the student's education records within 45 days of the day the College receives a request for access.** Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make

arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. **The right to request amendment of an education record that the student believes is inaccurate.** Students may ask an appropriate College official to amend a record that they believe is inaccurate. The student should write to the College official, clearly identify the part of the record he or she wants changed, and specify why he/she believes it is inaccurate. The College will notify the student of the decision. If the College decides not to amend the record as requested by the student, the College will advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

NOTE: FERPA is not intended to provide a process to question substantive judgments that are correctly recorded. For example, the right of challenge does not allow a student to contest a grade in a course because the student believes that a higher grade should have been assigned.

3. **The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.** FERPA permits disclosure without consent to school officials with legitimate educational interests. A "school official" includes but is not limited to the following: a person employed by the College in an administrative, supervisory, academic, research or support staff position (including law enforcement and security personnel, counseling and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, collection agent or official of the National Student Clearinghouse); a person serving on the Board of Trustees who is authorized to act on its behalf; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities.

FERPA also permits disclosure of education records without consent in connection with, but not limited to:

- To comply with a judicial order or a lawfully issued subpoena;
- To appropriate parties in a health or safety emergency;
- To officials of another school, upon request, in which the student seeks or intends to enroll;
- In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid;
- To certain officials of the U.S. Department of Education, the Comptroller General, to state and local educational authorities, in connection with certain state or federally supported education programs;
- To accrediting organizations to carry out their functions;
- To organizations conducting certain studies for or on behalf of the College;
- The results of an institutional disciplinary proceeding against the alleged perpetrator of a crime of violence to the alleged victim of that crime with respect to that crime.
- Directory information as defined in the policy of the Board of Trustees.

4. **The right to refuse to permit the College to release directory information** about the student, except to school officials with a legitimate educational interest and others as indicated in paragraph 3 above. To do so, a student exercising this right must notify the Office of Registrar in writing *[location to be inserted by each College]*. Once filed, this notification becomes a permanent part of the student's record until the student instructs the College, in writing, to remove it.

5. **The right to file a complaint with the U.S. Department of Education concerning alleged failures by Colleges to comply with the requirements of FERPA.** The name and address of the Office that administers FERPA is:

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

Directory Information

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

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

Uniform Campus Crime Report

Gateway Community College herein complies with the State of Connecticut's Uniform Campus Crime Report, CT General Statute 10a-55a, and the Federally Mandated Clery Act, both of which mandate the annual publication of a Uniform Campus Crime and Clery Annual Security Report, and establishes a process for raising awareness of safety on college campuses. Broader awareness of campus safety issues and procedures at Gateway Community College is the first step toward improving the public safety of the college community. Gateway Community College, in compliance with all applicable State and Federal laws, will notify all current students and employees of the annual Uniform Campus Crime and Clery Annual Security Report availability on the College's website, GatewayCT.edu. A hard copy of the report can be obtained from the Gateway Community College Department of Public Safety.

Information Technology Resources Policy

The Connecticut State Colleges & Universities (CSCU) System provides information technology resources (IT resources) to faculty, staff and students for academic and administrative use. IT resources may also be available to members of the college community through college libraries and websites. This policy applies to all users of IT resources.

IT resources include, but are not limited to, computers and peripheral hardware, software, networks, databases, electronic communications and Internet connectivity. CSCU IT resources are the property of the Board of Regents. Use of such resources is a privilege and is subject to such IT policies, standards and procedures as may be promulgated from time to time.

IT resources shall be used solely for legitimate and authorized academic and administrative purposes, and in furtherance of CSCU mission and goals. They shall not be used for personal purposes, including monetary gain. Use of IT resources may be monitored by the appropriate CSCU authority to ensure proper and efficient usage, as well as to identify problems or to check for security violations.

Any unauthorized or illegitimate use of IT resources may subject the user to disciplinary action, up to and including dismissal or expulsion, as well as loss of computing privileges. Users must comply with all applicable state and federal laws and may be subject to criminal prosecution for violation thereof under state and federal laws.

The Board of Regents President is authorized to promulgate necessary and appropriate IT policies, standards and procedures, including but not limited to those affective acceptable uses of IT resources, electronic communications and network security. Colleges shall ensure that users of IT resources are aware of all IT policies, standards and procedures, as appropriate.

Computer Use Policy of Gateway Community College

This Computer Use Policy governs all computer users at Gateway Community College and outlines the acceptable use of its computer resources. The policy has been formulated in accordance with the state of Connecticut, Department of Information Technology acceptable use policy, Connecticut software management policy and Connecticut General Statute 53, sections 451-453 and in accordance with the BOR Acceptable Use Policy, which can be viewed at http://www.ct.edu/files/it/BOR_IT-001.pdf

Violation of this Computer Use Policy may result in a loss of access privileges as well as college disciplinary and/or legal action.

Scope

This policy applies to all users of Gateway Community College's computing equipment.

Objectives

This policy:

> Establishes user responsibilities;
> Defines acceptable use; and
> Defines inappropriate use of computer resources.

User Responsibilities

Computer users must be mindful of the impact of their activities on computing resources, network resources, and other users. The holder of either a network or Banner account is responsible for his/her actions and activity within his/her account. If a violation of the computer use policy is suspected, the College reserves the right to examine any of Gateway Community College's owned or operated computer resources, communication systems, and/or files.

Lab Assistants' Responsibilities

Oversee the College's open labs and uphold the Computer Use Policy

Assist students who are currently enrolled in Gateway classes

Monitor and report to the Information Technology office any activity that appears to be inappropriate

Acceptable Uses

1. Account use, including Banner account use, by the authorized owner for authorized purposes
2. Use of computer resources in a manner that respects the right of others
3. Adhering to quotas for disk space on systems, such as e-mail
4. Use of the network in a socially appropriate manner
5. Communication and exchange of information for professional and academic development
6. Applying for administrative grants or contracts for research and/or instruction
7. Collaboration with peers at other community colleges in support of work-related activities
8. Supporting appropriate institutional communication to the college community

Unacceptable Uses

1. Use of any computer resources for commercial or for profit purposes
2. Deliberately damaging or physically misusing equipment
3. Possession of food or drink in labs or at any library workstation
4. Downloading or distributing any software from the Internet without the prior consent of the Information Technology department. Examples of such downloads include, but are not limited to, screen savers, wallpapers, games, web cams, shareware/freeware programs, and PowerPoint slides
5. Engagement in chat-rooms, instant messaging, or threaded discussions on the Internet, except for legitimate academic purposes

6. Violating federal or state law, including copyright regulations
7. Concealing or misrepresenting your name or affiliation to mask irresponsible or offensive behavior, including using other identities as your own. This is fraud
8. Viewing, downloading, or printing sexually graphic or suggestive materials, including inappropriate text files or files dangerous to the integrity of the local and wide area network. Violation of this clause can be considered grounds for disciplinary action for sexual harassment
9. Installing, deleting, or altering computer software on any computer without proper license and authorization from the Information Technology department
10. Political lobbying
11. Sharing any passwords and/or accounts
12. Malicious use of the network to develop programs that harass other users, infiltrate a computer or computing system, and/or damage Gateway Community College's software
13. Sending hate mail, harassing, making discriminatory remarks, and/or other antisocial communication
14. Deliberately monopolizing computer resources to the exclusion of other users. This includes, but is not limited to, broadcasting unsolicited mailing or other messages, creating unnecessary output or printing, and creating unnecessary traffic using such tools as streaming audio, video, and game-playing on the Internet
15. Altering or manipulating another user's data/files

The Information Technology department periodically monitors computers in all areas of the College. Be aware that e-mail messages are considered public record, and are therefore legally discoverable and subject to record retention.

APPLICATION AND ADMISSION PROCEDURES

Admissions Office (203) 285-2010

Gateway Community College is dedicated to providing educational opportunities through an open-door admission policy to graduates of an approved secondary school or those who hold a State Equivalency Diploma (GED). Admission is offered on a first-come, first-served basis by program within budgetary limitations, with the exception of the following selective admissions programs: Nursing, Diagnostic Imaging and Therapy Programs, Drug and Alcohol Recovery Counselor, and General Motors Automotive programs.

The following steps must be taken to ensure a complete application file:

1. New students are encouraged to apply online for the spring, fall, winter or summer semesters via the Gateway Community College website, GatewayCT.edu. Students may also obtain an application from the Admissions Office at the College Campus, 20 Church Street, New Haven, CT 06510, or from the Gateway website.
2. A copy of a student's high school transcript showing graduation date or a copy of a high school diploma or GED must be sent to the Admissions Office at 20 Church Street, New Haven, CT 06510 or emailed to admissions@gatewayct.edu or faxed to (203) 285-2260. Please note: if you attended high school under another name, please make sure that name is noted on your diploma or transcript. Upon receipt of a college transcript showing Associate Degree or higher has been conferred, the high school diploma requirement will be waived. Verification of high school or college completion is required prior to registration for all students in a degree or certificate program.
3. All new applicants are required to pay a $20 non-refundable application fee. Attach a $20 check or money order, made payable to Gateway Community College, to your application. If you have attended another Connecticut Community College, this fee is waived. Online applicants can pay the fee with a credit card or e-check. Gateway recognized application fee waivers from College Board, SAT, ACT, NACAC, NEACAC or CONNTACT, Inc.
4. Students who attended a college outside of the U.S. and desire that coursework be considered for transfer credit must have their credits first evaluated to U.S. standard by WES or CED. An official transcript of the evaluation must be sent from the evaluating company directly to the Admissions Office for review.
5. After being admitted, all degree or certificate seeking students are required to take placement examinations in reading, English, and mathematics. Students whose first language is not English, may take the LOEP language placement test to determine their ESL course level. English and mathematics credits earned from a regionally accredited institution of higher education will be reviewed to determine if a student must take the tests. (Students in Business Office Technology may be required to take an additional, specialized proficiency examinations.) If test results indicate deficiencies, students will be expected to take an additional course or courses to increase their capability for success in college level work. In lieu of taking placement tests, students may provide evidence – college transcript(s), *SAT scores, ACT Scores, CLEP, Dantes, or Advanced Placement test results. *If providing SAT or ACT scores, they must be brought to the attention of the Director or Associate Director of Admissions for review.
6. All new students enrolled in a degree/certificate program will be required to verify immunization status. See policy below.

Measles/Mumps/Rubella/Varicella

Section 10a-155 of the Connecticut general statutes will require that each full time or matriculating student provide proof of adequate immunization against Measles, Mumps, Rubella (MMR) and Varicella as recommended by the Advisory Committee for Immunization Practices (ACIP). A copy of the statute is available at: http://www.cga.ct.gov/current/pub/chap185b.thm#sec10a-155.htm.

Full Time/Matriculating Students

Matriculating students are defined as those enrolled in a degree seeking program. Part time non-matriculating (Non Degree) students are not required to have MMR and Varicella immunizations although they are recommended to have those vaccines by ACIP. Part-time, non-matriculating students are not eligible for Financial Aid consideration.

Exemptions will be granted only:

- Individuals born in the United States before January 1, 1957 are exempt from supplying MMRV;
- Individuals born in the U.S. prior to January 1, 1980 are exempt from providing Varicella;
- Individuals born in the United States between January 1, 1957 and January 1, 1980 are exempt from supplying Varicella only (**Need proof of MMR**);
- Laboratory confirmation of immunization to such disease (titer test);
- Documentation from a physician stating that the student is medically contraindicated from receiving such vaccine;
- Documentation from the student that the immunization is contrary to his/her religious beliefs. If students claim a religious exemption or medical exemption and there is an outbreak of measles, mumps, rubella or varicella on campus, those students may be excluded from college activities, including classes and exams;
- Documentation from a physician or director of health that the student has had a confirmed case;
- For MMRV, two doses are needed. The doses should be separated by at least 30 days with dose number one given on or after the first birthday.

Any student not showing the necessary proof of immunization will not be allowed to register for classes.

Student Types

New Students - A new student is anyone who has never attended another higher education institution and is attending Gateway for the first time with the intention of obtaining a degree, certificate, or transferring to another institution. Please complete the aforementioned Admissions Procedures Steps 1 – 6.

Transfer Students - A transfer student is anyone who has attended another higher education institution prior to Gateway Admission. Please complete the aforementioned Admissions Procedures Steps 1 – 6.

Transfer applicants must request that the registrar of any college or university previously attended forward official transcripts to the Admissions Office. In addition, an official high school transcript or copy of high school diploma or GED is required. If transfer credit is desired, please notify the Admissions Office. Transfer evaluations will be performed for degree or certificate students only. New students to Gateway Community College who wish to transfer in credits from another college need to complete and submit a "New Student Transfer Evaluation Request Form." An unofficial copy will suffice for advising purposes only. Evaluations will be completed once a student registers.

At all Community Colleges, 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:

1. 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 trustees.
2. 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.
3. 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. That is the Residency Requirement of Gateway Community College.

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

International Students - An international student is a student on an F-1 visa or would like to apply for an F-1 (student) visa.

The credentials of an applicant for admission from another country are evaluated in accordance with general admissions requirements. A completed application, official leaving certificates, and detailed transcripts, in English, of the student's academic record should be sent to the Admissions Office. Applicants who wish to begin undergraduate study must submit all credentials by July 1 for the fall semester and by November 1 for the spring semester. This will allow time for the exchange of official correspondence, and, if the applicant is admitted, will allow time to obtain a passport and/or visa. The I-20 A-B Form, required by the United States Immigration and Naturalization Service, is issued by the College only to students who have been accepted as full-time degree students.

Evidence of the ability to read, write, and speak English well enough to pursue college courses must be submitted to the College. If the applicant's primary language is not English, TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System scores must be submitted. Information about the test can be obtained at www.ets.org or www.ielts.org. International applicants currently in CT may apply to take the LOEP placement test at Gateway Community College.

The College awards no financial aid (scholarships or loans) to international students, nor does the College make housing available. Applicants must be entirely self-supporting and be able to meet all financial obligations to the College in full and from their own resources. Employment in the United States is not guaranteed, and immigration laws governing employment of international students are very strict. Therefore, a letter or affidavit of support must be submitted from a financial sponsor, who must state his/her name and relationship to the applicant. The sponsor must submit a recent official financial statement in an amount calculated by the Admissions office to demonstrate his/ her willingness and ability to meet any financial obligations that are related to the student's studies at Gateway Community College.

Readmit Students - A readmit student is defined as any student whose last semester of attendance at Gateway was over two years ago.

Readmit students are former Gateway Community College students who have withdrawn from the college or have been absent from the college for at least two years (excluding summer and winter intersessions). Please contact the Admissions Office. It is not necessary to pay the $20 application fee. However, if students attended another college during their absence, they must submit an official transcript from each college if they wish to receive transfer credit consideration.

Other Special Admissions Groups - The College has special agreements with various groups that fall outside the categories mentioned above. These include High School Partnerships, Home School, TAA/WIA, and Senior Citizens. Please contact the Admissions Office for further information (203) 285-2210.

Admissions OF NEBHE Students

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:

- Nonresident students whose traveling time would be less if attending a Connecticut community college 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.
- Nonresident students who wish to enroll in a Connecticut Community College degree program which does not exist in their home states are permitted to enroll in such program at the NEBHE tuition rate.

High School Partnership Program

Developed by the Board of Trustees of Connecticut Community Colleges, this program provides the opportunity for a junior or senior to experience college while still in high school. In order for a student to participate, his/her high school must have a partnership contract signed and on file with the college. The tuition and fees for students in this program are paid for by the Board of Trustees and apply toward the General Fund credit classes only. See your High School Guidance Counselor for more information.

Home-Schooled Students

Home-schooled students who have completed their high school program of study may be admitted as degree-seeking or non-degree seeking, full or part-time. Home-schooled students, like all new students, will be required to submit an application and required fee, verify graduation, take the College ACCUPLACER academic assessment and per state law, provide documentation that they have been immunized against Measles, Mumps and Rubella and Varicella.

Home-schooled students who do not have a high school diploma may still attend Gateway Community College but only as part-time, non-degree seeking students. All home-schooled students must demonstrate sufficient academic ability and complete the ACCUPLACER academic assessment test. Home-schooled students must meet with the Director of Enrollment Management or Associate Director of Admissions.

Diagnostic Imaging and Therapy Programs

The field of Diagnostic Imaging and Therapy includes some of the most rapidly advancing careers in modern medicine. Gateway Community College responds to this by offering programs in four areas of diagnostic imaging and therapy. The Radiography and Radiation Therapy Programs are accredited by the Board of Governors for Higher Education and the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, (312) 704-5300, (mail@jrcert.org). The Nuclear Medicine Technology Program is accredited by the Board of Governors for Higher Education and the Joint Review Committee on Educational Programs in Nuclear Medicine Technology, 820 W. Danforth Road, Suite #B1, Edmond, OK 73003; (405) 285-0546; fax: (405) 285-0579, or mail@jrcnmt.org.

Diagnostic Imaging and Therapy refers to four disciplines:

Diagnostic Medical Sonography: Diagnostic Medical Sonographers use highly sophisticated equipment that uses high frequency sound waves to produce images necessary to assist the physician in the diagnosis and treatment of diseases.

Nuclear Medicine: Nuclear Medicine technologists administer radiopharmaceuticals, acquire and process images using a gamma or PET camera and computer system to assist physicians in the diagnosis and treatment of disease.

Radiation Therapy: Radiation Therapists use highly sophisticated equipment to administer therapeutic doses of ionizing radiation, as prescribed by the physician, for the treatment of disease, primarily cancer.

Radiography: Radiographers are primarily responsible for administering ionizing radiation to the patient and producing images necessary to assist the physician in the diagnosis and treatment of disease or injury.

The courses in the Diagnostic Imaging and Therapy curricula are designed to build sequentially upon the knowledge learned in previous courses. Therefore, all required courses must be taken in sequence, and all prerequisites must be met prior to registration. Each program consists of a didactic component taught at the College and clinical laboratory experiences at one or more of the affiliated hospitals. To be eligible for graduation, students must successfully complete both components.

Admission Requirements

Refer to the Diagnostic Imaging and Therapy Program Information Packet that can be found on the Gateway Community College website, www.gatewayct.edu.

Transfer Credits

Program specific transfer credits from outside institutions will not be accepted.

Graduation Requirements

In addition to the College's general requirements, the programs require a minimum grade of "C" in each and all mathematics, science, pre-requisite, and program-specific courses. In addition, students are required to pass all clinical practicums and internships with a grade of "P." Students must also successfully complete all of the program's published clinical competencies. Graduates are eligible to apply for admission to the National certification examination in Radiologic Technology, Nuclear Medicine Technology or Sonography administered by the American Registry of Radiologic Technology, Nuclear Medicine Technology Certification Board and/or the American Registry for Diagnostic Medical Sonography.

For more information on the Diagnostic Imaging and Therapy programs, contact the Enrollment Services Assistant, Mary Beth Banks at (203) 285-2388 or e-mail at (mbanks@gatewayct.edu).

Note: Non-traditional students who did not complete high school but earned a GED may be evaluated based on GED math and science scores and/or prior college credits.

Miscellaneous Information

Basic Life Support (BLS) Certification

Students are required to provide documentation of current professional level certification in Basic Life Support for adult, child, and infant. Certification can only be earned through the American Heart Association or the American Red Cross and must remain current throughout the Program. Courses meeting this requirement are: The American Heart Association Basic Life Support (BLS) for Healthcare Providers **OR** The American Red Cross CPR/AED for the Professional Rescuer. Failure to comply will result in exclusion from the clinical learning experience.

Clinical Sites

Clinical learning experiences are planned as an integral part of the Diagnostic Imaging and Therapy courses and are held at a variety of healthcare settings. Students are responsible for arranging their own transportation and parking fees at the clinical sites. Clinical experiences may be assigned during daytime and evening hours. Assignment of clinical sites is at the discretion of the faculty. Clinical sites may require a mandatory parking fee.

Criminal Background Checks

Many clinical sites are now requiring that criminal background checks, and/or toxicology screening (for drugs and alcohol) be completed on any students who will be attending a clinical rotation at those facilities. Students must follow instructions for obtaining a background and/or toxicology screening at college of attendance. 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 clinical experiences. Results of student background checks and toxicology screening do <u>not</u> become a part of the student's educational records, as defined by the Family Educational Rights and Privacy Act (FERPA). If you cannot participate in a clinical rotation at an assigned facility, you will not be able to complete the objectives of the course and of the program. Specific situations are reviewed by college personnel.

Felony Conviction

The ARRT, NMTCB, and ARDMS investigate all potential violations to determine eligibility for certification. For further information, please visit the websites – www.arrt.org, www.nmtcb.org, or www.ardms.org.

Health Requirements

1. Accepted Diagnostic Imaging and Therapy students must be seen by their healthcare provider and cleared to participate in Diagnostic Imaging and Therapy courses with no restrictions.
2. Health Assessment Form and Immunization records must be submitted electronically by the student to the Health Form Tracking Services system.

Immunization Requirements - students will receive a packet of information describing current college policies.

Diagnostic Imaging and Therapy Health Assessment Form - completed forms (which document specific requirements for the Diagnostic Imaging and Therapy programs) must be on file in accordance with college policy.

Technical Standards

The Diagnostic Imaging and Therapy students must be able to apply the knowledge and skills necessary to function in a broad variety of clinical situations. Technical standards reflect reasonable performance expectations of the Diagnostic Imaging and Therapy students for the performance of common functions of the registered technologist. These requirements address capabilities in the areas of motor, sensory, communication, behavior and critical thinking abilities. **The technical standards** can be found at www.gatewayct.edu.

ARRTS Program

This program results in an Associate of Science Degree for hospital-based graduates in the areas of Diagnostic Medical Sonography, Nuclear Medicine Technology, Radiation Therapy, and Radiography. Gateway Community College offers an innovative program for hospital-trained Radiologic Technologist professionals who wish to acquire their Associate of Science Degree. Gateway will grant credit to those applicants who are graduates of a two-year accredited hospital-based (certificate) program and hold certification by the American Registry of Radiologic Technology. Certification areas include: Diagnostic Medical Sonography, Nuclear Medicine, Radiation Therapy, and Radiography, ARDMS, ARRT (N), (T), (R), (D), (S), NMTCB.

Upon verification of transcripts and current documentation of ARRT certification, applicants will be awarded up to 34 credits for courses in Diagnostic Medical Sonography, Nuclear Medicine, Radiation Therapy, or Radiography. Individuals accepted into this program need only complete program pre-requisite courses and any general education courses required for the associate degree. Degree credit will also be granted for credit courses completed at other accredited collegiate institutions.

TUITION, FEES, & PAYMENT POLICIES

Bursar's Office: (203) 285-2009

Location: North Building Room N216

Hours: 8:15 a.m. to 4:15 p.m. Monday, Tuesday, Thursday, and Friday; 8:15 a.m. to 6:45 p.m. Wednesday

Miscellaneous: Cash, Checks, VISA, MasterCard, AMEX, and Discover Cards accepted at the Bursar's Window. A Drop Box for non-cash transactions is located adjacent to the Bursars Office. VISA, MasterCard, AMEX, and Discover payments are also accepted online at http://my.commnet.edu.

When to Pay: Full payment is due at registration! Failure to pay may subject your registration to cancellation. While classes are routinely dropped for non-payment, students who do not officially drop their courses will be responsible for the charges. Students who register on the web will not receive an additional invoice from the college.

Special Circumstances:

Early Registration: During the Fall and Spring regular academic sessions, you may hold your classes until the Tuition Due Date by paying your nonrefundable fees at the time of registration OR enrolling in an installment payment plan. If you choose not to enroll in a payment plan, th full amount of the tuition is then due on the tuition due date. If the full balance is not made, your registration will be cancelled and the non-refundable fees you paid will be forfeited.

Financial Aid and Loan Students:

- As long as you have authorized financial aid or a loan on your account, you will not be dropped from your courses for non-payment.
- You are strongly advised to carefully monitor the status of your financial aid/loan at http://my.commnet.edu. Please keep in mind that the formula for calculating your authorization amount takes into account the number of credits you are registered for and the authorization amount will be recalculated if you change your course load. Since it is not uncommon for a financial aid student to actually owe money to the college after dropping a course, you are also strongly advised to contact the Financial Aid Office at (203) 285.2030 before doing so.
- You are responsible for paying any portion of your bill that is not covered by your financial aid authorization or loan. Additionally, you will be held immediately responsible for full payment of the total balance due regardless of when the change occurs 1) if your financial aid is not awarded; or 2) if your financial aid authorization amount is lessened for any reason, including reducing your course load; or 3) if your authorization is later rescinded.
- **A FINANCIAL AID/LOAN APPLICATION DOES NOT GUARANTEE THAT YOU ARE ELIGIBLE FOR A FINANCIAL AID AWARD OR LOAN, NOR DOES IT EXEMPT YOU FROM PAYMENT.**

Third Party Voucher Payments: Vouchers are to be submitted to the Bursars Office at the time of registration to ensure that your registration is not dropped for non-payment. You will be immediately responsible for full payment of your account if your written commitment from a third party is not honored.

Past Due Accounts: You may not register for a future semesters until your account is paid in full. The College expects all students to meet their financial obligations prior to the start of each semester. However, if your account should become past due during the semester for any reason (i.e. a financial aid authorization change, late/missed installment plan payment, etc.) your account will be assessed a **$15 late payment fee** and the College will place a hold on your account that will bar you from registration and transcript services. This hold will remain in effect until your entire past balance is paid in full. The College will send an e-mail notification and an e-bill (or both) to your MyCommnet account. If these attempts to collect the debt are unsuccessful, your account will be placed with a collection agency and you may be held liable for the cost of collection.

Checks returned by the bank: Checks that are returned from a bank for any reason must be replaced with cash, money order or bank check within seven days (one week) of the college's receipt of notification by the bank. A fee of $25 will also be charged to the student's account. In addition your class schedule may be cancelled which may not result in any reduction of your charges.

Tuition Installment Payment Plan: GCC offers a Tuition Installment Payment Plan for students with accounts in good standing who are enrolled in 3 or more credits during the Fall and Spring semesters. Accounts are considered to be in good standing when they are paid in full for prior semesters. Students can enroll online by logging into their MyCommNet account. Please refer to: http://www.gatewayct.edu/Paying-For-College/Installment-Plan for detailed enrollment instructions.

The Installment Plan is an inexpensive alternative to a student loan or paying by credit card. Enrolling in a plan costs just $25 per semester, and allows students to budget the cost of tuition and fees by spreading out the cost over a number of scheduled payments.

You may still owe a balance on your IPLAN even if you have reduced your course load or withdrawn. Therefore, students are strongly advised to contact the Bursar Office first to determine the impact, if any, your schedule change will have on your account balance.

Tuition and Fees – Effective Fall 2021

Tuition and fees are established by the Board of Regents for Higher Education and are subject to change without notice. **Please refer to the http://www.commnet.edu/Finance/Tuition.asp for current tuition and fee rates.**

Tuition		2021 - 2022
Full-time Student (12 credit hours or more per semester)		
	Connecticut Resident	$1,992.00
	Non-resident	$5,976.00
	New England Regional Student Program	$2,988.00
Part-time Student (Per credit hour through 11 hours per semester)		
	Connecticut Resident	$166.00
	Non-resident	$498.00
	New England Regional Student Program	$249.00
Extension Fees (applies to Continuing Education credit programs(all terms), Summer Sessions and Winter Intersessions)		
Full-time Student (12 credit hours or more per semester)		
	Connecticut Resident	$2,160.00

	Non-resident	$2,160.00
	New England Regional Student Program	$2,160.00
Part-time Student (Per credit hour through 11 hours per semester)		
	Connecticut Resident	$180.00
	Non-resident	$180.00
	New England Regional Student Program	$180.00
Other Fees		
Full time Student (12 credit hours or more per semester)		
Student Activity Fee		$20.00
College Service Fee		
	Connecticut Resident	$246.00
	Non-resident	$738.00
	New England Regional Student Program	$369.00
Part-time Student (Per Semester hour through 11 hours)		
Student Activity Fee		$10.00
College Service Fee - Connecticut Resident		
	1 Credit	$88.00
	2 Credits	$95.00
	3 Credits	$101.00
	4 Credits	$106.00
	5 – 11 Credits	Varies ea. add'l credit

College Service Fee - Non-Resident		
	1 Credit	$264.00
	2 Credits	$285.00
	3 Credits	$303.00
	4 Credits	$318.00
	5 – 11 Credits	Varies ea. add'l credit
College Service Fee - New England Regional Student Program		
	1 Credit	$132.00
	2 Credits	$142.50
	3 Credits	$151.00
	4 Credits	$159.00
	5 – 11 Credits	Varies ea. add'l credit
Tier II Fees		
Academic Evaluation (Credit by Exam - per test)		$15.00
Portfolio Assessment		$100.00
CLEP Service Fee (Subject to change per CLEP Fee Schedule)		$15.00
Proctoring Fee/Test (CCC Students / Non-CCC Students)		$15.00/$35.00
CT-CCNP Student Assessment Fee (semester 1-3/ semester 4)		$82.00/$262.00
Returned Check Charge		$25.00
Application Fee		$0
Late Registration Fee		$5.00

Late Payment Fee	$15.00
Program Enrollment	$0
Installment Plan Enrollment Fee	$25.00
Replacement Lost ID	$10.00
Mandatory Usage Fees	
Transportation Fee (per semester)	$20.00
Materials Fee (per registration in designated courses)	$51.00
Advanced Manufacturing Lab Fee (per course)	$120.00
Supplemental Course Fee Level 1 (per registration in designated courses when faculty hours exceed credit hours)	$102.50
Supplemental Course Fee Level 2 (per registration in designated courses when faculty hours exceed credit hours)	$205.00
Clinical Program Fee Level 1 (charged each fall and spring to students matriculated in Allied Health and Nursing Programs	$487.00
Clinical Program Fee Level 2 (charged each fall & spring to students matriculated in Allied Health and Nursing programs)	$359.00
Nursing Media Fee (charged to Nursing students each semester)	$247.75
Excess Credits Tuition Charge (applies when total registered credits exceed 17 for the semester)	$100.00

Tuition and Fee Notes

The maximum amount a student will be charged (per term) for Supplemental Level 1 and/or Supplemental Level 2 fees is $410. The maximum amount a student will be charged per term for Materials Fees is $102.

Online/Distance Learning courses are charged Connecticut Resident Tuition rates.

No student who has an unpaid account at any state community college may register at that same college or any other state community college.

Tuition and Fee Waivers

Senior Citizen Waivers for Individuals age 62 or Older: Application, Student Activity and College Service Fees are waived. In addition, a waiver of tuition is granted on a space available basis during the fall and spring semesters only when the registration occurs during or after the special registration session, held at the end of the regular registration period. Senior Citizens are responsible for paying all Supplemental and Material fees at the time of registration. No Senior Citizen Waiver for tuition will be granted prior to the special session. Senior Citizen Waivers are not granted for classes offered through the Workforce Development and Continuing Education Division or for special fees. Waivers are requested at the Bursar's Office.

Veterans' Waiver: CGS 27-103 entitles a waiver of tuition for honorably discharged veterans who are Connecticut residents and who served on active duty for at least ninety (90) days during one of the following periods: World War II (12/7/41-12/31/46), Korean Hostilities (6/27/50-1/31/55), Lebanon Conflict (7/1/1958-11/1/1958), Vietnam Era (2/28/61-7/1/75), Operation Desert Storm (8/2/1990-present), or those engaged in combat or a combat support role in four (4) other specific military operations between 1982 and 1990. *Reservists and members of the National Guard who have been activated for 90 days or more can qualify for the tuition waiver.* The waiver applies to tuition (not to fees or for courses offered through the Division of Continuing Education) for credit courses taken in the fall or spring semesters. To be eligible for this waiver, the student must pay all fees and present a copy of his/her DD214 (discharge certificate) to the Bursar's Office in accordance with the College's Payment Policies.

National Guard Waiver: Under CGS section 10a-77, tuition is waived for any active member of the Connecticut Army or Air National Guard who is a Connecticut resident, certified by the Adjutant General or his/her designee as a member in good standing of the Guard and enrolled in a degree or certificate program. If the guard member receives tuition reimbursement from an employer, this waiver will be reduced by the amount of the reimbursement. The waiver applies to tuition (not to fees or for courses offered through the Division of Continuing Education) for credit courses taken in the fall or spring semesters. To be eligible for this waiver, the student must pay all fees and present a copy of the written Waiver from the Adjutant General to the Bursar's Office in accordance with the College's Payment Policies.

Dependent Children of POWs and MIAs: Under CGS section 10a-77, tuition is waived for any dependent children of a person declared by the U.S. Armed Forces as missing in action or a prisoner of war while serving in the Armed Forces after January 1, 1960, who was a resident of Connecticut at his/her time of entry into the Armed Forces or while serving. The waiver applies to tuition (not to fees or for courses offered through the Division of Continuing Education) for credit courses taken in the fall or spring semesters. To be eligible for this waiver, the student must pay all fees and present a proof of eligibility to the Bursar's Office in accordance with the College's Payment Policies.

Refund Policies and Procedures

General Information: Refunds are automatically paid by check to the student at the end of the official Add/Drop period unless the student directs the Bursars Office otherwise. Checks are processed in Hartford and mailed to the permanent mailing address on file at the Records Office. Please verify your address when reducing your course load.

Courses Cancelled by the College: If the College cancels a course, a full refund of all charges (except application fee) will be issued unless the student selects a replacement course. Students who don't select a replacement course, will be sent a refund check via the mail within 45 days.

Return of Title IV Funds: The College maintains a fair and equitable refund policy as mandated by the U.S. Department of Education regulations. These refund and repayment rules apply only to students who withdraw completely and/or otherwise fail to complete the current period of enrollment. Please refer to the appropriate section in this catalog or speak with a Financial Aid Officer for more details.

Armed Service Enlistment: 100% refund of Tuition and Fees will be granted to any student who enters the Armed Services before earning degree credit in any semester, provided that he/she submits, in writing, a notice of withdrawal and a certified copy of enlistment papers.

Tuition and Fee Refunding Rules and Installment Plan Adjustments:

College Service, Student Activity, Installment Plan, Application, and Transportation other fees not listed below **are nonrefundable**.

Clinical Fees: Are nonrefundable unless a student completely withdraws or is not enrolled in any credit course at the end of the official add/drop period.

Allied Health and Personal Liability Insurance Fees: A curriculum change must be filed prior to the start of the term to be eligible for a refund of Allied Health/Nursing program and Personal Liability Insurance fees.

Tuition, Material and Supplemental Fees: The student must officially withdraw either online or in the Records Office according to the schedule below to be eligible for a refund or a reduction of Installment Plan Charges.

- If the student completely drops from classes prior to the first day of the semester, a 100% refund of Tuition, Materials, and Supplemental Fees will be granted.
- If the student completely drops from classes on the 1st day through the 14th calendar day of the semester, a 50% refund of Tuition, Materials, and Supplemental Fees will be granted.
- If the student completely or partially withdraws from classes after the first fourteen (14) calendar days of the semester, **NO** refund of Tuition, Materials, and Supplemental fees will be granted.
- If the student partially drops from classes on the 1st day through the 14th calendar day of the semester, a refund will be granted in the amount of 50% of the difference in Tuition, Materials, and Supplemental Fees between the original and revised schedules.

Please refer to the refunding table printed in the College Schedule for specific withdrawal deadlines applicable to abbreviated courses

Extension Credit Fees: A 100% refund of extension credit fees for courses offered by the Workforce Development and Continuing Education Division will be granted to students who officially drop up to the business day prior to the first day of class meeting. No refund will be granted once the class has met.

Policy Appeal Procedures: Students are required to officially drop/withdraw prior to submitting an appeal. Appeals will only be considered for the following extraordinary circumstances: severe illness documented by a physician's certificate; documented administrative error by the college; or military transfer documented by a copy of transfer orders. The following circumstances will not be considered: changes in employment situation; inability to transfer course; normal illness; transportation issues; poor decision or change of mind by the student regarding course selection; or dissatisfaction with course content or instructor. All appeals must be submitted in writing to the Refund Appeals Coordinator and include Banner I.D., contact information and appropriate documentation. Appeals must be received within 10 days of the official withdrawal date of the course to be considered. Appeals should be directed to the Refund Appeals Coordinator, Gateway Community College Business Office, 20 Church Street, New Haven, CT 06510 or e-mail gw-student payments@gatewayct.edu.

FINANCIAL AID

Telephone (203) 285-2030

Gateway Community College is committed to providing access to higher education by minimizing economic barriers. The College provides several options for financial aid, including state and federal grants, scholarships, student loans, and the federal work-study program. Awards may come from one or any combination of the four preceding sources as determined by federal and local eligibility guidelines. Financial need, academic performance, and resources available to the student are all considered in determining final eligibility.

Students must have a high school diploma or a GED, be enrolled in an approved degree or one-year certificate program, and must maintain "Satisfactory Academic Progress" as described in the Academic Policies and Procedures section.

Policies and regulations instituted by Title IV, Student Financial Aid Programs, and Gateway Community College require that a student's academic progress be monitored and measured to determine continuing financial aid eligibility. To maintain eligibility for financial aid, students must sustain Satisfactory Academic Progress (for additional information, please see the Student Handbook).

All financial aid awards are predicated upon available funds and subject to revision by the Financial Aid Office upon change in enrollment status, additional resources, scholarships, and/or lack of completion of necessary information to determine eligibility. All awards are based upon a student's enrollment status at the end of the add/drop period. Financial aid is disbursed twice per academic year: the first disbursement occurs during the fall semester and the second disbursement during the spring semester.

Application Process

All students must complete the Free Application for Federal Student Aid (FAFSA) to establish eligibility. Students may complete this form via the web application at http://www.fafsa.ed.gov (school code 008037). Upon receipt, the Financial Aid Office may request additional documentation to verify the authenticity of your application. Additional information may be found via email or commnet.edu .

Selective Service

All males between ages 18 and 25 must register with the Selective Service System to be eligible for Title IV, Student Financial Aid (http://www.sss.gov) Males that do not fit these criteria must stop by the Financial Aid Office, N215.

Types of Financial Aid

Federal Pell Grant Program

The Federal Pell Grant Program provides awards up to $6,495 and is a need-based grant for low-income undergraduate students. Post-baccalaureate students may qualify if applicable. Grant amounts are dependent on: the student's Expected Family Contribution (EFC) (see below); the cost of attendance (as determined by the institution); the student's enrollment status (full-time or part-time); and whether the student attends for a full academic year or less. Students may not receive Federal Pell Grant for two or more schools during the same semester/academic year.

Financial need is determined by the U.S. Department of Education using a standard formula, established by Congress, to evaluate the financial information reported on the FAFSA and to determine the family EFC. The fundamental elements in this standard formula are the student's income (and assets if the student is independent), the parents' income and assets (if the student is dependent), the family's household size, and the number of family members (excluding parents) attending postsecondary institutions. The EFC is the sum of: (1) a percentage of net income (remaining income after subtracting allowances for basic

living expenses and taxes) and (2) a percentage of net assets (assets remaining after subtracting an asset protection allowance). Different assessment rates and allowances are used for dependent students, independent students without dependents, and independent students with dependents. After filing a FAFSA, the student receives a Student Aid Report (SAR) via regular mail or email, which notifies the student if he or she is eligible for a Federal Pell Grant, provides the student's EFC, and may request changes to be made to the application for accurate processing.

Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG Program provides need-based grants up to $4,000. Financial Aid administrators at participating institutions have substantial flexibility in determining the amount of FSEOG awards to provide students who are enrolled or accepted for enrollment. Priority is given to those students with "exceptional need" (those with the lowest EFCs at the institution) and those who are also Federal Pell Grant recipients.

Federal Work-Study Program

This program is need-based and provides jobs for students who receive financial aid. Its purpose is to provide funds, job experience, assist students with building their resume. to allow employers to hire enrolled students. This part-time employment will be on the College campus. It is a first come first served program. Students must be in good academic standing with a minimum of 6 credits per semester. Students may work a maximum of 15 hours per week while attending classes. If funds are available, eligible students may work a maximum of 25 hours during certain times throughout the academic year. Students interested in this program should contact the Financial Aid Office.

Federal Direct Loan Program

These fixed-rate loans, guaranteed by the federal government, are available to students who apply for financial aid using the FAFSA. The application process must be initiated through the Financial Aid Office. Payment on the principal is not required until 6 months after the student stops attending school, or falls below (six credits) half-time. There are two types:

Subsidized Federal Stafford Loan

Subsidized Stafford Loans are need-based loans. The government will pay the interest on the loan while the student is enrolled at least half-time (6 credits) and during other authorized periods called "deferments." The interest rate on this type of loan is fixed. For more information on loan rates please visit https://studentaid.ed.gov/sa/types/loans/interest-rates

Unsubsidized Federal Stafford Loan

Unsubsidized Stafford Loans are available to students who do not qualify for need-based loans, or who qualify for less than the annual maximum of Subsidized Stafford Loan. The government does not pay the interest to the lender; the student can choose to either pay the interest while in school, or have the interest added to the loan principal to be repaid later. The interest rate on this type of loan is fixed. For more information on loan rates please visit https://studentaid.ed.gov/sa/types/loans/interest-rates.

Direct PLUS Loan

Direct PLUS Loans are federal loans that parents of dependent undergraduate students can use to help pay for college or career school. The government does not pay the interest to the lender; the student's parents can choose to either pay the interest while in school, or have the interest added to the loan principal to be repaid later. The interest rate of this type of loan is fixed. For more information on loan rates, please visit https://studentaid.ed.gov/sa/types/loans/interest-rates.

Loan Origination Fees

The Department of Education charges loan origination fees, which will be deducted proportionately from each loan disbursement. Revenue from these fees help reduce the government's cost of providing these loans.

Roberta B. Willis Scholarship Program

This scholarship program is a need and merit-based award that provides awards up to $4,650 a year for full-time attendance in a 2-year program of study. Connecticut residents who are a high school senior or graduate with a high school junior year class rank of 20% or better and/or SAT scores of at least 1210 or ACT score of at least 27 would qualify. Also, Connecticut residents who attend a Connecticut public or non-profit private college may also qualify for up to $4,500 for full-time study in a 2-year program of study.

Gateway Community College Grants

These funds are allocated to the College by the State of Connecticut and are awarded based on financial need and availability of funds. Grants are provided up to $5,200 for students that are registered for a minimum of at least six credits.

Connecticut Aid to Public College Students

These funds are allocated to the College by the State of Connecticut and are awarded based on financial need and available funds.

Treatment of Title IV Aid When a Student Withdraws

Gateway Community College offers the following Title IV Student Aid Programs that are referred to when a student withdraws during a semester: Federal Pell Grants, Direct Loans, Direct PLUS Loans, and Federal Supplemental Educations Opportunity Grants (FSEOGs).

Though your aid is posted to your account at the start of each period, you earn the funds as you complete the period. If you withdraw during your payment period or period of enrollment (fall, spring, or summer), the amount of Title IV program assistance that you have earned up to that point is determined by a specific formula. If you received (or Gateway or your parent received on your behalf) less assistance than the amount that you earned, you may be able to receive those additional funds. If you received more assistance than you earned, the excess funds must be returned by the school and/or you.

The amount of assistance that you have earned is determined on a pro rata basis. For example, if you complete 30% of your payment period or period of enrollment, you earned 30% of the assistance you were originally scheduled to receive. Once you have completed more than 60% of the payment period or period of enrollment, you earned all the assistance that you were scheduled to receive for that period.

If you did not receive all of the funds that you earned, you may be due a post-withdrawal disbursement. If your post-withdrawal disbursement includes loan funds, your school must get permission before it can disburse them. You may choose to decline some or all of the loan funds so that you don't incur additional debt. Your school may automatically use all or a portion of your post-withdrawal disbursement of grant funds for tuition, fees, and room and board charges (as contracted with Gateway). Gateway needs your permission to use the post-withdrawal grant disbursement for all other school charges. If you do not give your permission (some schools ask for this when you enroll), you will be offered the funds. However, it may be in your best interest to allow the school to keep the funds to reduce your debt at the school.

There are some Title IV funds that you were scheduled to receive that cannot be disbursed to you once you withdraw because of other eligibility requirements. For example, if you are a first-time, first-year undergraduate student and you have not completed

the first 30 days of your program before you withdraw, you will not receive any Direct Loan funds that you would have received had you remained enrolled past the 30th day.

If you receive (or Gateway or your parent receives on your behalf) excess Title IV program funds that must be returned, Gateway must return a portion of the excess equal to the lesser of:

1. Gateway charges multiplied by the unearned percentage of your funds, or
2. the entire amount of excess funds.

Gateway must return this amount even if it didn't keep this amount of your Title IV program funds.

If Gateway is not required to return all of the excess funds, you must return the remaining amount.

Any loan funds that you must return, you (or your parent for a Direct PLUS Loan) repay in accordance with the terms of the promissory note. That is, you make scheduled payments to the holder of the loan over a period of time.

Any amount of unearned grant funds that you must return is called an overpayment. The maximum amount of a grant overpayment that you must repay is half of the grant funds you received or were scheduled to receive. You do not have to repay a grant overpayment if the original amount of the overpayment is $50 or less. You must make arrangements with your school or the Department of Education to return the unearned grant funds.

The requirements for Title IV program funds when you withdraw are separate from any refund policy that Gateway may have. Therefore, you may still owe funds to the school to cover unpaid institutional charges. Gateway may also charge you for any Title IV program funds that the school was required to return. Gateway's Office of the Registar can also provide you with the requirements and procedures for officially withdrawing from school.

If you have any questions regarding treatment of your financial aid funds after you withdraw, you may call the Gateway Office of Student Financial Aid at (203) 285-2030.

Order of Return of Student Financial Aid Program Funds

Funds credited to outstanding loan balances for the repayment period of enrollment for which a return of funds is required, must be returned in the following order (not to exceed the original enrollment from each source):

1. Direct Unsubsidized Stafford Loans (other than PLUS loans)
2. Direct Subsidized Stafford Loans
3. Federal Pell Grants for the payment period which a return of funds is required
4. Federal Supplemental Educational Opportunity Grants (FSEOG) for the payment period due which a return of funds is required.

Satisfactory Academic Progress Policy for Student Financial Aid Recipients

A student receiving Federal Title IV financial aid or other financial aid directly administered or certified by the college must maintain satisfactory academic progress towards the completion of a certificate or degree program of study. Satisfactory Academic Progress (SAP) for financial aid recipients is measured by using a quantitative and qualitative standard and is an assessment of a student's cumulative academic record at the college.

To maintain SAP, students must meet the criteria based on attempted credits (see chart below). All attempted credits resulting in either an academic grade or administrative transcript notation will be included in the quantitative calculation. Incomplete courses, course withdrawals, course repetitions, noncredit remedial courses (with appropriate credit equivalency evaluation), and ESL

courses will also be included in this assessment. Transfer credits will be counted as both attempted and earned credits in the calculation for determining SAP.

A student must also maintain a minimum cumulative grade point average (qualitative standard) as noted below to be making satisfactory academic progress and be eligible to receive financial aid.

Academic Requirements

Certificate Standards

Attempted Credits	Minimum GPA	Minimum % Pace
0 - 11.99	0.0	0.00%
12+	2.0	67.00%

Degree Standards

Attempted Credits	Minimum GPA	Minimum % Pace
0 - 11.99	0.0	0.00%
12 - 30.99	1.7	50.00%
31 - 49.99	2.0	50.00%
50 - 59.99	2.0	60.00%
60+	2.0	67.00%

A student's cumulative academic history will be evaluated at the end of each enrollment period and prior to the subsequent term's financial aid disbursement. This policy will be used to evaluate all students, regardless of their enrollment level.

Maximum Credit Hours

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

Repeated/Audit Coursework

Financial aid recipients are limited to one repetition of a previously passed course in their program of study. A second repetition of a previously passed course will not be eligible for financial aid payment. Audit courses are not financial aid eligible.

Financial Aid Warning

Any student who fails to meet the minimum SAP standards will be placed on Financial Aid Warning. The Warning period will be the student's next semester or period of enrollment at the college. The college will communicate the Warning status to the student and inform the student that s/he must meet the academic progress standard by the end of the subsequent enrollment period in order to maintain eligibility to participate in the financial aid programs at the college. Students can access information at commnet.edu.

Add/Drop Period

The Financial Aid Office will adjust any monetary award during the add/drop period if credits are adjusted. If a student chooses to drop a class(es), the financial aid award will adjust and there may be a financial penalty. The student will be required to pay any balance to the Bursar's Office.

Termination

Any student who fails to meet the minimum SAP standards at the end of the Warning period will become ineligible from the financial aid programs at the college. The college will communicate the Termination status to the student and inform the student of the available Reinstatement and Appeal Process.

Reinstatement Policy

A student's financial aid eligibility will be automatically reinstated at such time as the student meets the minimum SAP standards. Reinstatement to the financial aid programs allow students to reapply or reactivate already approved funding (see Appeal Process below).

Financial Aid Probation

Any student who fails to meet the minimum SAP standards at the end of the Warning period will become ineligible for the financial aid programs at the college. Ineligible students can file an appeal regarding their termination from the financial aid programs. Students that have failed the academic progress standards and have been approved with a successful appeal will be considered on Financial Aid Probation.

Appeal Process

A student may request consideration for reinstatement to the financial aid programs through the following Appeal Process:

- If the student feels his/her failure to meet the minimum SAP standards was the result of an unusual or extraordinary situation that affected successful progression, the student may appeal to the Financial Aid Office. Some personal mitigating circumstances could include illness or injury of the student or dependent of the student; a death in the family; or other undue hardship as the result of special circumstances. The appeal form is available in the Financial Aid Office.
- The student must: 1) explain the extenuating circumstances causing the non-compliance; 2) substantiate it with third party documentation, (i.e. letter from the doctor who treated the student); and 3) give a detailed explanation of specifically what has changed that will allow satisfactory progress to be demonstrated at the next evaluation.

- Should an appeal be approved and the student is not mathematically able to return to satisfactory academic progress at the conclusion of subsequent enrollment period, a Financial Aid Administrator will devise and appropriate academic plan for the upcoming semester with the student. For example the terms of an academic plan may be as follows:
  - o Register and successfully complete all credits with a minimum term GPA of 2.0 or better.
  - o At the end of the semester, grades will be evaluated. If the student has met the required terms of the academic plan, the student may continue to receive financial aid the following semester. If the student fails to meet the terms of the academic plan in any subsequent semester, the student will become ineligible to participate in the financial aid programs until the student is able to meet the minimum requirements for SAP. The student's progress will continue to be monitored at the end of each semester with the same terms in place until the student is in compliance with Connecticut Community Colleges' SAP standards.

Incomplete Grades

Financial aid students must complete all grades of Incomplete (I) prior to the beginning of the subsequent semester or their account will be put on a Financial Aid Hold. Eligibility for continued financial aid will be determined only after the receipt of grades.

Withdrawal from School

In general, if a recipient of the Title IV Student Financial Aid Programs withdraws from a school during a payment period or during a period of enrollment in which the recipient began attendance, the school must calculate the amount of federal funds the student did not earn. Those funds must be returned (see Return of Title IV Funds).

If the school determines that a student did not begin the withdrawal process or otherwise notify the school of the intent to withdraw due to illness, accident, grievous personal loss, or other circumstances beyond the student's control, the school may determine the appropriate withdrawal date.

If the student registers for classes but never attends, the student is responsible for all charges incurred.

Scholarships

Foundation Scholarships

Scholarships are available through the Gateway Community College Foundation, Inc., which was formed to assist the College in expanding its services to students and enhancing academic instruction.

The Foundation awards and administers various scholarships in compliance with the policies of its board of directors or at the request of the benefactor. Scholarships are awarded each spring semester to students for use in the following academic year. The GCC Foundation scholarship application is made available online during the spring semester beginning in February. Students can visit gatewayct.academicworks.com to see the list of scholarships available and sign in to apply. For more information, call (203) 285-2617.

Scholarships are available for all students including program-specific scholarships in the Engineering Technology programs, health care and sciences.

For information on scholarships, please visit: www.gatewayfdn.org/scholarships
NewAlliance Foundation, through a generous endowed gift, has established NewAlliance Fellows to be awarded to the two students with the highest GPA accepted into an Allied Health program and into the Nursing program. Awards will cover tuition and fees for the fall and spring semesters following selection.

Scholarship awards are subject to change.

ACADEMIC POLICIES/PROCEDURES AND REGISTRATION INFORMATION

Fall and spring registration dates are established each semester for new and returning students. While every effort will be made to meet the educational needs of each student, registration is conducted on a seat-available basis. Courses listed in the catalog will not necessarily be offered every semester. The College reserves the right to cancel course offerings for budgetary reasons or because of lack of enrollment. Every attempt will be made to notify students if a selected course has been cancelled.

The College offers credit and credit-free instruction during its winter intersession, which runs from late December through early January, and during summer sessions. The exact dates of the winter intersession and summer sessions may be found in the appropriate course schedules that are mailed to area residents, distributed through the Registrar's Office, and online at: GatewayCT.edu or http://www.online.commnet.edu. Courses are open to all Gateway Community College students, students from other colleges, and any interested adults.

Cross-Registration

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

A. **Full-time Students** – Students who have paid full-time student tuition and fees at their "home" institution shall be exempt from further charges. Copies of the student's tuition and fee receipt from the "home" institution should be accepted by the "host" institution in lieu of payment.

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

Change of Address, Email Address, or Name

If you change your address, your email or your name, please notify the Registrar's Office immediately. It is of the utmost importance that the college have the most up-to-date contact information on record. Failure to keep your information current is likely to result in delays in receiving grades and other official correspondence from the college. If you are a current student and not employed by the Community College System, name change requests must be submitted in person to the appropriate office at your college accompanied by Official Photo Identification and a Certified Copy of one of the following:

- Probate Court Decree ordering a name change
- Superior Court Order dissolving a marriage and explicitly ordering restoration of the name of a party
- District Court Order associated with an immigrant becoming a U.S. Citizen
- Marriage License.

NOTE: "Certified Copy" refers to an original decree, Order, or License with raised gold seal or other stamp providing indicia of authenticity, including contact information for the issuing authority.

Changing Your Class Schedule

You are urged to seek advice from an academic advisor if you have any questions about changing your classes. Making changes to your course load or schedule without consulting an advisor may slow progress toward your educational goals. However, the permission of an advisor is not required to change sections of the same course. To add or drop a course, or change to another section of the same course, you must complete the Add/Drop procedure. (See "Add/Drop Procedure".)

Add/Drop Procedure

Add/Drop forms are available in the Registrar's Office and in the Counseling Center. To add or drop a class you must complete and sign the appropriate form during the Add/Drop period, which is published in the current semester schedule. Please note the following procedures:

- Submit the Add/Drop Form to the Registrar's Office during the specified hours, which are posted.
- If there is a seat in the class that you wish to add, you will be entered into the class.
- The signature of an academic advisor or faculty is required for additional courses, but not for time changes.
- You may not register for a closed course without the written permission of the instructor.
- Drop slips must be submitted to the Registrar's Office during the published time frame and do not require an advisor's signature.
- If you drop a course prior to or during the first fourteen (14) calendar days of a semester, you are entitled to removal from the official class roster and the course will not appear on your official transcript.

Please note: Payment is due when a course is added. If no payment is made, the student will be disenrolled from the course. The add/drop dates are strictly enforced; no add/ drops are accepted after the deadline published in the course schedule.

Changing Your Degree Program

If you wish to change enrollment from one degree program to another (e.g., from General Studies to Liberal Arts), you should obtain a Change of Curriculum form from the Student Success Center, Room N213.

To change your degree program, you are required to see a counselor who will explain the procedures for changing your program. (A coordinator's signature is required for several programs; please see the Change of Curriculum form for specifics.) Once signed and approved, the completed Change of Curriculum form must go to the Registrar's Office to be processed. The title of your new program will appear on your transcript. Follow the same procedure if you wish to add a second program of study.

To change from non-degree status to a degree program, a student must provide verification of high school completion and immunization.

Honors

Semester Honors

- Full-time students who are matriculated in a certificate or degree program and who successfully complete 12 or more credits of work in a semester with a grade point average of 3.4 or higher shall be recognized by having their names placed on a Dean's List.
- Part-time students who are matriculated in a certificate or degree program are also eligible for such recognition when they have completed 12 or more credits of work with a cumulative grade point average of 3.4 or higher. They may be subsequently recognized at the completion of an additional 12 or more credits of work with a cumulative grade point average of 3.4 or higher, and at successive intervals of 12 credits.
- A course Withdrawal or Incomplete shall make the student ineligible for Dean's List recognition that semester. Upon completion of the Incomplete, the student may be recognized retroactively.

- Students who are in a probationary status are not eligible for Dean's List recognition, even if their cumulative grade point average might otherwise make them eligible.

Graduation Honors

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

- Highest Honors for students with 3.9 – 4.0 grade point average
- High Honors for students with 3.7 – 3.89 grade point average
- Honors for students with a 3.4 – 3.69 grade point average

Students with an Incomplete may become eligible retroactively for graduation honors upon completion of the course requirements. Recognition shall appear on the transcript, provided that the student has earned the required grade point average.

Phi Theta Kappa International Honor Society

Gateway Community College has an active chapter of the Phi Theta Kappa Honor Society. Phi Theta Kappa is the honor society of two-year colleges. Students are invited to join the Alpha Xi Theta Chapter, as full members if they have completed at least 12 associate degree credits at Gateway and have a Grade Point Average (GPA) of at least 3.5. Qualified students are inducted into the Honor Society during the Phi Theta Kappa Induction Ceremony held each fall and spring. Alpha Xi Theta also accepts provisional members with less than 12 associate degree credits at Gateway or students with 12 associate degree credits at Gateway and have a Grade Point Average (GPA) of at least 3.3.

Statement on Academic Satisfactory Progress

- The grading system employed by each college should accurately reflect the academic achievement of the student. In order to ensure appropriate use of state resources available for the education of its citizens, each college will develop procedures to monitor satisfactory progress through its warning, probation, and suspension policy.
- This policy shall be applicable to all students enrolled in developmental and/or credit courses, no matter the number of credits for which they are enrolled.
- No course may be repeated for credit more than twice. The highest grade received will be used in calculating the student's academic average. This does not apply to those courses that are designed to be repeated for additional credit.
- Satisfactory completion of fifty percent of the credits attempted (this phrase means actual continued enrollment beyond the add/drop period) will be the minimum standard for good standing.

Academic Warning

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

Academic Probation

- A student placed on academic probation will be (a) required to take a reduced course load for one semester; and (b) acquire a "C" average, or better, in courses attempted during given semester in order to show academic progress.
- When appropriate,, credit limit increase is initiated through the Student Success Center.

Academic Suspension

A suspended student must wait at least one (1) semester before registering for courses. After academic suspension, students who wish to enroll again must comply with the following criteria: (a) receive academic advising, (b) acquire a "C" average in courses attempted during given semester in order to show academic progress and (c) be limited to a maximum of two (2) courses until a 2.0 accumulative GPA is achieved. The process to appeal the required semester suspension is initiated through the Student Success Center. If not satisfied with that decision, the student may initiate an appeal to the Dean of Student Affairs.

Academic Integrity

At Gateway Community College we expect the highest standards of academic honesty. Academic dishonesty is prohibited in accordance with the Board of Regents' Proscribed Conduct Policy in Section 5.2.1 of the Board of Trustees' Policy Manual. This policy prohibits cheating on examinations, unauthorized collaboration on assignments, unauthorized access to examinations or course materials, plagiarism, zero tolerance for threatening, intimidating, and violent behavior, and other proscribed activities. Plagiarism is defined as the use of another's idea(s) or phrase(s) and representing that/those idea(s) as your own, either intentionally or unintentionally. (Excerpted from the Board of Trustees Policy 5.2.1, amended 2/26/90). In addition, at Gateway Community College, unauthorized use of any electronic device to convey information during examinations and all other forms of assessment is considered academic dishonesty.

Academic Standards

A student with a GPA of 2.0 or higher is considered in Good Standing. Only students in Good Standing may register as full-time.

> To remain eligible for continuation of studies, students must maintain a cumulative grade point average (GPA) equal to or above the minimum stated in the Academic Standards criteria for the number of credits they have completed.

11 or fewer credits with less than 1.5 GPA	Written Warning
12 - 30 credits inclusive with less than 1.7 GPA	Written Notice of Academic Probation – Reduced Course Load
31+ credits with less than 2.0 GPA	Written Notice of Academic Probation – Reduced Course Load
31+ credits with one semester probation earning less than 2.0 GPA	Written Notice of Academic Suspension

Course Load

A full course load will normally consist of four to five courses, 12 credits or more depending upon the student's major and degree of academic preparedness. Students wishing to take more than the normal course load for their major during the second or subsequent semester may, provided they have maintained an average of 3.0 or better during the preceding semester, register for one additional course upon the recommendation and approval in the Student Success Center. All appeals regarding course load must be made to the Dean of Student Affairs.

Course Substitution

The substitution of a course requirement with another similar course must receive permission from the appropriate department chairperson, program coordinator or the Dean of Academic Affairs. A Course Substitution Form must be completed with the appropriate department chair or program coordinator's signature.

Grading Policy

(Modified 9/9/20 per BOR Policy 4/16/20)

All colleges will use the same system of values for grades awarded. Values to be used for all calculations of grades, averages, and related matters, are as follows:

A	4.0	C	2.0		Temporary Grade: I - Incomplete
A -	3.7	C-	1.7		Administrative Transcript Notations:
B +	3.3	D+	1.3		
B	3.0	D	1.0	AU	Audit
B -	2.7	D-	0.7	P	Pass
C +	2.3	F	0.0	UF	Unearned F (did not attend)

The Grade Point Average (GPA) shall be calculated to two decimal places, based on quality points and the number of credits attempted.

To determine the number of quality points earned in a course, a student's numerical grade is multiplied by the number of credits associated with the course (semester hours). The total of all quality points earned by a student is then divided by the total number of credits attempted. The result is the student's GPA. Reports of the final grades for the semester may be obtained online through My Commnet at www. mycommnet.edu.

Students enrolled in non-credit courses through Corporate and Continuing Education are awarded Continuing Education Units (CEUs) on a Pass/Fail (P/F) basis.

Temporary Grade

I - Incomplete

1. An Incomplete is a temporary grade assigned by the faculty member when coursework is missing and the student agrees to complete the requirements. Although a student may request an Incomplete, the faculty member is not required to honor the request. The faculty member should assign an Incomplete when there are extenuating circumstances such as illness that prevent a student from completing the assigned work on time and the student has completed most of the course requirements and, in the judgment of the faculty member, the student can complete the remaining work within the time limit established by system policy.
2. A faculty member who assigns an Incomplete shall file a system report form that includes:
   a. a brief description of the requirements to be completed;

  b. the date by which the coursework must be submitted to the faculty member, which is the end of the tenth week of the next standard semester;

  c. a statement that the Incomplete will change to a specified letter grade if the work is not completed by the end of the tenth week of the next standard semester.

   The faculty member shall keep the original signed form, with copies to the student, the academic dean, the registrar, and such other appropriate parties as the college may identify.

3. All Incompletes must convert to a letter grade by the end of the following semester. If a student submits the required work on time, the faculty member shall calculate a grade to replace the Incomplete and submit it to the registrar by the end of the 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 registrar shall convert the Incomplete to the letter grade specified in the report form, and that letter grade shall be entered on the student transcript.

4. 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 that the student has earned the required grade point average.

 Students in a Allied Health or Nursing program (Diagnostic Medical Sonography, Fitness Specialist, Nuclear Medicine, Radiation Therapy, Radiography) must complete all required course prerequisites before registering for any program-specific math, science, and/or Allied Health or Nursing courses.

Administrative Transcript Notations:

"AU" - Audit

An administrative transcript notation for students auditing a course.

Students not wishing credit may audit a course. This status will allow them to participate in class activities without being required to meet the examination requirements of the course. Students may ask to have papers critiqued, but faculty members are not required to grade an auditor's course work. Full tuition and fees are charged for courses audited. A student who wishes to change from credit to audit status must request this within the first four weeks of the course, using such forms and procedures as the college may prescribe. Students auditing a course may not change to credit status.

Audited courses may be repeated in a subsequent semester for credit by re-registering and paying the appropriate tuition and fees. The structure of the course should not be altered in consideration of the number of students auditing the given course.

"M" - Maintaining Progress (added 9/9/20 per BOR Policy 4/16/20)

Used only for developmental courses to indicate that the student is maintaining progress, but not at the usual rate. It may be given to a student for a course only twice.

"P" - Pass

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

With the permission of the instructor, a student may take an elective course on a Pass/Fail basis. Any student who has satisfactorily completed at least 12 credits may take advantage of the Pass/Fail option. The student must notify the Records Office in writing of this intent no later than one week following the Add period. Upon completion of the course, the student will receive a grade of "P" or "F." No other grade will be reported. The "Pass" grade will entitle the student to an appropriate number of academic credits toward graduation. A "Pass" will not be computed in the student's quality point average (GPA). Only one academic course may be taken under the Pass/Fail option during a semester.

All clinical courses in the Radiologic Technology programs are offered only on a pass/fail basis.

"UF" - Unearned Failure (Removed 9/9/20)

~~This notation is awarded to students who were enrolled in a course, did not officially withdraw, but who failed to participate in course activities through the end of the term. It is used when, in the judgment of the instructor, completed assignments and/or course activities were insufficient to make normal evaluation of academic performance possible.~~

"TR" - Transfer

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

"W" - Withdrawal from a course

An administrative transcript notation used to indicate that a student is withdrawn from a course in accordance with the procedures prescribed by the college.

Students who withdraw officially from semester credit courses through the Records Office within the first fourteen calendar days of the fifteen-week semester will be removed from class rosters. Students withdrawing after the first fourteen calendar days but before the end of the tenth week will receive a grade of "W". A student with a grade of "W" will be ineligible for academic honors for that semester.

During the Summer/Winter sessions, students who withdraw prior to the first day of the credit course will receive no grade for the course. Generally, if a student withdraws after the first class and prior to the last date of withdrawal for each Summer/Winter session, the student will receive a grade of "W". Please consult the Records Office. Students are encouraged to carefully read the academic calendars for each Summer/Winter session.

After the above deadlines have passed, withdrawal from a course may be granted and recorded on the student's permanent record as "W" if extenuating circumstances are found to justify the withdrawal.

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

"F" grades are calculated in the quality point average. To be official, all withdrawals must be received and processed by the Records Office.

"*" - Grades with an asterisk"*" (before the Fall 2004) or **"^"** - Grades with a carrot "^" (starting with the Fall 2004)

These administrative transcript notations indicate the Fresh Start Option has been invoked. Those grades will not be calculated into the student's GPA, but any course in which the student received a grade of C- or above can be used to satisfy graduation requirements.

"#" - Grades with a pound sign "#"

This administrative transcript notation indicates the courses are developmental and do not carry any credit for graduation nor are calculated into the student's GPA.

Academic Engagement

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

Required Activity Prior to Census

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

Students Who Begin a Period of Enrollment

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

Students Who Do Not Begin a Period of Enrollment

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

NP – Never Participated

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

Academic Engagement

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

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

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

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

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

Faculty Office Hours

Faculty members are willing to meet with you to discuss individual concerns or to provide assistance. At the beginning of the semester, each of your instructors will provide you with his or her office hours, office location and phone number. If you want to

consult a faculty member, it is best to make and keep a specific appointment. You can, however, stop by the faculty member's office during his or her listed hours.

Faculty Out Hotline

Instructor-Out Hotline: 866-315-2769

To check if your instructor is going to be absent, you may call the hotline prior to class. If a faculty member is going to be late or cannot meet due to an emergency, he or she should make every effort to inform you. Many faculty members will notify you during the first class sessions about how such situations will be handled. In the event that a faculty member is more than 20 minutes late arriving for class, you may:

- Go to the Dean of Academic Affairs (N321), the Evening Administrator (N104) or the office of the department chair for that academic area for guidance.
- Circulate an attendance sheet with the course number and section for each student to sign and submit it to one of the officials above. You are free to leave if you have received no other directions.

Attendance

By enrolling in classes at Gateway Community College, you accept responsibility to take full advantage of your educational opportunity via regular attendance in your scheduled classes and laboratories. The college, therefore, does not administer a uniform system of monitoring attendance. For purposes of record keeping, all instructors keep their own attendance records.

At the beginning of each semester, each instructor will delineate clearly the expectations necessary for the successful completion of the course. All students are expected to meet the academic obligations outlined in the syllabus, or to assume the risks incurred by failure to do so.

Enrollment Status

Degree students are those who have satisfied admission requirements and are enrolled in a planned program of study that will result in a certificate, Associate in Arts, Associate in Science, or Associate in Applied Science degree. Nondegree students take courses but do not wish to be enrolled in a planned program of study leading to a certificate or degree. Any student may apply to a degree program at a later time. For instructions on how to do so, please refer to the regular application procedures.

Full-time students enroll for 12 credits or more. Part-time students enroll for 11 credits or less. Full-time students may take a fifth credit class. Students registering for more than 17 credits must pay a nominal fee of $100.

Fresh Start

1. Colleges shall have a policy called Fresh Start, which will allow students who have not attended college for a period of two or more years and who have a poor academic record to refresh their Grade Point Average (GPA) and develop a more favorable academic record. Students accepted for enrollment under Fresh Start will meet with a designated college official to determine their academic status for re-entry into the college.
2. All grades previously earned will remain on the student's transcript. The semesters for which Fresh Start is invoked will include a transcript symbol indicating that the policy is in effect. The original GPA will not be included in any subsequent computation of the new GPA. If the Fresh Start option is approved, the student will receive credit for courses with a grade of C-minus or above, including "P" (Pass).
3. The Fresh Start option can be used only once.
4. The Fresh Start option does not apply to any completed degree or certificate.

5. A student must complete a minimum of 15 credits after returning to college under the Fresh Start option to be eligible for a degree or certificate, and for graduation honors.
6. Each college is responsible for developing its own procedures for managing Fresh Start, including where and how the student applies, what forms are used, who approves the application, and how the student's progress is monitored.

Withdrawal from Individual Course(s)

If you wish to withdraw from a course, you should understand the policies outlined below.

- **DO NOT SIMPLY STOP ATTENDING CLASSES**. Students who stop attending classes rather than officially withdrawing from a course may be subject to probation, suspension or dismissal. This has a permanent impact on your official college transcript.
- You are encouraged to speak to an advisor or counselor before withdrawing from a course. To withdraw from a course, obtain a Withdrawal form from the Registrar's Office or the Student Success Center. In addition, please note the following policies:
- A student who wishes to withdraw from individual course(s) may do so up to the tenth week of class. After the tenth week, and prior to one week before the last day of classes, withdrawals are permitted only with the signature of the instructor.
- If you withdraw from a course after the ADD/DROP period, you will receive a grade of "W" in each course.

Withdrawal from the College

A student who wishes to withdraw from the College may do so by the last day of classes by contacting the Registrar's Office and completing the withdrawal process. (Deadline date are outlined by the Registrar's Office) A grade of "W" will be given for each course not completed at the time of withdrawal. A student must complete a readmit application if he/she desires to return to the College after a two-year time period.

Repeating a Course

Student may not enroll in the same course more than three times. Please note that current Financial Aid policies only allow for payment of the same course for two attempts. If a course is repeated, the highest grade received will be used in calculating the student's academic average. This does not apply to courses that are designed to be repeated for additional credit.

Individualized Instruction

Students and instructors may arrange for individualized instruction in a catalog course not offered in a given semester. An Individualized Instruction Permission form shall be completed and signed by the student, the instructor, the Department Chair, and the Dean of Academics. This form, available in the Records Office, may be submitted during registration but no later than the end of the Add/Drop period.

Independent Study

Independent Study provides special opportunities beyond the course offerings of the catalog. To be eligible, a student's cumulative grade point average must be 3.0 or better.

Interested students must fill out an Independent Study form, describing the objective(s), justification of the study, nature of the learning outcomes, learning methodology, and evaluative criteria. After the form has been completed, it must be signed by the instructor and the student. The student must then submit the form to the Office of Dean of Academic Affairs for final approval.

The student must also obtain an Add slip from the Registrar's Office or the Student Success Center, in order for the study to appear on the student's record. Upon completion of the independent study, a brief written evaluation will be attached to the student's permanent record. This evaluation will be submitted to the Registrar with the grade report.

Students shall be limited to three (3) Independent Studies at GCC. Only one (1) Independent Study may be taken per semester. No Independent Study may begin in the student's first semester.

Technology Statement

Success in personal, academic, and work environments requires the acquisition and use of information and technological literacy skills. The Connecticut Community College system is committed to providing experiences to help you achieve that success. In many of the courses offered at Gateway Community College students may be required to perform some or all of the following technology-focused activities during and/or outside scheduled class time:

- Access course materials (including assignments, readings, audio or video recordings, or tests) using Blackboard and/or the Internet,
- Perform research using the Internet and online databases,
- Complete class assignments in word-processed or other computer-generated format, or through the use of other technology as designated by the instructor,
- Communicate electronically with the instructor or other students in class.
- See your instructor for specific technology requirements

Distance Learning (DL)

Phone#: 203.285.2570

Email: GW-DistanceLearning@gatewayct.edu

Coordinators: Lynn Roller and Don Walker

Gateway Community College offers numerous courses utilizing the Blackboard Learning Management system available to Connecticut Community College students. Blackboard allows instructors to post materials, messages, tests, assignments, grades, and to communicate with students online. Various courses delivery methods use Blackboard:

- ONLN: instruction and learning conducted fully online
- OLCR: online instruction with orientation and testing conducted on campus
- HYBR: a blend of on campus and online instruction, reducing the amount of "seat time" in the classroom (40% on campus-60% online)
- Web-Enhanced: traditional on campus class that utilizes online material to enhance the course

Online courses/presentation is similar to a traditional on-campus class. All the elements of the course are maintained; instructor, classmates, syllabus, course material/content, textbooks, lectures, discussions, tests, assignments, due dates/times, and grades. Student can expect to spend the same amount of time on the course material as in a traditional course.

For example, a traditional 3-credit would meet for class on campus for 3 hours per week. Instructors generally expect 1 to 2 hours of out-of-class work for each hour spent in class, for a total of 9 to 12 hours per week. The 3 hours of class time is spent online, these courses are not generally self-paced which means student must adhere to the dates/times outlined on the course syllabus.

Characteristic of a successful online student:

- Highly motivated, organized, independent learners
- Possess good time management skills

- Have good reading, writing, and communication skills
- Be able to perform basic computer literacy skills
  - Keyboarding, web browsing, word processing, email, attaching files, etc.)
- Have regular and reliable access to a computer with internet access

Students automatically receive a system email with helpful introductory information when they register for an ONLN, OLCR, or HYBRID course. Be sure to check your GCC email on a regular basis for important notices.

Please check the GCC Distance Learning web page for support: http://www.gatewayct.edu/Offices-Departments/Academic-Affairs/Distance-Learning

Please contact the Distance Learning faculty with any comments, questions, or concerns. Student orientations and guidance is available throughout the semester.

Prior Learning Assessment (PLA)

In addition to earning traditional credit through completion of college courses, students may earn up to 30 credits for knowledge acquired outside the college classroom from such experiences as paid or volunteer work, on-the-job training, vocational training, hobbies or self-initiated study. In general the college awards credit when a student demonstrates competence in areas that are required in the student's program of study. A student can demonstrate competence through the following methods of assessment.

- **Standardized Tests** such as Advanced Placement Exams, given during high school administered by College Board or College Level Examination Program (CLEP), also administered by College Board, enable students to earn college credit in academic disciplines ranging from mathematics to foreign language by achieving sufficient scores on either exam. Test results must be submitted directly to the Admissions Office for review and acceptance of credit. Information about exams and registration procedures is on the College Board website, www.collegeboard.com/clep. A transcript of each exam must be sent directly to the admissions office for review. Credits earned through this method can be sent directly to other institutions for review upon transfer however, acceptance is at the discretion of the receiving institution.
- **Credit for Previously Evaluated Training** for instance, by the military or professional organizations and associations, can be earned if the program has been previously evaluated. Charter Oak State College and the University of the State of New York have evaluated many training programs offered by public and private noncollegiate organizations in Connecticut and New York. In accordance with Board of Trustees policy, GCC will award credit to students who have successfully completed non-collegiate sponsored instruction and various health training programs including: the Basic Police Training Program conducted by the Municipal Police Training Council; training conducted by the Commission on Fire Prevention and Control and Bureau of the State Fire Marshall; the Pre-service Orientation Program conducted by the Connecticut Department of Corrections; the American Institute of Banking Program of the American Banking Association; and Licensed Practical Nurses are eligible for advanced placement in the Nursing program based on the Connecticut Articulation Model for Nursing Education Mobility. Students should first petition the Admissions Office for direct award of credit. Students can also utilize the PLA Credit for Prior Training program coordinated by Charter Oak State College by visiting www.CharterOak.edu. Credits earned through previously evaluated training can be submitted to other institutions for review upon transfer however, acceptance is at the discretion of the receiving institution.
- **Assessment by Examination** allows students to earn GCC credit for courses that address GCC graduation requirements. A faculty member chosen by a Department Chair/Division Director and approved by the Dean of Academic Affairs develops and administers the exams. Qualified faculty administer individual tests to determine whether a student will be awarded credit without having taken a course. Contact Career Services at (203) 285-2144 to determine whether an examination has been approved for a course, to obtain the Credit by Examination application or for more information about the process. To apply to take an exam in one or more courses, a student must submit a Credit by Examination form for each course to the chairperson of the department or program coordinator in which the course is offered. The student must state on the form how the relevant knowledge was gained. The department chairperson designates a faculty member who, upon approval by the Academic Dean, administers the exam. The

Academic Evaluation Fee is $15 per test. Credit earned through Assessment by Examination is institutional credit, it can be applied to graduation but is not typically transferred out to other institutions.

- **Assessment by Portfolio** allows students to demonstrate competence in one or more courses in their program of study. The student must compile a portfolio that includes relevant leaning experiences, detailed descriptions of skills corresponding to competencies taught in the college courses, and relevant supporting documentation as defined by faculty assigned to oversee the process. The Department Chair and/or Program Coordinator will designate a faculty evaluator approved by the Dean of Academic Affairs. The Portfolio Assessment fee is $50. Contact the Career Services Office at (203) 285-2144 to obtain more information about the process. Students can also utilize the PLA Portfolio assessment program coordinated by Charter Oak State College by visiting www.CharterOak.edu. Credit earned through portfolio submission is institutional credit, it can be applied to graduation but is not typically transferred out to another institution.

Graduation

Graduation is NOT automatic! The final responsibility for meeting program requirements rests with the student. Students are strongly encouraged to see a counselor to verify their eligibility for graduation PRIOR to the start of their last semester.

1. The Student Success Center reviews and evaluates student transcripts for graduation. Students enrolled in degree programs should request an initial transcript evaluation after earning thirty (30) credits. Students enrolled in certificate programs should request an initial transcript evaluation after earning nine (9) credits or completing one-half (1/2) of the requirements.
2. Students should complete a preliminary graduation audit online at the Student Success Center. An official graduation audit is then conducted by the Records Office. Student MUST submit a graduation application by the posted dates in order to be audited and awarded a degree.
3. A candidate for graduation will be evaluated under the most appropriate catalog, as follows:
    A. **For** DEGREE STUDENTS **- the catalog under which the candidate first enrolled shall be used to determine graduation requirements, except in the following cases:**
        1. If the candidate was readmitted to the College after an absence of four or more consecutive semesters, the catalog under which the candidate was readmitted shall be used.
        2. When the candidate changes programs during attendance, the catalog in use at the time of the last change in program shall be used.
        3. If there has been a change in the General Education requirements of the program, the candidate must fulfill the new requirements prior to graduation.
        4. The Registrar's Office determines that either the catalog of readmission or the current catalog should be used for graduation.
    B. **For** CERTIFICATE STUDENTS **- the catalog in force at the time of enrollment shall be used, unless the Registrar determines that either the catalog of readmission or the catalog of graduation should be used.**
4. To graduate, a student must: (1) have a cumulative quality point average of at least 2.0; (2) have the minimum semester hours of credit; and (3) successfully completed the required and elective courses as designated by the curriculum, and (4) fulfilled all financial obligations to the College.

Awarding of Multiple Associate Degrees

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

3. Requests for additional degrees beyond the second require approval from the academic dean. Students who receive approval must then complete all program requirements, including earning a least twenty-five (25) percent of the minimum requirements from the new curriculum at the college through which the degree is to be conferred.
4. Completion of the requirements of an additional program option does not automatically constitute completion of an additional degree.

Transcripts

Students desiring to have official transcripts of grades mailed to other educational institutions must complete a Request on mycommnet or a Request of Transcript form in the Records Office. The form may be downloaded from the www. GatewayCT.edu website. **Official transcripts will be mailed directly to other educational institutions.** One to two weeks are necessary to process such requests. Two weeks before and after a semester begins or ends, it will be a minimum of two weeks to process. No official transcripts may be picked up.

Transfer Programs

Gateway is committed to assisting students in obtaining their educational goals. Should those goals include transferring an associate's degree to a four-year institution, students may transfer to any college or university they choose. Students may have a lot of questions, such as whether their courses will transfer or whether they can change majors. If students have questions or are unsure of where to transfer for their bachelor's degree, they should meet with an Advisor in the GCC Student Success Center or a designated Faculty Advisor to develop a transfer plan.

Transfer Opportunities at Gateway

Connecticut State College and Universities (CSCU) Transfer Ticket Degrees

CSCU's Transfer Ticket are new degree programs providing pathway for community college students to complete degree programs that transfer to Connecticut State Universities (Central, Eastern, Southern, and Western) and Charter Oak State College without losing any credits or being required to take extra credits in order to complete a bachelor's degree in that same discipline. You will be able to transfer, apply to competitive admissions majors, and complete your BA/BS degree in the same time and with the same course requirements as students who start at a CSU or COSC.

The Transfer Tickets taking effect in the fall 2017 are:

Accounting	French`
Art	History
Biology	Italian
Business	Management
Business Administration	Marketing

Chemistry	Mathematics
Communication	Physics
Computer Science	Political Science
Criminology	Psychology
Early Childhood Teacher Credential	Social Work
English	Sociology
Exercise Science	Spanish
Finance	Theater

Please visit www.ct.edu/transfer for details

Gap Program to University of Connecticut (UCONN)

The Guaranteed Admission Program (GAP) is an agreement between the Connecticut Community College System and the University of Connecticut designed for students who plan to earn a bachelor's degree in either Liberal Arts and Sciences or Agriculture and Natural Resources. To be eligible for the GAP program, students must have earned 16 or fewer credits at Gateway and be enrolled in our Liberal Arts and Science degree program. To find out more about GAP or to sign up for the program, see Dr. Lauren Doninger, Room S124C, (203) 285-2601.

College of Technology (COT) Engineering Pathway

The Engineering Science Pathway program allows community college students to follow an integrated curriculum at Connecticut's public and private colleges and universities, allowing individuals to begin their studies at Gateway Community College and progress directly into a bachelor's degree program at a 4-year university. The curriculum consists of two distinct pathways: engineering and technology. For more information please contact Professor Susan Spencer, Room S401E, (203) 285-2452. The student may transfer to the following institutions:

- University of Connecticut
- School of Engineering at the University of Hartford
- School of Engineering at the University of New Haven
- School of Engineering at Fairfield University
- School of Technology at Central Connecticut State University
- Charter Oak State College

RN to BSN/MSN Pathway

Students completing their RN program at GCC have many options via system wide articulation agreements. Graduates of the Connecticut Community College Nursing Program (CT-CCNP) have the opportunity to continue their education at a number of

baccalaureate and advanced degree programs throughout the state and beyond. For a complete list, visit www.ct.edu/academics/nursing#agreements.

LEARNING SUPPORT SERVICES

Bookstore

Telephone: (203) 865-5614
Email: 0809mgr@fhey.follett.com
Website: www.gctc.bkgtr.com

The bookstore carries all course textbooks, other reading materials, art and science supplies, notebooks and school supplies, sundries, snacks, clothing, gifts, and other items of interest. The operating hours of the college bookstore are flexible, thereby providing services to both day and evening students.

Center for Educational Services

Telephone: (203) 285-2217 or (203) 285-2519

Hours of Operation: Monday - Thursday 8:00am - 8:00pm; Friday 8:00am - 4:30 pm

The Center for Educational Services (CES) provides academic support services for the students. The CES provides tutorial assistance and related services to help students become better skilled in selected areas. Tutoring is available in Math, English, ESL (English as Second Language), Physical Sciences (Biology, Chemistry and Physics) Accounting and Business. Computer assisted tutorials are especially useful for review and practice of basic skills in ALEKS is available for all the students. Tutoring is provided for most courses on a small group basis, as available. All students are welcome in the center and are encouraged to use any of the services. Call to obtain information on office hours. Please keep in mind that budget restrictions limit the resources available each semester and therefore services are most available early in the semester and can quickly become limited.

Tutoring

Students enrolled in courses at the college may receive free tutoring. Tutoring is provided for many entry-level courses at the college on a small group basis, as available.

Placement Testing

The college welcomes students with different levels of academic preparation. The college believes that proper course selection is one of the keys to academic success. All first-time, degree or certified students are required to take a Placement Assessment in Reading, Writing, and Mathematics. Placement Assessments are also available for students who have limited English proficiency. (Please refer to the English as a Second Language course description.) Test results are used to advise students into appropriate courses.

Placement Re-Testing Policy

Students wishing to register for courses beyond the Placement Test recommendation (ACCUPLACER) must get faculty approval from the Math and English Department. The department may elect to administer a local placement assessment. Faculty may then recommend a placement course consistent with the local test results. Students who wish to further challenge the placement outcome may request this from the department chairperson or the dean of the Students in the absence of the department chair.

Students may authorize re-testing with ACCUPLACER. Retesting will be schedule at a time allotted by the placement coordinator, which will not displace first-time test takers. *Bootcamp students are exempt from the test re-taking policy.

Exam Proctoring

The CES provides in-house proctoring services to all faculty members. Please contact us for more information.

The CES now provides distance proctoring for online and paper-based exams from other institutions. Exams are by appointment only and must be scheduled and completed without our normal proctoring hours. Proctoring Services are provided at $50/2 hrs. To schedule an appointment please contact the CES department at (203) 285-2218..

Please note that children are not permitted in the CES.

College Writing Center

Coordinator (203) 285-2245

Offering non-evaluative feedback, on any reading or writing assignment across the college-level curriculum, Writing Center tutors devote 45 minutes to working with individual students at any stage of their composition process. Tutors can coach students in narrowing a topic, finding a focus, developing content, organizing ideas, and improving style and correctness; they can also clarify APA and MLA guidelines for properly formatting papers as well as for citing and documenting sources. In collaboration with students, tutors identify, prioritize, and address the issues an assignment's draft presents. Their goal is to enhance a student's re-writing and editing skills and support that student in applying those skills independently before he/she submits the final paper to its ultimate audience, the professor who will grade the essay. The Center opens the second week of each semester; find operating hours on the electronic bulletin boards location around campus. For more information, contact the Writing Center at 203.285.2245.

Computer Resources

Computer-equipped classrooms and laboratories for the college curriculum and workshops are located conveniently throughout the campus in both the North and South buildings. All computers are linked by a high-speed network that provides access to printer, internet and other necessary computer services.

The campus has more than 30 computer classrooms. There are general purpose computer classrooms designed for the college's general curriculum, and program-specific computer classrooms for Computer Science, Allied Health, Nursing, Engineering and Graphic Design programs. We utilize more than 100 industry-standard programs for the curriculum, including Microsoft Office, Adobe CS, Autocad, Keyboarding Pro, Visual Studio, SmartCam, and MultiSim. Macintosh computers are also available on a programmatic basis to assist students. The college also has specialty laptop carts that can be brought into lecture classrooms when needed and laptop carts dedicated to the Science labs.

There are three open computer labs on campus located on the second and third floors in both the North and South buildings. At least one open lab is available when the college is open. Hours may vary by lab.

The student service area features more than 30 self-help kiosks that are designed to assist students in retrieving their campus-related information. These kiosks are located throughout the Student Services corridor and enable students to access their information using the myCommNet portal and their NetID.

The Library features more than 35 computer stations in the Learning Commons area where students can work on assignments or conduct library research. There is also a Library instruction classroom with 32 computers where students are taught by librarians how to properly utilize all library-related resources. The Library also houses the student laptop loaner program which has 30 laptops that can be loaned out for in-library use only.

The wireless network is available throughout the campus and allows a student to connect and access the internet using their personal wireless device (laptop, tablet, or smartphone). Just use your NetID and password for connection.

Educational Technologies

Telephone (203) 285-2268

The Office of Educational Technologies provides support to motivate and enable the College to enrich the learning process through technology. The office serves as a campus resource for information on emerging and evolving educational technologies, coordinates comprehensive media services, and assists in the electronic dissemination of information.

The office coordinates and/or provides support for the following:

- Videoconference Center
- College Website
- Audio-Visual Equipment
- Assistance in Multimedia and Video Production
- One-on-one or group instruction on presentation technology and other computer applications
- Campus-wide Electronic Message System
- Faculty/Staff Training
- Student Computer Laboratories

First Niagara Library and Learning Commons

Telephone (203) 285-2057

Gateway Community College maintains a full service library which provides a variety of print and electronic resources that support and supplement the curriculum of the college. In addition to the main collection, the library houses special collections, including the African American History Collection, the Early Childhood Education Model Collection and the Small Business Resource Center. The complete listing of the library's collections is available through the online public access catalog. The library also offers group and individual study rooms, collaborative pods (C-pods), laptops for use in the library, graphing calculators, headphones, and wireless Internet access. In addition, the library houses computers with internet access and Office Suite. Professional librarians are always on hand to assist users with their academic needs. Research appointments with a librarian can be made for in-depth assistance lasting up to one hour.

Electronic Resources

The library homepage provides links to research tools, the online catalog, library information, and more. Research databases containing full-text articles from journals, newspapers and reference books provide academic support in all disciplines. These and other electronic resources may be accessed by Gateway students, faculty or staff on-campus via the library's homepage or off campus 24/7 using your NetID and password. The college library website address is: http://www.gatewayct.edu/library

Information Literacy

Information literacy is defined as the set of skills needed to find, retrieve, analyze, and use information. Library staff members provide information literacy instruction in every academic discipline. Specialized introductions to specific resources and/or searching techniques for individuals, small groups, or classes may be arranged. Faculty can access library instruction appointment forms under "Request Instruction Class."

Borrowing Privileges

Borrowing privileges are granted to full and part-time faculty and staff, alumni, and all students currently enrolled. Public borrowing privileges are granted on request, with certain restrictions. Your Gateway Community College identification (I.D.) also serves as your library card. The normal circulation period for books is four weeks for students and three months for faculty and staff. Renewals can be arranged in person, by phone, or online. If a borrower does not return items on time he/she will be billed for the cost of replacement plus a processing fee. If a student fails to comply, this may result in a loss of borrowing privileges, withholding of diploma, denial of transcript requests to other institutions, and refusal of re-registration.

Service Desk

The Service Desk on the main floor is a central point for many library services, including:

- Self-check-out and Return of all Materials
- Reference and Research Help
- Computer Help
- Reserve Materials
- Interlibrary Loan Services
- Request for Information Literacy Instruction class

Staff will be happy to assist all users with information needs. Questions can be submitted in-person, by phone, email, text, or instant messaging. Come in and browse!

STUDENT SUPPORT SERVICES

Student Engagement and Career Development

Athletics and Intramural Sports

Telephone: (203) 285-2213

Gateway Community College is a member of the National Junior College Athletic Association, Region XXI (NJCAA), and abides by its eligibility rules and code of ethics. Inter-collegiate team sports include men's and women's basketball. All intercollegiate student athletes must maintain a minimum of a 2.0 grade point average and carry at least twelve (12) credits per semester as well as abide by all policies stated in the Student Athlete Guidelines. Contact the Director of Athletics by calling (203) 285-2213.

Career Services

Telephone: (203) 285-2144

The mission: Career Services exists to educate and empower students and alumni throughout their lifelong career development journey. We provide personalized and innovative services, resources and technology that ultimately prepares students to make optimal use of their knowledge, skills and abilities in order to compete globally for the career they deserve.

We offer individual instruction and consultation on a variety of topics including: career planning, job search strategies, resume writing, interviewing and workplace success. Career Services staff provide classroom instruction along with a variety of workshops and seminars throughout the year. Whether you are an experienced professional or new graduate entering the workforce for the first time, Career Services can assist you in reaching your career goals.

The online job board: MyGateway Job Search http://gcc-csm.symplicity.com/.

Career Counseling

Career counseling is available to prospective or current students, including those in the General Studies curriculum, who have not decided on a college program or career direction. Career counseling helps students to identify career possibilities and move toward a decision.

Interest Testing

A student may take, free of charge, written interest inventories and other career tests. The results usually help to identify specific career areas of interest for the student to explore.

Occupational Information

Career Services maintains information on career fields to help students develop their career plans. Information on occupations, colleges across the country, and sources of financial aid can be obtained from the *Choices* computer system.

Employment Services

An online service, *MyGateway Job Search csm*, is available on the Career Services page of the College website. This service enables students and graduates to seek employment by searching for job listings and registering their resumes. Job postings also are maintained in notebooks in both Career Services offices. Employers can list full-time, part-time, seasonal job openings, and volunteer opportunities with the Career Services office, visit the College individually, and attend Job Fairs.

Job Search Skills

Career Services offers personal assistance and group workshops related to job search skills including resume writing, interviewing, networking, and job-seeking strategies. A series of over 75 *JobShop* handouts is available. Students may use computers in the Career Services offices on both campuses to write resumes and letters.

Gender Equity Center

Telephone: (203) 285-2412

The Gender Equity Centers offers a welcoming space that endorses a supportive and nonjudgemental atmosphere. The center offers education, awareness, and prevention programming on issues pertaining to sexual violence, stalking, intimate partner violence, and gender equity. The Gender Equity Coordinator is available to meet and provide positive victim-centered crisis counseling, advocacy, referrals, and resources. In addition to being able to provide the rights and options for those dealing with acts of sexual violence, intimate partner violence, stalking and gender equity related to gender based violence, survivors of sexual violence, intimate partner violence, stalking, acts of bias based on sexual orientation, women's health, sexual orientation and identity.

Student Activities

Telephone: (203) 285-2208

As the center of student activity, the Office of Student Activities is an integral part of the educational mission of Gateway Community College. By offering a variety of programs and services that meet the needs of the Gateway Community, we create an environment for individuals to interact and learn from one another. We provide opportunities for student, faculty, and staff involvement in campus life and community service.

The Office of Student Activities, a student-centered organization, values participatory decision making, self-directed activity, and the open exchange of ideas. Through service to the campus community in student governance and leadership, we foster interactive and developmental experiences in leadership and social responsibility. Furthermore, we enhance the academic experience through an extensive array of cultural, educational, recreational, social, and leadership programs. Student activity fees fund the student activities program within the framework of a yearly budget approved by the Student Government Association.

Student Government Association

Gateway Community College has a Student Government Association (SGA) whose members are elected annually by the student body. The SGA serves to promote good citizenship and harmonious relationships throughout the college and the community. It serves to provide a forum for student representation and to provide orderly direction of college activities. The Student Government Association is responsible for the allocation and distribution of the Student Activity Fund. Any student who meets the necessary academic requirements and pays the student activity fee is eligible for election to the Student Government Association. For more information about the Student Government Association, contact (203) 285-2242 or e-mail gw-sga@gwcc.commnet.edu.

The Campus Activities Board

The Campus Activities Board (CAB) is a sub-committee of the Student Government Association. CAB's purpose is to successfully coordinate, implement, and execute a comprehensive calendar of social, recreational, educational, film, performing arts, service, philanthropic, concert, and cultural events for activity fee paying students at Gateway Community College. For further information call (203) 285-2249 or e-mail the CAB Chair at gw-cab@gwcc.commnet.edu.

Student Organizations

The Student Government Association recognizes numerous student organizations that are formed by special interest groups and advised by a member of the College staff. New student organizations may be formally recognized by the Student Government Association throughout the year. Some of the clubs and organizations that have been formally recognized by the Student Government Association are: Art Club, Armed Forces and Veteran's Club, Black Student Association, Christian Fellowship Club, Computer and Gaming Club, Early Childhood Association, Engineering Club, Financial & Economics Club, Gay Straight Alliance, Gospel Choir, International Student Association, Organization of Latin American Students (OLAS), Meditation Club, Muslim Student Association, Poetry and Music Club, Recreation Club, Science Club, Student Nursing Association, Theater Goers Club and Turkish Student Association.

Honor Societies

Gateway Community College has an active chapter of the Phi Theta Kappa Honor Society. Phi Theta Kappa is the honor society of two-year colleges. Students are invited to join the Alpha Xi Theta Chapter as full members if they have completed at least 12 associate degree credits at Gateway and have a Grade Point Average (GPA) of at least 3.5. Qualified students are inducted into the Honor Society during the Phi Theta Kappa Induction Ceremony held each fall and spring. Alpha Xi Theta also accepts provisional members with less than 12 associate degree credits at Gateway or students with 12 associate degree credits at Gateway and have a GPA of at least 3.3.

Student Development

Telephone (203) 285-2033

Student Development supports the education and preparation of students for full participation in civic, cultural, and professional life. Our department strives to create, direct and sustain programs that support the broad educational and developmental needs of our diverse college community to achieve success.

Veterans' Affairs

Telephone (203) 285-2146

Veterans Administration Benefits

Veterans, members of the Reserves and dependents of veterans who believe that they are eligible for educational benefits from the Veterans Administration may obtain an application for benefits from the Director of Career Services, who is the Veterans Certifying Official for the college. Students who are receiving VA benefits *must* notify the Certifying Official of their course schedule *each semester* and of any changes in their course load. Courses must meet requirements of the degree or certificate in which the student is enrolled.

Some non-credit programs are certified for VA benefits; veterans may ask the Certifying Official whether they can receive benefits while attending a specific non-credit program.

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

Connecticut Tuition Waiver

Veterans who meet the requirements listed under "Tuition and Fee Waivers", including service on active duty for at least 90 days during the periods defined as war-time by state statute, are eligible for a waiver of tuition for general fund courses. The student must present a copy of DD Form 214 to the Payments Office to obtain the waiver. The waiver applies only to credit courses offered in the fall and spring semesters, and eligible veterans must pay all fees.

Student Success Center

Telephone: (203) 285-2090:

The Student Success Center provides comprehensive services in an environment conducive to learning by providing the support students need to reach their full potential. The Success Center includes the following departments, programs and services: Academic Advising, New Student Advising and Registration (NSAR) Program, Transfer Advising, and Retention Services.

Academic Advising

Telephone: (203) 285-2090:

Academic advising, based in the teaching and learning mission of higher education, is a series of intentional interactions with a curriculum, a pedagogy, and a set of student learning outcomes. Academic advising synthesizes and contextualizes students' educational experiences within the frameworks of their aspirations, abilities and lives to extend learning beyond campus boundaries and timeframes (NACADA, 2006).

Academic Advising is a key component of your success at Gateway Community College. Seeking academic advising each semester will reduce the likelihood of improper course selection and delays in graduation. Students should seek advisement at the midpoint of each semester for the upcoming semester. When mid-term exams begin seek out advising. The advising session includes an interactive dialogue between advisor and advisee the covers a range of topics such as; educational goals, career goals, academic progress and school-work-family balance. At the conclusion of the session the advisor should recommend a set of courses based on this discussion and create or update your academic plan.

New Students

All new students first time freshman must attend a New Student Advising & Registration (NSAR) session. NSAR is Gateway's program to assist new students in understanding the academic world, and to register for their first semester of courses at the college. Students attending the program will:

- Register for their first semester of courses
- Receive advising to begin their college career
- Understand the nature of college instruction
- Learn how to navigate student services and enrollment
- Learn the electronic self-service tools for advising and registration

Transfer and Re-Admit Students

Students should seek their first semester advising from the Counseling & Student Success Center in N213. To schedule an appointment contact (203) 285-2090. At the advising session students will;

- Meet with a professional staff member to review previous credits taken at Gateway or other institutions (please be sure to bring unofficial transcripts from any other college besides Gateway to receive accurate advising); and,
- Receive academic advising to understand program requirements, develop an academic plan and select classes for the upcoming semester.

Continuing Students

Continuing students have different options for obtaining academic advising, however, the most common places to seek advising are; academic program coordinators, chairs and directors or generalist counselors/advisors. Students who have selected a program major should seek advising from the academic program coordinator or his/her designee. Students who are undecided or exploring several options should seek advising from a professional staff member in the Counseling and Student Success Center in Room N213. To schedule an appointment visit the continuing student advising homepage at: http://www.gatewayct.edu/continuingadvising

Retention Services

Telephone: (203) 285-2090:

Succeeding in college requires that students address areas both inside and outside the classroom that may impact their learning.The Student Success Center offers comprehensive services to promote success, such as Satisfactory Academic Progress (SAP) Advising and Early/Academic Alert intervention.

- Satisfactory Academic Progress Advising: Designed for students who fall below the cumulative GPA of 1.7 and/or minimum completion pace of 50%. Advisors meet with students individually toidentify a plan for success including campus resources, budgeting strategies, and appeal eligibility.
- Early and Academic Alerts: Professional staff members respond to reports submitted by faculty specific to the student's performance in a particular course. Individual meetings and workshops allow the student to explore the areas of concern and establish a plan for success including referrals to programs and services both on and off-campus.

Wellness Center

Telephone: (203) 285-2480)

The Wellness Center offers holistic wrap-around case management services in an inclusive and judgement-free environment to support Gateway's overall mission and purpose. We are committed to supporting student's development in problem-solving skills, coping techniques and self-advocacy. All counseling sessions are provided in a supportive, empathetic, collaborative and confidential environment.

Scheduling an Appointment: Counselors are available to help students obtain the most from their college experience. Contact the Wellness Center for (203) 285-2480 or gw-wellness@gatewayct.edu, or stop by N-114 to make an appointment.

Services:

- Solution-focused Brief Counseling (SFBC) to support the needs of GCC's diverse population;
- Crisis Intervention Counseling and referral services;

- Comprehensive campus-side programs to support students in mind, body and spirit;
- Case management services to address basic needs, financial stability and access to public benefits screening (Center for Students and Families);
- Family Economic Support Program (FESP);
- Achievement Coaching Program

Lounge for Nursing Mothers

Students, faculty, staff and visitors who are breastfeeding are invited to utilize a clean, private lactation room. A refrigerator and sink are available for your convenience. Reservations are encouraged but not necessary; contact the Wellness Center at (203) 285-2480, gw-wellness@gatewayct.edu, or stop by N-114.

Family Economic Support Program (FESP)

GCC's Family Economic Support Program (FESP) is a grant-funded program that provides students with academic, career, financial and personal support. The goal of FESP is to offer wrap-around services to support students through certificate and/or degree completion. The criteria for FESP participants is as follows:

- Must be registered at GCC for upcoming semester;
- Completed at least 9 credits AND have at least two semesters remaining;
- Be currently employed full or part-time.

Benefits for RESP participants:

- One-on-one coaching (financial, academic and career);
- Cultural enrichment activities;
- Program Development workshops;
- On campus family events;
- Early course registration;
- Scholarships;
- Networking skills

Achievement Coaching Program

Individual meetings and workshops assist students in managing college work through the identification of goals and the development of appropriate strategies. The following areas are commonly addressed through the coaching program; goal setting; learning styles; organization; note-taking; time management; test-taking strategies; and test anxiety.

Center for Students and Families

Students can access support for a variety of services aimed at addressing basic needs. The center provides the following services to students: Mobile Food Pantry, application for public benefits, heating assistance, commuity referrals, and additional services as needed.

Student Accessibility Services

Telephone: (203) 285-2231

Student Accessibility Specialists:

Ronald Chomicz / email: rchomicz@gatewayct.edu
Samantha Kusiak / email: skusiak@gatewayct.edu

Gateway Community College is committed to ensuring that all qualified individuals with disabilities have the opportunity to participate in our educational and employment programs and services on an equal basis. College employment and admission policies prohibit discrimination against qualified persons with disabilities.

Student Accessibility Services (SAS) facilitates the planning and provision of services for students with disabilities. If a student has sensory, learning, physical, medical or a mental health disability, he/she may be eligible for disability services. Students requesting services are required to provide relevant medical, psycho-educational, or mental health documentation prior to receiving services.

Due to the individualized nature of planning for and providing academic adjustments, it is essential that each eligible student meet with an Accessibility Specialist to discuss his/her specific needs prior to receiving academic adjustments. A student is required to request academic adjustments through the SAS office for each semester that he/she plans on receiving academic adjustments.

GENERAL EDUCATION REQUIREMENTS

Effective Fall 2016, General Education requirements include offerings that focus on the subject matter (the arts and humanities, the sciences, including mathematics, and the social sciences) and methodologies, as well as their relationships to one another.

General education is the hallmark of American higher education and the key to a broadly-educated citizenry. Therefore, in addition to improving the transferability of general education, we should also focus on the quality of general education. Therefore, our goal is not simply transferability but an excellent preparation for all students in their first sixty hours, including their essential general education foundation.

The general education curriculum is based on students' ability to demonstrate competence in the following areas:

- written communication in English,
- social phenomena,
- quantitative reasoning,
- scientific knowledge/understanding,
- critical analysis and logical thinking,
- aesthetic dimensions,
- historical knowledge/understanding,
- oral communication in English,
- scientific reasoning,
- ethical dimensions.

General Education Outcomes

Written Communication in English (WC)

Goal: Students will be prepared to develop written texts of varying lengths and styles that communicate effectively and appropriately across a variety of settings.

Social Phenomena Knowledge/Understanding (SP)

Goal: Students will develop an increased understanding of the influences that shape a persons or groups attitudes, beliefs, emotions, symbols, and actions, and how these systems of influence are created, maintained, and altered by individual, familial, group, situational, or cultural means.

Quantitative Reasoning (QR)

Goal: Students will learn to recognize, understand, and use the quantitative elements they encounter in various aspects of their lives. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.

Scientific Knowledge/Understanding (SK)

Goal: Students will gain a broad base of scientific knowledge and methodologies in the natural sciences. This will enable them to develop scientific literacy, the knowledge and understanding of scientific concepts and processes essential for personal decision making and understanding scientific issues.

Critical Analysis & Logical Thinking (CALT)

Goal: Students will be able to organize, interpret, and evaluate evidence and ideas within and across disciplines; draw reasoned inferences and defensible conclusions; and solve problems and make decisions based on analytical processes.

Aesthetic Dimensions (AD)

Goal: Students will understand the diverse nature, meanings, and functions of creative endeavors through the study and practice of literature, music, the theatrical and visual arts, and related forms of expression.

Historical Knowledge/Understanding (HK)

Goal: Students will study the interrelatedness of various realms of human experience from multiple historical perspectives.

Oral Communication in English (OC)

Goal: Students will be prepared to develop oral messages of varying lengths and styles that communicate effectively and appropriately across a variety of settings.

Scientific Reasoning (SR)

Goal: Students become familiar with science as a method of inquiry. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.

Embedded Competency

Continued Learning & Information Literacy (CLIL)

Goal: Students will be able to use traditional and digital technology to access, evaluate, and apply information to the needs or questions confronting them throughout their academic, professional, and personal lives.

Ethical Dimensions (ED)

Goal: Students will identify ethical principles that guide individual and collective actions and apply those principles to the analysis of contemporary social and political problems.-

Common Core of General Education

The General Education Core requirements are listed below--**(please refer to program for specific General Education requirements)**.

Competency Area	Code	How Many Credits Required
Written Communication I	**WC**	3
Written Communication II	**WC**	3

Social Phenomena/Knowledge and Understanding	**SP**	3
Quantitative Reasoning	**QR**	3
Scientific Knowledge and Understanding	**SK**	3 - 4
Critical Analysis/Logical Thinking	**CALT**	3 - 4
One Additional Competency from the following four areas: **(refer to program-specific designations)**		
Aesthetic Dimension of Humankind	**AD**	3
Historical Knowledge and Understanding	**HK**	3
Oral Communication	**OC**	3
Scientific Reasoning	**SR**	4
Total General Education Core Credits		**21 - 24**

General Education Competency Courses

WC I - Written Communication I

- ENG* 101 - Composition **3 credits**

WC II - Written Communication II

- ENG* 102 - Literature and Composition **3 credits**
- ENG* 200 - Advanced Composition **3 credits**

SP - Social Phenomena/Knowledge/Understanding

- ANT* 105 - Introduction to Cultural Anthropology **3 credits**
- ECN* 101 - Macroeconomics **3 credits**
- ECN* 102 - Microeconomics **3 credits**
- PSY* 111 - General Psychology I **3 credits**

QR - Quantitative Reasoning

- MAT* 109 - Quantitative Literacy **3 credits** or any higher level Math

SK - Scientific Knowledge & Understanding

Any course in BIO*, CHE*, EAS*, EVS*, or PHY*

CALT - Critical Analysis/Logical Thinking

- BES* 218 - Entrepreneurship **3 credits**
- BFN* 110 - Personal Finance **3 credits**
- BME* 212 - Biomedical Equipment Design **4 credits**
- DMS* 223 - Clinical Practicum III **3 credits** *
- ENG* 221 - American Literature I **3 credits**
- ENG* 222 - American Literature II **3 credits**
- ENG* 231 - British Literature I **3 credits**
- ENG* 232 - British Literature II **3 credits**
- ENG* 245 - Early Western Literature **3 credits**
- ENG* 246 - Modern Western Literature **3 credits**
- ENG* 254 - Modern Arabic Literature **3 credits**
- EXS* 227 - Exercise Testing & Program Design **4 credits**
- HUM* 125 - Introduction to Peace and Conflict Studies **3 credits**
- IDS 106 - Critical Thinking - Business **3 credits**
- IDS 112 - Career Seminar & Internship **3 credits**
- NMT* 223 - Nuclear Medicine Seminar **3 credits** *
- NTR* 214 - Nutrition Internship III **3 credits** *
- NUR* 201 - Nursing Care of Individuals and Families I **9 credits** *
- PHL* 101 - Introduction to Philosophy **3 credits**
- PHL* 111 - Ethics **3 credits**
- RAD* 206 - Quality Assurance **3 credits** *
- RDT* 126 - Clinical Internship II **3 credits** *

SR - Scientific Reasoning (all 4 credits)

- BIO* 105 - Introduction to Biology **4 credits**
- BIO* 115 - Human Biology **4 credits**
- BIO* 121 - General Biology I **4 credits**
- BIO* 122 - General Biology II **4 credits**
- BIO* 211 - Anatomy and Physiology I **4 credits**
- BIO* 212 - Anatomy and Physiology II **4 credits**
- BIO* 213 - Human Cadaver Anatomy **4 credits**
- BIO* 235 - Microbiology **4 credits**
- CHE* 111 - Concepts of Chemistry **4 credits**
- CHE* 121 - General Chemistry I **4 credits**
- CHE* 122 - General Chemistry II **4 credits**
- CHE* 220 - Biochemistry **4 credits**
- CHE* 231 - Quantitative Chemical Analysis with Environmental Applications **4 credits**
- EAS* 110 - The Earth Sciences **4 credits**

- EVS* 114 - Environmental Science **4 credits**
- PHY* 109 - Fundamentals of Applied Physics **4 credits**
- PHY* 111 - Physics for the Life Sciences **4 credits**
- PHY* 121 - General Physics I **4 credits**
- PHY* 122 - General Physics II **4 credits**
- PHY* 221 - Calculus-Based Physics I **4 credits**
- PHY* 222 - Calculus-Based Physics II **4 credits**

HK - Historical Knowledge/Understanding

- HIS* 101 - Western Civilization I **3 credits**
- HIS* 102 - Western Civilization II **3 credits**
- HIS* 201 - U.S. History I **3 credits**
- HIS* 202 - U.S. History II **3 credits**

AD - Aesthetic Dimensions

- ART* 101 - Art History I **3 credits**
- ART* 102 - Art History II **3 credits**
- ENG* 271 - Film and Literature **3 credits**
- MUS* 101 - Music History and Appreciation I **3 credits**
- MUS* 141 - Guitar I **3 credits**
- MUS* 150 - Class Piano I **3 credits**

OC - Oral Communications

- BBG* 210 - Business Communication **3 credits**
- COM* 173 - Public Speaking **3 credits**
- COM* 174 - Advanced Public Speaking **3 credits**
- HSE* 212 - Mediation **3 credits**

Students seeking CSCU Pathway Transfer Degrees should visit the Transfer Ticket webpage for the most current list of approved courses: http://www.ct.edu/transfer/tickets#major

Electives

These are courses selected by the student according to program requirements. When selecting electives, especially for transferability to another institution, students should consult their academic advisor.

Business

Accounting, Business, Computer Science, Economics, Business Office Technology, and Hospitality Management

Computer Literacy

BOT* 111 - Keyboarding for Information Processing I, BOT* 112 - Keyboarding for Information Processing II. ACC* 125 - Accounting Computer Application I, BBG* 115 - Business Software Applications, CSA* 105 - Introduction to Software

Applications; CSC* 101 - Introduction to Computers; BOT* 137 - Word Processing Applications (Word); ECE* 110 - Using Computers in ECE; BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet); CSA* 140 - Database Applications (Access); CSA* 135 - Spreadsheet Applications (Excel); and BOT* 217 - Desktop Publishing (BOT 218). For technical programs: CET* 116 - Computer Applications for Technology

Engineering and Applied Technologies

Biomedical Engineering Technology, Electrical Engineering Technology, Computer Engineering Technology, Manufacturing Engineering Technology, Mechanical Engineering Technology

Fine Arts

Art and Music

Humanities

Art, Communications, English (college-level), Foreign Languages, Graphics, Literature, Music, Philosophy, Reading (college-level), or Sign Language

Mathematics

Mathematics (college-level)

Natural Sciences

Biology, Chemistry, Earth Science, Ecology, Physical Science, Physics, or Environmental Science

Social Sciences

Anthropology, Criminal Justice, Drug and Alcohol Recovery Counselor (DARC), Economics, Education, Geography, History, Political Science, Human Development (college-level), Human Services, Psychology, or Sociology

Technical

Alternative Fuel Vehicle, Automotive Technology, Clean Water Management, Computer Aided Drafting, Environmental Science and Toxicology, Fire Technology and Administration, Railroad Engineering Technology, Solar Technology, Water Management, Wastewater Management and all courses from the 'Engineering and Applied Technologies courses above.

Liberal Arts & Sciences

Any college-level course in the following disciplines: Anthropology (ANT), Art (ART), Biology (BIO), Chemistry (CHE), Communications (COM), Earth Science (EAS), Economics (ECN), English (ENG), Environmental Science (EVS), French (FRE), Geography (GEO), History (HIS), Humanities (HUM), Italian (ITA), Mathematics (MAT), Music (MUS) (non-performance), Philosophy (PHL), Physics (PHY), Political Science (POL), Psychology (PSY), Sign Language (SGN), Sociology (SOC), Spanish (SPA), Theater (THR).

Academic Definitions

The following definitions are helpful to know when selecting your program and courses:

Credit Hours (cr.) — College work is measured in units called credit hours. A credit-hour value is assigned to each course and is normally equal to the number of hours the course meets each week. Credit hours may also be referred to as semester hours (S.H.).

Lecture Hours (lec.) — The number of clock hours in the fall or spring semester the student spends each week in the classroom. This time frame is different for the shorter summer sessions.

Laboratory Hours (lab.) — The number of clock hours in the fall or spring semester the student spends each week in the laboratory or other learning environment. This time frame is different for the shorter summer sessions.

Prerequisite — A course that must be successfully completed or a requirement such as related life experiences that must be met before enrolling in another course.

Corequisite — A course that must be taken during the same or earlier semester as the course in which one is enrolling.

Common Core — A term which refers to courses as listed under the College's Common Core of General Education which the faculty of the College considers essential to its degree programs.

Electives — Courses which may be chosen.

General Electives — All credit courses listed in the catalog. Students should consider transferability of courses when choosing general electives.

Directed/Restricted Electives — Credit courses that satisfy specific program requirements. These courses are listed with each program area.

Non-Credit — A course of study that does not apply towards the college degree; typically designed as short courses, workshops and customized programs. Non-credit programs focus on knowledge and skills that can be applied directly to the job, or personal and professional growth.

Continuing Education Unit (CEU) Certificates — Awarded for successful achievement of a non-credit program's learning objectives; typically CEU's are awarded on a 1:10 ratio (i.e., one CEU for every ten hours of qualified instruction).

Syllabus — An outline or summary of the main points in a course of study.

Matriculate — To be admitted to a program of study.

DEGREE & CERTIFICATE PROGRAMS

ACCOUNTING

Accountant's Assistant Certificate

This program is for the mature individual who has previous office experience and is seeking additional skills. Upon completion of this program, the Accountant's Assistant can assume "full charge" of a set of books for accounts of small or medium businesses and nonprofit organizations. The Accountant's Assistant performs duties under the supervision and direction of internal and/or public accountants. For more information, call the Business Department Chairperson, Professor Sheri Valentin, at (203) 285-2169 or e-mail at svalentin@gatewayct.edu).

Click here for important information on: Becoming Connecticut State Community College

Program Requirements

ACC* 113 - Principles of Financial Accounting I **3 credits**
ACC* 117 - Principles of Managerial Accounting **3 credits**
ACC* 125 - Accounting Computer Application I **3 credits**
ACC* 241 - Federal Taxes I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**

Total Program Credits: 15

Bookkeeping Certificate

This 30 hour certificate program trains students in a wide variety of office skills and prepares them for immediate entry into the job market. For more information, call the Business Department Chairperson, Professor Sheri Valentin, at (203) 285-2169 or e-mail SValentin@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ACC* 100 - Basic Accounting **3 credits**
   or
ACC* 113 - Principles of Financial Accounting I **3 credits**
BOT* 111 - Keyboarding for Information Processing I **3 credits**
BOT* 137 - Word Processing Applications (Word) **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**

Total Semester Credits: 12

Second Semester

ACC* 125 - Accounting Computer Application I **3 credits**
BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet) **3 credits**
BOT* 251 - Administrative Procedures **3 credits**
CSA* 140 - Database Applications (Access) **3 credits**

Total Semester Credits: 12

Total Program Credits: 24

Business Administration: Accounting Option, AS

The complexity of society requires trained personnel to interpret and manage the fiscal aspects of business and industry. The curriculum of the Business Administration: Accounting Option is designed to be either a transfer program or a career program. Career-oriented students are prepared for entry-level positions in public and private accounting. Students may also consider transferring credit earned in this program toward a Bachelor's degree.

Program Outcomes

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

Apply generally accepted accounting principles in the recording and reporting of financial information
Describe accounting system procedures and techniques
Analyze and use financial reports for decision-making
Explain the use of financial information in controlling and evaluating performance
Communicate effectively using the vocabulary of financial and managerial accounting and economics
Please click here for important informtion regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
BBG* 231 - Business Law I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 137 - Intermediate Algebra **3 credits** (or higher)

Total Semester Credits: 15

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits**
BBG* 210 - Business Communication **3 credits**
BMG* 202 - Principles of Management **3 credits**
ECN* 101 - Macroeconomics **3 credits**
   or
ECN* 102 - Microeconomics **3 credits**
BES* 218 - Entrepreneurship **3 credits**
   or
BFN* 110 - Personal Finance **3 credits**
   or
IDS 106 - Critical Thinking - Business **3 credits**

Total Semester Credits: 15

Third Semester

ACC* 125 - Accounting Computer Application I **3 credits**

ECN* 102 - Microeconomics **3 credits**
ENG* 102 - Literature and Composition **3 credits**
   or
ENG* 200 - Advanced Composition **3 credits**
MAT* 166 - Principles of Business Statistics **3 credits**
Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge and Understanding) **3 credits**

Total Semester Credits: 15

Fourth Semester

ACC* 241 - Federal Taxes I **3 credits**
BBG* 232 - Business Law II **3 credits**
BFN* 201 - Principles of Finance **3 credits**
BMK* 201 - Principles of Marketing **3 credits**
Business (Elective) **3 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

CSCU Pathway Transfer Degree: Business Studies: Accounting, A.A.

CSCU Pathway Transfer Degree: Business Studies, A.A.

The 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. You will declare your specific field when you transfer.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University +	Accounting, B.S.
+ A minimum 2.5 cumulative GPA is required	Finance, B.S.
at CCSU	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 - Business 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.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits** [2,3]
BBG* 231 - Business Law I **3 credits** [2]
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Total Semester Credits: 15-16

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits** [2,3]
BBG* 210 - Business Communication 3 credits (this course may be used to fulfill the Oral Communication requirements - see the fourth semester) [1]
BMG* 202 - Principles of Management **3 credits** [2]
ECN* 101 - Macroeconomics **3 credits** [1,3]
Choose one course in Critical Analysis/Logical Thinking **3 credits** (Recommended: BES* 218 or BFN* 110)

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

ECN* 102 - Microeconomics **3 credits** [1,3]
MAT* 166 - Principles of Business Statistics **3 credits** [1,3]
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

BFN* 201 - Principles of Finance **3 credits** [2]
BMK* 201 - Principles of Marketing **3 credits** [2]
MAT* 158 - Functions, Graphs, & Matrices **3 credits Note: MAT 230** *Applied Calculus with a Modeling Approach and* **MAT 254** *Calculus I will also meet this requirement.* [1,3]
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Oral Communications **3 credits** (if you took BBG 210 Business Communication to fulfill this requirement, then take an additional 3 credits. You are recommended to use those credits to take BMG 220 Human Resources Management)

Total Semester Credits: 15

Total Program Credits: 61-62

Notes:

[1] Must have a C-or above

[2] Must have a C or above

[3] Must have a cumulative 2.5 or above

+ A minimum of 2.50 cumulative GPA is required for Central

Total Program Credits: 61-62

ALLIED HEALTH

Health Career Pathways Certificate

The Health Career Pathways Certificate program is designed to assist students in achieving success in health care programs. Students will be provided with the foundation necessary for health care professions. Credits from this program may be applied toward health care program requirements within Connecticut's Community College system. However, completion of this program does not guarantee an automatic acceptance into any health care program. Students are responsible for verifying specific requirements for their program of interest.

For more information on the Health Career Pathways program, please contact Mary Beth Banks, Enrollment Services Assistant at 203.285.2388 or e-mail mbanks@gatewayct.edu.

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
Meet most requirements for entrance into health care programs
Demonstrate an understanding of the impact of psychological principles and how they relate to the health care field
Effectively utilize and interpret medical terminology
Demonstrate critical thinking, logical reasoning and problem solving skills
Demonstrate competence in written and oral communication
Use and apply scientific methods
Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BIO* 105 - Introduction to Biology **4 credits**
    or
BIO* 121 - General Biology I **4 credits**
ENG* 101 - Composition **3 credits**
HLT* 103 - Investigations in Health Careers **3 credits**
MAT* 137 - Intermediate Algebra **3 credits**

Total Semester Credits: 13

Second Semester

BIO* 211 - Anatomy and Physiology I **4 credits**
CHE* 111 - Concepts of Chemistry **4 credits**

Total Semester Credits: 8

Third Semester

BIO* 212 - Anatomy and Physiology II **4 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 7

Total Program Credits: 28

ART & GRAPHICS

CSCU Pathway Transfer Degree: Art Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Art, B.A. **
At Eastern Connecticut State University	Visual Arts, B.A. - Art History Concentration #
	Visual Arts, B.A. - Digital Art and Design Concentration ^
	Visual Arts, B.A. - Painting and Drawing Concentration #
	Visual Arts, B.A. - Sculpture Concentration #
	Visual Arts, B.A. - Printmaking Concentration #
At Southern Connecticut State University	Studio Art, B.A. @
	Studio Art, B.S. - Ceramics Concentration +
	Studio Art, B.S. - Graphic Design Concentration +
	Studio Art, B.S. - Jewelry and Metals Concentration +
	Studio Art, B.S. - Painting Concentration +
	Studio Art, B.S. - Photography Concentration +
	Studio Art, B.S. - Printmaking Concentration +
	Studio Art, B.S. - Sculpture Concentration +
At Western Connecticut State University	Art, B.A. %

Here is the recommended course of study for the Art Studies Transfer Degree. 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.

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

**For admission to CCSU's Art Program: All art majors must submit a portfolio of works for consideration by the art faculty. Students whose portfolios do not meet standards will be required to take supplemental courses. No student will be allowed to proceed on to a 300-level (or higher) studio course without a successful portfolio review. Art majors much complete 15 credits in courses at the 300-level or above. Students can choose 18-credits of directed electives OR a minor in another department.

 # For admission to ECSU's Visual Arts Concentrations in Art History, Painting & Drawing, Sculpture, or Printmaking: These concentrations do not require a portfolio

^ For admission to ECSU's Visual Arts Concentration in Digital Art and Design: Students interested in the digital art and design concentration are required to submit a portfolio for admission to the program after completing the two Digital Art Techniques courses: ART 122 (or CC equivalent) and ART 124. The portfolio will include 10 samples of the student's work (two examples each from Illustrator, InDesign, Photoshop and Dreamweaver and two samples from either Drawing I or 2 - Dimensional Design). Portfolios must be carefully prepared according to guidelines available in the Visual Arts Department office. Portfolios must be submitted and program admission approved before students can enroll in 300-level design courses. Grades of less than 2.0 (C) will not count toward the major.

@ For admission to SCSU Studio Art B.A.: (1) All majors in studio art must earn grades of "C" or higher incourses counted toward the studio art major. (2) Transfer students majoring in the Studio Art B.A. must take at least 50 percent (half) of their studio art credits at Southern. This means only the pathway's 5 minimum required studio courses (ART 111, 121, 122, plus two course from line 35) will count towards the Studio Art B.A.; additional studio art courses will transfer as unrestricted free electives. (3) Transfer students who enter with 60 to 89 credits are required to pass two W-courses.

+ For admission to SCSU's Studio Art B.S. with Concentrations in Ceramics, Graphic Design, Jewelry/Metals,Painting, Photography, Printmaking, or Sculpture:(1) All majors in studio art must earn grades of "C" or higher in 4 courses counted toward the studio art major. (2) Transfer students majoring in Studio Art must take at least 50 percent (half) of their studio art credits at Southern. (3) Transfer students who enter with 60 to 89 credits are required to pass two W -courses

% For admission to WCSU's Art Program: 1. All art majors must submit a portfolio of works for consideration by the art faculty. Students whose portfolios do not meet standards will be required to takesupplemental courses. No student will be allowed to proceed on to a 300-level (or higher) studio course without a successful portfolio review. 2. Students must earn a minimum of "C" grade in each Art department course thatcounts toward the major. Art courses with grades below "C" must be retaken to satisfy this requirement.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ART* 111 - Drawing I **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one Unrestricted Elective*

> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take a math course that prepares you for the required level of math in your 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 Semester Credits: 15

Second Semester

ART* 101 - Art History I **3 credits**
ART* 121 - Two Dimensional Design **3 credits**
Choose one course in Written Communication II **3 credits**

Choose one course in Scientific Reasoning **3-4 credits**
Choose one course in Quantitative Reasoning **3-4 credits**

Total Semester Credits: 15-17

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available on October 1.

ART* 102 - Art History II **3 credits**
ART* 122 - Three Dimensional Design **3 credits**
Choose one course in Social Phenomena **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**
Choose one Unrestricted Elective*
  * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field--you must complete 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 Semester Credits: 15-16

Fourth Semester

Choose one course in Oral Communication **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Unrestricted Elective **0 - 3 credits ***
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take a math course that prepares you for the required level of math in your 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.

Choose 2 or 3 courses with no more than one course from each group below (1 - 6) **6-9 credits**
ART* 109 - Color Theory **3 credits**
    or
ART* 151 - Painting I **3 credits**
ART* 112 - Drawing II **3 credits**
ART* 131 - Sculpture I **3 credits**
ART* 141 - Photography I **3 credits**
    or
ART* 142 - Photography II **3 credits**
ART* 167 - Printmaking I **3 credits**
GRA* 151 - Graphic Design I **3 credits** *(this course has a pre-requisite of GRA* 149; this will count as an unrestricted elective)*

Total Semester Credits: 15

Total Program Credits: 61

Studio Art, AS

The Studio Art program provides a strong basic foundation in the visual arts along with a background in general education. Furthermore, it prepares students for continued study or for employment by enabling them to build a portfolio of artwork that exhibits their proficiency in Studio Art. For students seeking greater personal and creative fulfillment, this program also promotes art as an avocation. For more information, call Professor Susan Chenard by e-mail at (schenard@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Demonstrate skills, techniques, and manipulation of tools and equipment necessary for studio or graphic arts as described in the course syllabi

Demonstrate an understanding of art and design concepts and problem solving as described in the course syllabi

Compile a portfolio of work reflecting knowledge, techniques, and creativity gained during a student's course of study

Demonstrate an understanding of the process of creating a finished work of art or design concept

Communicate and critique using specific art vocabulary

Suggested Course Sequence

First Semester

ART* 109 - Color Theory **3 credits**
ART* 111 - Drawing I **3 credits**
ART* 121 - Two Dimensional Design **3 credits**
ART* 151 - Painting I **3 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 15

Second Semester

ART* 112 - Drawing II **3 credits**
ART* 152 - Painting II **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
GRA* 149 - Introduction to Adobe Creative Suite **3 credits**
Choose one course in Social Phenomena (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**

Total Semester Credits: 15

Third Semester

ART* 101 - Art History I **3 credits**
ART* 131 - Sculpture I **3 credits**
ART* 141 - Photography I **3 credits**

MAT* 109 - Quantitative Literacy **3 credits** (or higher)
Restricted (Elective): Studio Art (see below) **3 credits**

Total Semester Credits: 15

Fourth Semester

ART* 102 - Art History II **3 credits**
ART* 122 - Three Dimensional Design **3 credits**
Choose one course in Scientific Knowledge (Gen Ed - SK: Scientific Knowledge & Understanding) **3-4 credits**
Choose one course in CALT (Gen Ed - CALT: Critical Analysis/Logical Thinking) **3 credits**
Restricted (Elective): Studio Art (see below) **3 credits**

Total Semester Credits: 15-16

Total Program Credits: 60-61

Studio Art Restricted Electives:

ART* 142 - Photography II **3 credits**
ART* 176 - Digital Video Art I **3 credits**

Studio Art: Graphic Design Option, AS

The Studio Art: Graphic Design Option program provides a strong basic foundation in the visual arts along with a background in general education. Furthermore, it prepares students for continued studies or employment by enabling them to build a portfolio of artwork that exhibits a degree of proficiency in graphic design. For students seeking greater personal and creative fulfillment, this program will also promotes art as an avocation. For more information, call Professor Susan Chenard by e-mail at schenard@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

> Demonstrate skills, techniques, and manipulation of tools and equipment necessary for studio or graphic arts as described in the course syllabi
> Demonstrate an understanding of art and design concepts and problem solving as stated in the course syllabi
> Compile a portfolio of work reflecting knowledge, techniques, and creativity gained during a student's course of study
> Demonstrate an understanding of the process of creating a finished work of art or design concept
> Communicate and critique using specific art vocabulary

Suggested Course Sequence

First Semester

> GRA* 149 - Introduction to Adobe Creative Suite **3 credits**
> GRA* 151 - Graphic Design I **3 credits**
> ART* 111 - Drawing I **3 credits**
> ART* 121 - Two Dimensional Design **3 credits**
> ENG* 101 - Composition **3 credits**

Total Semester Credits: 15

Second Semester

> ART* 151 - Painting I **3 credits**
> ENG* 102 - Literature and Composition **3 credits** or
> ENG* 200 - Advanced Composition **3 credits**
> GRA* 252 - Graphic Design II **3 credits**
> Graphic Design (Restricted Elective) **3 credits**
> Choose one course in Social Phenomena (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**

Total Semester Credits: 15

Third Semester

> ART* 261 - Web Design I **3 credits**
> ART* 109 - Color Theory **3 credits**
> ART* 122 - Three Dimensional Design **3 credits**
> ART* 141 - Photography I **3 credits**

MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 15

Fourth Semester

ART* 101 - Art History I **3 credits**
    or
ART* 102 - Art History II **3 credits**
ART* 131 - Sculpture I **3 credits**
Graphic Design (Restricted Elective) **3 credits**
Choose one course in Scientific Knowledge (Gen Ed - SK: Scientific Knowledge & Understanding) **3-4 credits**
Choose one course in CALT (Gen Ed - CALT: Critical Analysis/Logical Thinking) **3 credits**

Total Semester Credits: 15-16

Total Program Credits: 60-61

Restricted Electives Graphic Design:

ART* 112 - Drawing II **3 credits**
ART* 142 - Photography II **3 credits**
ART* 176 - Digital Video Art I **3 credits**
GRA* 231 - Digital Imaging (Photoshop) **3 credits**
GRA* 237 - Computer Graphics (Adobe Illustrator) **3 credits**
GRA* 241 - Digital Page Design I (InDesign) **3 credits**

Web Design Certificate

The Web Design certificate can be used as a stepping stone to the Studio Art/Graphic Design Option degree program. It will prepare the student for transfer onto a Baccalaureate Degree Program at a four year institution. It can also be helpful in gaining employment or to further enhance current skills for those who are already employed. Web Design is becoming more and more necessary in small business and corporate settings and a skilled web designer must be in place to accommodate this need. For more information, call Professor Susan Chenard by e-mail at schenard@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Learning Outcomes

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

Create industry-standard web publication
Recognize typography standards for web publication
Discern color functions optimized for web publication
Analyze and structure XHTML code and CSS for web publication
Recognize current standards for optimizing graphics for electronic distribution
Utilize Adobe Illustrator and Photoshop to process graphics for web use

Program Requirements

GRA* 149 - Introduction to Adobe Creative Suite **3 credits**
GRA* 151 - Graphic Design I **3 credits**
GRA* 231 - Digital Imaging (Photoshop) **3 credits**
GRA* 237 - Computer Graphics (Adobe Illustrator) **3 credits**
GRA* 252 - Graphic Design II **3 credits**
GRA* 261 - Web Design I **3 credits**

Total Program Credits: 18

AUTOMOTIVE - GENERAL (CARS)

Automotive Technology: Comprehensive Automotive Repair and Service (CARS) Certificate

The objective of the Comprehensive Automotive Repair and Service (CARS) Certificate 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 need for technicians in the college service area. This program furthers the college's mission to "respond to the changing academic, occupational, technological needs" by offering "a broad range of credit (technical and career) programs and courses leading to transfer, employment and lifelong learning." The automotive curriculum is designed to meet all *ASE Accredited Training Program* requirements for national accreditation.

Program Outcomes

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

Meet all *ASE Accredited Training Program* required outcomes for MAST 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* guidelines.

Each student accepted into the program must purchase or possess the tools required for the program, have a valid driver's license, and wear an automotive uniform while attending classes. For more information, call the Program Coordinator, Professor Scott McFarland at (203) 285-2405 or e-mail at (smcfarland@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

AUT* 132 - Automotive Systems & Shop Practices **3 credits**
AUT* 136 - Steering and Suspension Systems **3 credits**
AUT* 138 - Braking Systems **3 credits**
AUT* 231 - Engine Management Systems **3 credits**
AUT* 233 - Manual Drivetrain Systems **3 credits**

Total Semester Credits: 15

Second Semester

AUT* 130 - Power Plant **3 credits**
AUT* 134 - Electrical/Electronic Systems **3 credits**
AUT* 235 - Automatic Drivetrain Systems **3 credits**
AUT* 237 - Climate Control & Restraint Systems **3 credits**

AUT* 238 - Advanced Electrical Diagnosis & Performance Tuning **3 credits**
AUT* 270 - Practicum II **2 credits**
    or
AUT* 272 - Practicum III **3 credits**

Total Semester Credits: 17-18

Summer Semester

AUT* 170 - Practicum I **4 credits**

Total Semester Credits: 4

Total Program Credits: 36-37

Automotive Technology: Comprehensive Automotive Repair and Service (CARS), AAS

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 the college service area. 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 transfer, employment and lifelong learning." The automotive curriculum is designed to meet all *ASE Accredited Training Program* requirements for national accreditation. For more information, contact Professor Scott McFarland, Program Coordinator at (203) 285-2405 or e-mail at (smcfarland@gatewayct.edu).

Program Outcomes

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

Meet all ASE Accredited Training Program required outcomes for MAST 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.

Click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

AUT* 132 - Automotive Systems & Shop Practices **3 credits**
AUT* 136 - Steering and Suspension Systems **3 credits**
AUT* 138 - Braking Systems **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 15

Second Semester

AUT* 130 - Power Plant **3 credits**
AUT* 134 - Electrical/Electronic Systems **3 credits**
Choose one course in CALT (Gen Ed - CALT: Critical Analysis/Logical Thinking) **3 credits**
Choose one course in AD, HK, OC, SR **3 credits** (Gen Ed)

Total Semester Credits: 12

Summer Semester

AUT* 170 - Practicum I **4 credits**

Total Semester Credits: 4

Third Semester

AUT* 231 - Engine Management Systems **3 credits**
AUT* 233 - Manual Drivetrain Systems **3 credits**
AUT* 270 - Practicum II **2 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Choose one course in Social Phenomena (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**

Total Semester Credits: 14

Fourth Semester

AUT* 235 - Automatic Drivetrain Systems **3 credits**
AUT* 237 - Climate Control & Restraint Systems **3 credits**
AUT* 238 - Advanced Electrical Diagnosis & Performance Tuning **3 credits**
AUT* 272 - Practicum III **3 credits**
Choose one course in Scientific Knowledge (Gen Ed - SK: Scientific Knowledge & Understanding) **3-4 credits**

Total Semester Credits: 15-16

Total Program Credits: 60-61

AUTOMOTIVE - GENERAL MOTORS (ASEP)

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

The Automotive Service Education Program (ASEP) was designed by General Motors and Gateway Community College. This unique, cooperative program educates students for a challenging career in General Motors and AC Delco sponsored automotive repair 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. Students in the ASEP program receive state-of-the-art instruction on General Motors' products. Vehicles, parts, engines, specialized tools, service information, and materials are provided by General Motors Corporation. The automotive curriculum is designed to meet all *ASE Accredited Training Program* requirements for national accreditation. For more information, contact Professor Daniel Fuller, Program Coordinator at (203) 285-2370 or e-mail at (dfuller@gatewayct.edu).

Program Outcomes

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

Meet all *ASE Accredited Training Program* required outcomes for MAST 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

Receive corporate credit for web based and embedded classroom / laboratory training in the GM Common Training Web Site

Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by *ASE Accredited Training Program* requirements.

Students seeking acceptance into the Automotive Technology (GM-ASEP) A.A.S. degree program will have to apply to the program by April 20 prior to their enrollment in the program. Requirements to apply are:

Complete the program application form

Complete all developmental mathematics courses (if necessary) or be eligible for MAT* 115

Complete all developmental English courses (if necessary) or be eligible for ENG* 101

Complete AUT* 112, AUT* 132, or test out of an automotive specification course in accordance to college policy

Complete the Automotive Programs' placement exam if required

Interview with the GM ASEP Program Coordinator to verify eligibility

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 June 1 and students will be notified shortly after. Once students are selected for enrollment into the program, they will have until August 20 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 from Gateway Community College. Upon completion of the ASEP program, students will receive an Associate in Applied Science degree in Automotive Technology from Gateway 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.* 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.

Please click here for important information on: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

AUT* 112 - GM Specifications **2 credits**
AUT* 116 - GM Suspension and Steering **3 credits**
AUT* 118 - GM Braking Systems **3 credits**
AUT* 161 - GM Internship 1A **1 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 12

Winter Intersession Session

AUT* 162 - GM Internship 1B **1 credits**

Total Semester Credits: 1

Second Semester

AUT* 110 - GM Engine Repair **3 credits**
AUT* 114 - GM Electrical Systems **3 credits**
AUT* 163 - GM Internship 1C **1 credits**
ENG* 102 - Literature and Composition **3 credits**
   or
ENG* 200 - Advanced Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 13

Summer Session

AUT* 171 - GM Internship 2 **4 credits**

Total Semester Credits: 4

Third Semester

AUT* 201 - GM Engine Performance **3 credits**
AUT* 203 - GM Manual Drivetrain **3 credits**
AUT* 261 - GM Internship 3A **1 credits**
Choose one course in Social Phenomena (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**
Choose one course in one of these areas: AD, HK, OC, SR (Gen Ed) **3 credits**

Total Semester Credits: 13

Winter Intersession Session

AUT* 262 - GM Internship 3B **1 credits**

Total Semester Credits: 1

Fourth Semester

AUT* 205 - GM Automatic Drivetrain **3 credits**
AUT* 207 - GM Climate Control and Safety Systems **3 credits**
AUT* 263 - GM Internship 3C **1 credits**
Choose one course in Scientific Knowledge (Gen Ed - SK: Scientific Knowledge and Understanding) **3-4 credits**
Choose one course in CALT (Gen Ed - CALT: Critical Analysis/Logical Thinking) **3 credits**

Total Semester Credits: 13-14

Summer Session

AUT* 271 - GM Internship 4 **3 credits**

Total Semester Credits: 3

Total Program Credits: 60-61

Automotive Technology: General Motors Certificate

The Automotive Service Certificate was designed by General Motors and Gateway 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).

Certificate Outcomes

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

Meet the industry ASE Alliance training requirements for GM Steering and Suspension, Braking, Engine and Electrical systems as assessed by existing instruments in current course

Demonstrate application of Critical Analysis & Logical Thinking (CALT) skills through completion of a course that meets the CALT requirements.

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 – 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 possess a valid CT motor vehicle operator license. Students must purchase required tool set that meets program standards.

Internship requirements – students will be required to successfully complete two internship courses at sponsoring GM dealerships or AC Delco PSC partners. 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.

General Education requirements – Students are required to complete a Critical Analysis & Logical Thinking (CALT) course as a program requirement.

Students seeking acceptance into the General Motors Certificate program must:

Interview with the GM Program Coordinator to determine that all program entry requirements have been met.

Complete all developmental English courses (if necessary) or be eligible for ENG* 101

Complete the Automotive Programs' 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

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

AUT* 112 - GM Specifications **2 credits**
AUT* 116 - GM Suspension and Steering **3 credits**
AUT* 118 - GM Braking Systems **3 credits**
AUT* 161 - GM Internship 1A **1 credits**
    or
AUT* 162 - GM Internship 1B **1 credits**
    or
AUT* 163 - GM Internship 1C **1 credits**

Total Semester Credits: 9

Second Semester

AUT* 110 - GM Engine Repair **3 credits**
AUT* 114 - GM Electrical Systems **3 credits**
AUT* 161 - GM Internship 1A **1 credits**
    or
AUT* 162 - GM Internship 1B **1 credits**
    or
AUT* 163 - GM Internship 1C **1 credits**
    Choose one course in CALT: Critical Analysis/Logical Thinking **3 credits**

Total Second Semester Credits: 10

Total Program Credits: 19

AUTOMOTIVE - HONDA PACT

Automotive Technology: Honda PACT Certificate

The mission of the Honda PACT Certificate Program is to educate those seeking employment in the field of automotive technology. It will prepare students for entry-level employment as Honda/Acura 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 the college service area. This program furthers the college's mission to "respond to the changing academic, occupational, technological needs" by offering "a broad range of credit (technical and career) programs and courses leading to transfer, employment and lifelong learning." The automotive curriculum is designed to meet all *ASE Accredited Training Program* requirements for national accreditation. For more information, contact the Program Coordinator, Giuseppe (Joe) Vertucci, at (203) 285-2434 or e-mail at (gvertucci@gatewayct.edu).

Program Outcomes

Meet all *ASE Accredited Training Program* required outcomes for MAST 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

Receive corporate credit for web based and embedded classroom / laboratory training in the "inTraining" Honda system

Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by *ASE Accredited Training Program* requirements.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

AUT* 141 - Honda Express Service **1 credits**
AUT* 155 - Honda Power Plant - Theory **2 credits**
AUT* 156 - Honda Power Plant - Lab **2 credits**
AUT* 157 - Honda Electrical systems - Theory **2 credits**
AUT* 158 - Honda Electrical Systems - Lab **2 credits**
AUT* 211 - Honda Engine Management Systems - Theory **2 credits**
AUT* 212 - Honda Engine Management Systems - Lab **2 credits**
AUT* 213 - Honda Drivetrain Systems - Theory **2 credits**
AUT* 214 - Honda Drivetrain Systems - Lab **2 credits**

Total Semester Credits: 17

Second Semester

AUT* 165 - Honda Steering and Suspension - Theory **2 credits**
AUT* 166 - Honda Steering and Suspension Systems - Lab **2 credits**
AUT* 167 - Honda Braking Systems - Theory **2 credits**
AUT* 168 - Honda Braking Systems - Lab **2 credits**
AUT* 181 - Honda Practicum I **1 credits**
AUT* 255 - Honda Advanced Electrical Systems - Theory **2 credits**
AUT* 256 - Honda Advanced Electrical Systems - Lab **2 credits**
AUT* 257 - Honda Climate Control & Restraint Systems - Theory **2 credits**

AUT* 259 - Honda Climate Control & Restraint Systems - Lab **2 credits**

Total Semester Credits: 17

Summer

AUT* 281 - Honda Practicum II **1 credits**
AUT* 283 - Honda Practicum III **2 credits**
AUT* 284 - Honda Practicum IV **1 credits**
AUT* 285 - Honda Practicum V **1 credits**

Total Semester Credits: 5

Total Program Credits: 39

Automotive Technology: Honda PACT, AAS

The mission of the Honda PACT Degree Program is to educate those seeking employment in the field of automotive technology. It will prepare students for entry-level employment as Honda/Acura 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 the college service area. 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, academic) programs and courses leading to transfer, employment and lifelong learning." The automotive curriculum is designed to meet all *ASE Accredited Training Program* requirements for national accreditation. For more information, contact Program Coordinatorm Giuseppe (Joe) Vertucci at (203) 285-2434 or e-mail at gvertucci@gatewayct.edu. * Students must be sponsored by a Honda or Acura dealership.

Program Outcomes

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

Meet all *ASE Accredited Training Program* required outcomes for MAST 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

Receive corporate credit for web based and embedded classroom / laboratory training in the "inTraining" Honda system

Demonstrate knowledge and understanding of all fundamental automotive concepts as outlined by *ASE Accredited Training Program* requirements.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

AUT* 141 - Honda Express Service **1 credits**
AUT* 155 - Honda Power Plant - Theory **2 credits**
AUT* 156 - Honda Power Plant - Lab **2 credits**
AUT* 157 - Honda Electrical systems - Theory **2 credits**
AUT* 158 - Honda Electrical Systems - Lab **2 credits**
ENG* 101 - Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 15

Second Semester

AUT* 165 - Honda Steering and Suspension - Theory **2 credits**
AUT* 166 - Honda Steering and Suspension Systems - Lab **2 credits**
AUT* 167 - Honda Braking Systems - Theory **2 credits**
AUT* 168 - Honda Braking Systems - Lab **2 credits**
AUT* 181 - Honda Practicum I **1 credits**
Choose one course in CALT - **3 credits**
Choose one course in AD, HK, OC **- 3 credits**

Total Semester Credits: 15

Third Semester

AUT* 211 - Honda Engine Management Systems - Theory **2 credits**
AUT* 212 - Honda Engine Management Systems - Lab **2 credits**
AUT* 213 - Honda Drivetrain Systems - Theory **2 credits**
AUT* 214 - Honda Drivetrain Systems - Lab **2 credits**
AUT* 281 - Honda Practicum II **1 credits**
AUT* 283 - Honda Practicum III **2 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Choose one course in Social Phenomena (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**

Total Semester Credits: 17

Fourth Semester

AUT* 255 - Honda Advanced Electrical Systems - Theory **2 credits**
AUT* 256 - Honda Advanced Electrical Systems - Lab **2 credits**
AUT* 257 - Honda Climate Control & Restraint Systems - Theory **2 credits**
AUT* 259 - Honda Climate Control & Restraint Systems - Lab **2 credits**
AUT* 284 - Honda Practicum IV **1 credits**
AUT* 285 - Honda Practicum V **1 credits**
Choose one course in Scientific Reasoning (Gen Ed - SR: Scientific Reasoning) **3-4 credits**

Total Semester Credits: 13-14

Total Program Credits: 60-61

BIOCHEMISTRY

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Biochemistry - General Track, B.S.
	Biochemistry - American Chemical Society Certified, B.S.
At Eastern Connecticut State University	Biochemistry, B.S.
At Southern Connecticut State University	Chemistry - Concentration: Biochemistry, B.S.
At Western Connecticut State University	Biochemistry - Non-American Chemical Society Approved, B.S.
	Biochemistry - American Chemical Society Approved, B.S.

Here is the recommended course of study for the Biology Studies Transfer Degree. If you are studying part time, simply follow the order of the courses lsited 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.

CSCU Pathway Transfer Degree: Biochemistry Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Biochemistry - General Track, B.S.
	Biochemistgry - American Chemical Society Certified, B.S.
At Eastern Connecticut State University	Biochemistry, B.S.
At Southern Connecticut State University	Chemistry - Concentration: Biochemistry, B.S.
At Western Connecticut State University	Biochemistry - Non-American Chemical Society Approved, B.S.
	Biochemistry - American Chemical Society Approved, B.S.

Here is the recommended course of study for the Biology Studies Transfer Degree. If you are studying part time, simply follow the order of the courses lsited 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.

Please contact the campus advisor for this program:

Professor Megan DeLivron at MDeLivron@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

CHE* 121 - General Chemistry I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**
Choose one course in Aesthetic Dimensions - **3 credits**

Total Semester Credits: 14

Second Semester

BIO* 121 - General Biology I **4 credits**
CHE* 122 - General Chemistry II **4 credits**
MAT* 254 - Calculus I **4 credits**
Choose one course in Written Communication II - **3 credits**

Total Semester Credits: 15

Third Semester

Begin the transfer application process in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

BIO* 235 - Microbiology **4 credits**
CHE* 211 - Organic Chemistry I **4 credits**
PHY* 221 - Calculus-Based Physics I **4 credits**
Choose one course in Social Phenomena - **3 credits**

Total Semester Credits: 15

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation.

CHE* 212 - Organic Chemistry II **4 credits**
Choose one course in Continued Learning and Information Literacy - **3 credits**
Choose one course in HIstorical Knowledge and Understanding - **3 credits**
Choose one course in Oral Communications - **3 credits**

Total Semester Credits: 16

Unrestricted Elective

PHY* II is required at CCSU, ECSU, WCSU

BIO* II is required at WCSU

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

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

BIO* 122 - General Biology II **4 credits**
    or
PHY* 222 - Calculus-Based Physics II **4 credits**

Total Program Credits: 60

BIOLOGY

CSCU Pathway Transfer Degree: Biology Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Biology - General Biology, B.S.
	Biology - Ecology, Biodiversity, and Evolutionary Biology, B.S.
	Biology - Environmental Science, B.S.
At Eastern Connecticut State University	Biology, B.A.
At Southern Connecticut State University	Biology, B.A.
	Biology, B.S.
At Western Connecticut State University	Biology, B.A.
	Ecology, B.A.
At Charter Oak State College	General Studies - Biology Concentration, B.A.

Here is the recommended course of study for the Biology Studies Transfer Degree. If you are studying part time, simply follow the order of the courses lsited 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.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

BIO* 121 - General Biology I **4 credits** (Note: Requires MAT* 137 pre-requisite)
CHE* 121 - General Chemistry I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**

Total Semester Credits: 15

Second Semester

BIO* 122 - General Biology II **4 credits**
CHE* 122 - General Chemistry II **4 credits**
 Choose one from the following:
MAT* 254
Additional General Education I Creativity 3 credits
Additional General Education II Global Knowledge 3 credits
Choose one course in Written Communication II **3 credits**

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

> PHY* 121 - General Physics I **4 credits**
> > Choose one from the following: BIO* 235, BIO* 211, CHE* 211 or PHY* 221
> Choose one course in Social Phenomenam **3 credits**
> Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 14

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation.

> PHY* 122 - General Physics II **4 credits**
> Choose <u>one not already taken</u> from the following**: BIO* 211, BIO* 212, BIO* 235**, PHY* 222, or CHE* 212
> **Credits:** 4
> Choose one course in Historical Knowledge and Understanding **3 credits**
> Choose one course in Critical Analysis/Logical Thinking **3 credits**
> Choose one course in Oral Communications **3 credits**

Total Semester Credits 17

Total Program Credits 61

BIOMEDICAL ENGINEERING TECHNOLOGY

Biomedical Engineering Technology, 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. Gateway's Biomedical Engineering Technology associate degree program will qualify students for these demanding careers.

Program 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
Understand 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 Gateway's program are also capable of dealing with most types of nonmedical electronics. or more information, contact the Interim Department Chair, Eric Flynn EFlynn@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BME* 110 - Biomedical Technology **2 credits**
CET* 116 - Computer Applications for Technology **3 credits**
EET* 110 - Electric Circuits I **4 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits**
CHE* 111 - Concepts of Chemistry **4 credits**

Total Semester Credits: 16

Second Semester

BME* 116 - Physiological Systems **4 credits**
EET* 136 - Electronics I **4 credits**
MAT* 186 - Precalculus **4 credits**
PHY* 121 - General Physics I **4 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 19

Third Semester

BME* 210 - Biomedical Instrumentation **4 credits**
EET* 252 - Digital Electronics **4 credits**
MAT* 254 - Calculus I **4 credits**
COM* 173 - Public Speaking **3 credits**

Total Semester Credits: 15

Fourth Semester

BME* 212 - Biomedical Equipment Design **4 credits**
BME* 214 - Advanced Biomedical Instrumentation **4 credits**
BME* 220 - Biomedical Practicum **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Choose any course in Gen Ed - SP: Social Phenomena/Knowledge/Understanding **3 credits**

Total Semester Credits: 17

Total Program Credits: 67

BUSINESS - ENTREPRENUERIAL STUDIES

Entrepreneurial Studies Certificate

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. For more information, contact the Program Coordinator, Professor Rose Luglio, at 203.285.2198 or rluglio@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

> BES* 218 - Entrepreneurship **3 credits**
> BMK* 201 - Principles of Marketing **3 credits**
> Business (Electives) **6 credits**

Total Semester Credits: 12

Second Semester

> BES* 219 - Management and Growth – Small Business **3 credits**
> BES* 239 - Business Plan **3 credits**
>   **or**
> BES* 295 - Launch a Business **3 credits**
> Business (Elective) **3 credits**

Total Semester Credits: 9

Total Program Credits: 21

Entrepreneurial Studies, AS

Small businesses are vital to the growth of our economy and will create the majority of 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. For more information, call the Program Coordinator, Professor Rose Luglio, at (203) 285-2198 or e-mail at (rluglio@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Entrepreneurial Studies Program Outcomes

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

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.

Suggested Course Sequence

First Semester

BBG* 231 - Business Law I **3 credits**
BES* 218 - Entrepreneurship **3 credits**
BMK* 201 - Principles of Marketing **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
    or
CSC* 101 - Introduction to Computers **3 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 15

Second Semester

BBG* 210 - Business Communication **3 credits**
BES* 219 - Management and Growth – Small Business **3 credits**
ECN* 101 - Macroeconomics **3 credits**
    or
ECN* 102 - Microeconomics **3 credits**
MAT* 109 - Quantitative Literacy **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**

Total Semester Credits: 15

Third Semester

ACC* 100 - Basic Accounting **3 credits**
    or
ACC* 113 - Principles of Financial Accounting I **3 credits**
BMK* 215 - Principles of eBusiness **3 credits**
Business (Electives) **9 credits**

Total Semester Credits: 15

Fourth Semester

BBG* 294 - Business Internship **3 credits**
BES* 239 - Business Plan **3 credits**
    or
BES* 295 - Launch a Business **3 credits**
BMG* 220 - Human Resources Management **3 credits**
Business (Elective) **3 credits**
Choose one course in: BIO*, CHE*, EAS*, EVS*, PHY***** (Gen Ed - SK: Scientific Knowledge & Understanding) **3-4 credits**

Total Semester Credits: 15-16

Total Program Credits: 60-61

BUSINESS - FINANCE

CSCU Pathway Transfer Degree: Business Studies: Finance, A.A.

CSCU Pathway Transfer Degree: Business Studies, A.A.

The 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. You will declare your specific field when you transfer.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University +	Accounting, B.S.
+ A minimum 2.5 cumulative GPA is required	Finance, B.S.
at CCSU	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 - Business 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.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits** [2,3]
BBG* 231 - Business Law I **3 credits** [2]
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Total Semester Credits: 15-16

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits** [2,3]
BBG* 210 - Business Communication 3 credits (this course may be used to fulfill the Oral Communication requirements
  - see the fourth semester) [1]
BMG* 202 - Principles of Management **3 credits** [2]
ECN* 101 - Macroeconomics **3 credits** [1,3]
Choose one course in Critical Analysis/Logical Thinking **3 credits** (Recommended: BES* 218 or BFN* 110)

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes
available October 1.

ECN* 102 - Microeconomics **3 credits** [1,3]
MAT* 166 - Principles of Business Statistics **3 credits** [1,3]
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

BFN* 201 - Principles of Finance **3 credits** [2]
BMK* 201 - Principles of Marketing **3 credits** [2]
MAT* 158 - Functions, Graphs, & Matrices **3 credits Note: MAT 230** *Applied Calculus with a Modeling Approach and*
  MAT 254 *Calculus I will also meet this requirement.* [1,3]
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Oral Communications **3 credits** (if you took BBG 210 Business Communication to fulfill this
  requirement, then take an additional 3 credits. You are recommended to use those credits to take BMG 220 Human
  Resources Management)

Total Semester Credits: 15

Total Program Credits: 61-62

Notes:

[1] Must have a C-or above

[2] Must have a C or above

[3] Must have a cumulative 2.5 or above

+ A minimum of 2.50 cumulative GPA is required for Central

Total Program Credits: 61-62

Notes:

> All courses marked with a [1] must have a C- or above
> All courses marked with a [2] must have a C or above
> The six courses marked with a [3] must have a cumulative 2.5 or above
> A minimum 2.50 cumulative GPA is required for Central Connecticut State University

BUSINESS - GENERAL

Business Administration Certificate

This certificate program upgrades students' business and management skills and/or allows them to obtain credits as prerequisites for higher education programs.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Requirements

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
BBG* 231 - Business Law I **3 credits**
BMG* 202 - Principles of Management **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**

Total Semester Credits: 12

Second Semester

BBG* 210 - Business Communication **3 credits**
BMK* 201 - Principles of Marketing **3 credits**
ECN* 101 - Macroeconomics **3 credits**
    or
ECN* 102 - Microeconomics **3 credits**
Business (Elective) **3 credits**

Total Semester Credits: 12

Total Program Credits 24

Business Administration, AS

The complexity of business demands a constant supply of trained managers and administrators. This career program prepares students for managerial and administrative responsibilities. This program includes both the basic concepts of business management and the fundamental tools of management that are common to both the private and public sectors of the economy. For more information, call the Business Department Chairperson, Professor Sheri Valentin at (203) 285-2169 or e-mail at (svalentin@gatewayct.edu).

Program Outcomes

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

Demonstrate reasoning and analytic skills
Display the traits and attitudes that promote ongoing success and a strong work ethic
Work with others, including culturally and intellectually diverse people
Identify the leadership and motivational traits and qualities necessary to accomplish organizational goals
Understand the global, economic, ethical, and legal environments of contemporary business.
Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
BBG* 231 - Business Law I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 137 - Intermediate Algebra **3 credits** (or higher)

Total Semester Credits: 15

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits**
BBG* 210 - Business Communication **3 credits**
BMG* 202 - Principles of Management **3 credits**
BES* 218 - Entrepreneurship **3 credits**
    or
BFN* 110 - Personal Finance **3 credits**
    or
IDS 106 - Critical Thinking - Business **3 credits**
ECN* 101 - Macroeconomics **3 credits**

Total Semester Credits: 15

Third Semester

ECN* 102 - Microeconomics **3 credits**
ENG* 102 - Literature and Composition **3 credits**

or

ENG* 200 - Advanced Composition **3 credits**

MAT* 166 - Principles of Business Statistics **3 credits**

Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge and Understanding) **3-4 credits**

Business (Elective) **3 credits**

Total Semester Credits: 15-16

Fourth Semester

BFN* 201 - Principles of Finance **3 credits**

BMG* 220 - Human Resources Management **3 credits**

BMK* 201 - Principles of Marketing **3 credits**

Business Electives **6 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

CSCU Pathway Transfer Degree: Business Studies: Business Administration, A.A.

CSCU Pathway Transfer Degree: Business Studies, A.A.

The 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. You will declare your specific field when you transfer.

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+ A minimum 2.5 cumulative GPA is required	Finance, B.S.
at CCSU	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 - Business 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.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits** [2,3]
BBG* 231 - Business Law I **3 credits** [2]
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Total Semester Credits: 15-16

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits** [2,3]
BBG* 210 - Business Communication **3 credits** (this course may be used to fulfill the Oral Communication requirements - see the fourth semester) [1]
BMG* 202 - Principles of Management **3 credits** [2]
ECN* 101 - Macroeconomics **3 credits** [1,3]
Choose one course in Critical Analysis/Logical Thinking **3 credits** (Recommended: BES* 218 or BFN* 110)

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

ECN* 102 - Microeconomics **3 credits** [1,3]
MAT* 166 - Principles of Business Statistics **3 credits** [1,3]
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

BFN* 201 - Principles of Finance **3 credits** [2]
BMK* 201 - Principles of Marketing **3 credits** [2]
MAT* 158 - Functions, Graphs, & Matrices **3 credits Note: MAT 230** *Applied Calculus with a Modeling Approach and* **MAT 254** *Calculus I will also meet this requirement.* [1,3]
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Oral Communications **3 credits** (if you took BBG 210 Business Communication to fulfill this requirement, then take an additional 3 credits. You are recommended to use those credits to take BMG 220 Human Resources Management)

Total Semester Credits: 15

Total Program Credits: 61-62

Notes:

[1] Must have a C-or above

[2] Must have a C or above

[3] Must have a cumulative 2.5 or above

+ A minimum of 2.50 cumulative GPA is required for Central

Total Program Credits: 61-62

CSCU Pathway Transfer Degree: Business Studies: Business, A.A.

CSCU Pathway Transfer Degree: Business Studies, A.A.

The 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. You will declare your specific field when you transfer.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University +	Accounting, B.S.
+ A minimum 2.5 cumulative GPA is required	Finance, B.S.
at CCSU	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 - Business 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.

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First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits** [2,3]

BBG* 231 - Business Law I **3 credits** [2]
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Total Semester Credits: 15-16

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits** [2,3]
BBG* 210 - Business Communication **3 credits** (this course may be used to fulfill the Oral Communication requirements
    - see the fourth semester) [1]
BMG* 202 - Principles of Management **3 credits** [2]
ECN* 101 - Macroeconomics **3 credits** [1,3]
Choose one course in Critical Analysis/Logical Thinking **3 credits** (Recommended: BES* 218 or BFN* 110)

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes
available October 1.

ECN* 102 - Microeconomics **3 credits** [1,3]
MAT* 166 - Principles of Business Statistics **3 credits** [1,3]
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

BFN* 201 - Principles of Finance **3 credits** [2]
BMK* 201 - Principles of Marketing **3 credits** [2]
MAT* 158 - Functions, Graphs, & Matrices **3 credits Note: MAT 230** *Applied Calculus with a Modeling Approach and*
    MAT 254 *Calculus I will also meet this requirement.* [1,3]
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Oral Communications **3 credits** (if you took BBG 210 Business Communication to fulfill this
    requirement, then take an additional 3 credits. You are recommended to use those credits to take BMG 220 Human
    Resources Management)

Total Semester Credits: 15

Total Program Credits: 61-62

Notes:

[1] Must have a C-or above

[2] Must have a C or above

[3] Must have a cumulative 2.5 or above

+ A minimum of 2.50 cumulative GPA is required for Central

Total Program Credits: 61-62

BUSINESS - MANAGEMENT

Business Administration: Management Option, AS

The Business Administration Management Option helps meet the growing need for qualified supervisory and entry-level managers in the Greater New Haven area. For more information, contact the Department Chairperson, Professor Sheri Valentin at 203-285-2169 or SValentin@gatewayct.edu.

Program Outcomes

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

Review the historical development of management theories and relate them to current managerial thought

Use the planning process to accomplish both personal and professional goals

Describe the staffing processes of recruitment, placement, training, and development for maintaining an effective work force

Identify the leadership and motivational traits and qualities necessary to accomplish organizational goals

Analyze the decision-making and problem-solving methods that managers use

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BBG* 231 - Business Law I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 137 - Intermediate Algebra **3 credits** (or higher)
BES* 218 - Entrepreneurship **3 credits**
    or
BFN* 110 - Personal Finance **3 credits**
    or
IDS 106 - Critical Thinking - Business **3 credits**

Total Semester Credits: 15-16

Second Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
BBG* 210 - Business Communication **3 credits**
ECN* 101 - Macroeconomics **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (SK: Scientific Knowledge and Understanding) **3-4 credits**

Total Semester Credits: 15-16

Third Semester

ACC* 117 - Principles of Managerial Accounting **3 credits**
BMG* 202 - Principles of Management **3 credits**

BMK* 201 - Principles of Marketing **3 credits**
ECN* 102 - Microeconomics **3 credits**
MAT* 166 - Principles of Business Statistics **3 credits**

Total Semester Credits: 15

Fourth Semester

BMG* 220 - Human Resources Management **3 credits**
BFN* 201 - Principles of Finance **3 credits**
Business (Elective) **6 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

CSCU Pathway Transfer Degree: Business Studies: Management, A.A.

CSCU Pathway Transfer Degree: Business Studies, A.A.

The 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. You will declare your specific field when you transfer.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University +	Accounting, B.S.
+ A minimum 2.5 cumulative GPA is required	Finance, B.S.
at CCSU	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 - Business 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.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits** [2,3]
BBG* 231 - Business Law I **3 credits** [2]
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Total Semester Credits: 15-16

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits** [2,3]
BBG* 210 - Business Communication **3 credits** (this course may be used to fulfill the Oral Communication requirements - see the fourth semester) [1]
BMG* 202 - Principles of Management **3 credits** [2]
ECN* 101 - Macroeconomics **3 credits** [1,3]
Choose one course in Critical Analysis/Logical Thinking **3 credits** (Recommended: BES* 218 or BFN* 110)

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

ECN* 102 - Microeconomics **3 credits** [1,3]
MAT* 166 - Principles of Business Statistics **3 credits** [1,3]
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

BFN* 201 - Principles of Finance **3 credits** [2]
BMK* 201 - Principles of Marketing **3 credits** [2]
MAT* 158 - Functions, Graphs, & Matrices **3 credits Note: MAT 230** *Applied Calculus with a Modeling Approach and* **MAT 254** *Calculus I will also meet this requirement.* [1,3]
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Oral Communications **3 credits** (if you took BBG 210 Business Communication to fulfill this requirement, then take an additional 3 credits. You are recommended to use those credits to take BMG 220 Human Resources Management)

Total Semester Credits: 15

Total Program Credits: 61-62

Notes:

[1] Must have a C-or above

[2] Must have a C or above

[3] Must have a cumulative 2.5 or above

+ A minimum of 2.50 cumulative GPA is required for Central

Total Program Credits: 61-62

Management Certificate

The Management Certificate allows the student to focus on the specific skills needed for success in today's workplace. It is designed for those who do not have the time to pursue a degree program but want to improve their managerial skills. Those students interested in continuing their studies will be able to use all credits earned in this program toward a degree in the Business Administration Management Option.

Program Outcomes

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

Use effective planning processes to accomplish both personal and professional goals
Use appropriate management skills for workplace decision-making
Describe the various ways firms are organized and the roles of personnel and organizational systems
Discuss tools and techniques used in the management control process
Discuss the role of computers and technology in society and state ways in which businesses use information systems in decision-making

Please click here for important information regarding: Becoming Connecticut State Community College

Program Requirements

First Semester

BMG* 202 - Principles of Management **3 credits**
BBG* 231 - Business Law I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 12

Second Semester

BBG* 210 - Business Communication **3 credits**
BBG* 220 - Human Resource Management **3 credits**

Total Semester Credits: 12

Total Program Credits 24

Business/Computer Electives:

All Business, BOT or CSC courses

Public Utility Management, AS

The Public Utility Management program provides graduates with a wide variety of career options in this fast growing field. 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. This degree 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. For more information, please call the Program Coordinator, Professor Wesley Winterbottom at (203) 285-2354 or email WWinterbottom@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Describe and manage the operations of public utilities

Apply effective written and oral communication skills to articulate business opportunities, ideas, and problems, as well as appropriate strategic responses across the economic social, environmental, public and political spheres

Direct team dynamics of work groups, particularly in relation to the functioning of critical incident response teams

Develop utility management ideas and translate them into best practices

Employ and make use of written documents such as regulatory 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 decisions

Suggested Course Sequence

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
BMG* 202 - Principles of Management **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
ENV* 110 - Environmental Regulations **3 credits**

Total Semester Credits: 15

Second Semester

ACC* 117 - Principles of Managerial Accounting **3 credits**
BMG* 110 - Public Utility Management **3 credits**
ECN* 101 - Macroeconomics **3 credits**
EVS* 114 - Environmental Science **4 credits**
MAT* 167 - Principles of Statistics **3 credits**

Total Semester Credits: 16

Third Semester

BMG* 216 - Rates and Revenues **3 credits**

BMG* 219 - Asset & Infrastructure Management **3 credits**
ECN* 102 - Microeconomics **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Restricted Elective - 3 credits

Total Semester Credits: 16

Fourth Semester

BBG* 210 - Business Communication **3 credits**
BMG* 221 - Customer Relations **3 credits**
BBG* 231 - Business Law I **3 credits**
BBG* 240 - Business Ethics **3 credits**
Restricted Elective **3 credits**

Total Semester Credits: 15

Total Program Credits: 61

Restricted Electives

BBG* 294 - Business Internship **3 credits**
BMK* 201 - Principles of Marketing **3 credits**
QUA* 114 - Principles of Quality Control **3 credits**
WMT* 101 - Water Treatment and Distribution **6 credits**
WMT* 102 - Special Topics in Water Treatment **3 credits**
WMT* 103 - Special Topics in Water Distribution **3 credits**

BUSINESS - MARKETING/RETAIL MANAGEMENT/FASHION MERCHANDISING

Business Administration: Marketing Option, AS

In today's global, digitized, and interactive business environment, marketing offers an exciting opportunity for students. Marketing is dynamic, challenging, and the driving force in most businesses because it focuses on satisfying needs and wants of consumers. It includes activities that influence the flow of goods through the supply chain including product development and management, packaging, distribution, pricing, advertising, selling, and customer service. Marketing classes integrate theory and practical applications while applying related business knowledge. The program courses may be transferred to bachelor's degree programs. For more information, contact the Department Chairperson, Professor Sheri Valentin at 203-285-2169 or SValentin@gatewayct.edu.

Program Outcomes

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

Identify core concepts of marketing and the role of marketing in organization, society and the global economy.
Describe the legal and ethical environments in which marketing is conducted.
Demonstrate information literacy through research skills and the use of technology.
Demonstrate analytical, problem-solving, and decision-making skills applicable to business administration and marketing.
Apply effective written and oral communication skills to business situations.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BBG* 231 - Business Law I **3 credits**
BMK* 201 - Principles of Marketing **3 credits**
BBG* 210 - Business Communication **3 credits**
MAT* 137 - Intermediate Algebra **3 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 15

Second Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
BMG* 220 - Human Resources Management **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
BES* 218 - Entrepreneurship **3 credits**

Total Semester Credits: 15

Third Semester

BMK* 241 - Principles of Advertising **3 credits**
MAT* 166 - Principles of Business Statistics **3 credits**

ECN* 101 - Macroeconomics **3 credits**
    or
ECN* 102 - Microeconomics **3 credits**
Restricted - Elective (Any BMK* course or HSP* 244) **3 credits**
Business (Elective) **3 credits**

Total Semester Credits: 15

Fourth Semester

BBG* 294 - Business Internship **3 credits**
BMK* 285 - Current Marketing Topics **3 credits**
Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge and Understanding) **3-4 credits**
Restricted Elective - Business (Any Business course) **3 credits**
Restricted - Elective (Any BMK* course or HSP* 244) **3 credits**

Total Semester Credits: 15-16

Total Program Credits: 60-61

Retail Management/Fashion Merchandising Certificate

The certificate program is designed to offer an abbreviated study in retailing and fashion merchandise to prepare for work in these industries or to build upon an existing degree to provide additional career opportunities. 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 Retail Management and Fashion Merchandising. For more information, contact the Program Coordinator, Professor Rose Luglio, at 203.285.2198 or rluglio@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Identify core concepts of retail management and fashion merchandising and their role in society and the global economy.
Describe the legal and ethical environments of the retail and fashion industries.
Demonstrate information literacy through research skills and the use of technology.
Apply effective written and oral communications skills to business situations.

Suggested Course Sequence

First Semester

BMK* 201 - Principles of Marketing **3 credits**
BMK* 215 - Principles of eBusiness **3 credits**
BMK* 241 - Principles of Advertising **3 credits**
BMK* 255 - Fashion Analysis **3 credits**

Total Semester Credits: 12

Second Semester

BES* 218 - Entrepreneurship **3 credits**
BMK* 103 - Principles of Retailing **3 credits**
BMK* 257 - Textiles **3 credits**

Total Semester Credits: 9

Total Program Credits: 21

Retail Management/Fashion Merchandising, AS

Retail and fashion are exciting and vital industries in our economy. This program prepares students for careers with retail, wholesale, and manufacturing organizations in buying, merchandising, fashion coordination, 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. For more information, contact the Program Coordinator, Professor Rose Luglio at 203.285.2198 or rluglio@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Identify core concepts of retail management and fashion merchandising and their role in society and the global economy.
Describe the legal and ethical environments of the retail and fashion industries.
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.
Apply effective written and oral communication skills to business situations.

Suggested Course Sequence

First Semester

BMK* 201 - Principles of Marketing **3 credits**
BMK* 220 - Sales **3 credits**
BMK* 255 - Fashion Analysis **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)
ENG* 101 - Composition **3 credits**

Total Semester Credits: 15

Second Semester

BMK* 103 - Principles of Retailing **3 credits**
BMK* 257 - Textiles **3 credits**
BMK* 295 - Field Experience I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**

Total Semester Credits: 15

Third Semester

ACC* 100 - Basic Accounting **3 credits**
    or

ACC* 113 - Principles of Financial Accounting I **3 credits**
BES* 218 - Entrepreneurship **3 credits**
BMK* 215 - Principles of eBusiness **3 credits**
BMK* 241 - Principles of Advertising **3 credits**
Business Communication (Gen Ed - OC: Oral Communication) **3 credits**

Total Semester Credits: 15

Fourth Semester

BMK* 296 - Field Experience II **3 credits**
PSY* 111 - General Psychology I **3 credits**
Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge & Understanding) **3-4 credits**
Business (Electives) **6 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

BUSINESS OFFICE TECHNOLOGY

Business Office Technology: Administrative Assistant Certificate

This is a skills-oriented sequence for students who do not wish to pursue an associate degree option. However, credits earned as part of this certificate program may be applied to the associate degree options in Business Office Technology. This program is tailored to meet individual needs. Students with excellent keyboarding skills may substitute electives for keyboarding courses. Emphasis is placed on the basic administrative and soft skills necessary to be successful in today's global business environment. For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu

Program Outcomes

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

Demonstrate technical proficiency in office applications software including: word processing, operating system, electronic spreadsheet, database management, integrated office applications and presentation graphics.

Exhibit verbal, non-verbal and written communication skills.

Key and format business documents and demonstrate proofreading 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.

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.

Administrative assistants play vital roles in American business, government, and industry. To prepare for these roles, students may choose from any of the three associate degrees or five certificate options described below. There is always a great demand for administrative assistants. Because college-trained administrative assistants possess a high level of skills, maturity, and a sophisticated attitude, they enter an organization with three advantages: 1) they command a better starting salary, 2) they may work for higher level executives, and 3) they will receive promotions more rapidly than those without a college degree.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ACC* 100 - Basic Accounting **3 credits**
BOT* 111 - Keyboarding for Information Processing I **3 credits**
BOT* 137 - Word Processing Applications (Word) **3 credits**
BOT* 251 - Administrative Procedures **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**

Total Semester Credits: 15

Second Semester

BBG* 210 - Business Communication **3 credits**
BOT* 112 - Keyboarding for Information Processing II **3 credits**
BOT* 219 - Integrated Microsoft Office **3 credits**

BOT* 279 - BOT Administrative Practicum **4 credits**
BMG* 202 - Principles of Management **3 credits**
Choose one Business Elective

Total Semester Credits: 16

Total Program Credits: 31

Students who satisfy the Keyboarding for Information Processing I (BOT* 111) requirement may substitute Computerized Communication (BOT* 220).

Business Office Technology: Administrative Assistant Option, AS

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.

Administrative assistants play vital roles in American business, government, and industry. To prepare for these roles, students may choose from any of the three associate degrees or five certificate options described below. There is always a great demand for administrative assistants. Because college-trained administrative assistants possess a high level of skills, maturity, and a sophisticated attitude, they enter an organization with three advantages: 1) they command a better starting salary, 2) they may work for higher level executives, and 3) they will receive promotions more rapidly than those without a college degree.

For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Program Outcomes

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

Demonstrate technical proficiency in office applications software including: word processing, operating system, electronic spreadsheet, database management, integrated office applications and presentation graphics.
Exhibit verbal, non-verbal and written communication skills.
Key and format business documents and demonstrate proofreading 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.
Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BOT* 111 - Keyboarding for Information Processing I **3 credits**
BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet) **3 credits**
BMG* 202 - Principles of Management **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 15

Second Semester

BES* 218 - Entrepreneurship **3 credits**
    or
IDS 106 - Critical Thinking - Business **3 credits**
BOT* 137 - Word Processing Applications (Word) **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or

ENG* 200 - Advanced Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** or higher
Business (Elective) **3 credits**

Total Semester Credits: 15

Third Semester

ACC* 100 - Basic Accounting **3 credits**
BOT* 112 - Keyboarding for Information Processing II **3 credits**
BOT* 251 - Administrative Procedures **3 credits**
PSY* 111 - General Psychology I **3 credits**
Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge and Understanding) **3 credits**

Total Semester Credits: 15

Fourth Semester

BBG* 210 - Business Communication **3 credits**
BBG* 231 - Business Law I **3 credits**
BOT* 219 - Integrated Microsoft Office **3 credits**
BOT* 279 - BOT Administrative Practicum **4 credits**
CSA* 140 - Database Applications (Access) **3 credits**

Total Semester Credits: 15

Total Program Credits: 60

Business Office Technology: Customer Service Technology Certificate

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. For more information, call Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Program Outcomes

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

Demonstrate technical proficiency in office applications software including: word processing, operating system, electronic spreadsheet, database management, integrated office applications and presentation graphics.

Exhibit verbal, non-verbal and written communication skills.

Key and format business documents and demonstrate proofreading 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.

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.

Administrative assistants play vital roles in American business, government, and industry. To prepare for these roles, students may choose from any of the three associate degrees or five certificate options described below. There is always a great demand for administrative assistants. Because college-trained administrative assistants possess a high level of skills, maturity, and a sophisticated attitude, they enter an organization with three advantages: 1) they command a better starting salary, 2) they may work for higher level executives, and 3) they will receive promotions more rapidly than those without a college degree.

For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BBG* 210 - Business Communication **3 credits**
BMK* 201 - Principles of Marketing **3 credits**
BOT* 111 - Keyboarding for Information Processing I **3 credits**
BOT* 251 - Administrative Procedures **3 credits**
COM* 173 - Public Speaking **3 credits**

Total Credits: 15

Second Semester

BMK* 220 - Sales **3 credits**
BMK* 285 - Current Marketing Topics **3 credits**

BOT* 137 - Word Processing Applications (Word) **3 credits**
COM* 172 - Interpersonal Communication **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**

Total Credits: 15

Total Program Credits: 30

Business Office Technology: Electronic Health Records and Coding Option, AS

This program prepares students for entry-level positions in medical coding and billing. Duties include creating electronic health records and coding accurately. Students will be able to analyze and revise patient data while maintaining the integrity and protecting the privacy of health information. Responsibilities also include performing computer tasks in electronic health records systems and other software applications. This medical office professional will be able to work in a variety of medical environments such as physician practices, hospitals, clinics, and insurance companies. Upon successful completion of this program, individuals will be eligible to take a national exam to become Certified Professional Coders through the American Academy of Professional Coders. For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Program Outcomes

Apply coding knowledge using coding guidelines from ICD-10, CPT-4, and HCPCS

Utilize and apply medical terminology in relation to the human body

Communicate effectively both verbally and in writing with medical professionals and office personnel

Understand the HIPAA regulations and guidelines that apply to health records and the release of protected health information and patient confidentiality and privacy

Recognize the importance of healthcare documentation in meeting the legal and ethical requirements as it relates to patient care

Create and process medical claims, along with the understanding of billing and collection procedures

Perform computer tasks in Electronic Health Records system and other software applications.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BOT* 111 - Keyboarding for Information Processing I **3 credits**
BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet) **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
HIM* 101 - Medical Terminology **3 credits**

Total Semester Credits: 15

Second Semester

BES* 218 - Entrepreneurship **3 credits**
    or
IDS 106 - Critical Thinking - Business **3 credits**
BIO* 110 - Principles of the Human Body **3 credits**
    or
BIO* 115 - Human Biology **4 credits**
BOT* 137 - Word Processing Applications (Word) **3 credits**
BOT* 181 - Medical Coding I **3 credits**
BOT* 287 - Foundations/Management of Medical Insurance **3 credits**

Total Semester Credits: 15-16

Third Semester

    BOT* 182 - Medical Coding II **3 credits**
    BOT* 291 - Electronic Health Records **3 credits** (Fall only)
    ENG* 102 - Literature and Composition **3 credits**
        or
    ENG* 200 - Advanced Composition **3 credits**
    MAT* 137 - Intermediate Algebra **3 credits** or higher
    PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 15

Fourth Semester

    BBG* 210 - Business Communication **3 credits**
    BMG* 202 - Principles of Management **3 credits**
    BOT* 279 - BOT Administrative Practicum **4 credits**
    BOT* 282 - Medical Administrative Procedures **3 credits**
    CSA* 140 - Database Applications (Access) **3 credits**

Total Semester Credits: 16

Total Program Credits: 61-62

Business Office Technology: Legal Administrative Assistant Option, AS

The duties of a legal administrative assistant vary considerably depending on the specialty of the law office. However, all legal administrative assistants 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 assistant. For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Program Outcomes

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

Differentiate between the various kinds of law offices, courts, corporate legal departments, law schools, and a wide range of other office settings.
Exhibit effective verbal and written legal communication skills.
Demonstrate skills in law office procedures and legal document processing.
Employ the use of technology appropriate for use in the legal environment.
Proofread and edit documents accurately.
Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ACC* 100 - Basic Accounting **3 credits**
BBG* 231 - Business Law I **3 credits**
BOT* 111 - Keyboarding for Information Processing I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
Choose any course in CALT: Critical Analysis/Logical Thinking **3 credits**

Total Semester Credits: 15

Second Semester

BBG* 232 - Business Law II **3 credits**
BOT* 137 - Word Processing Applications (Word) **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 15

Third Semester

BOT* 112 - Keyboarding for Information Processing II **3 credits**
BOT* 272 - Legal Administrative Procedures **3 credits**
CSA* 140 - Database Applications (Access) **3 credits**

ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Choose any course in SK: Scientific Knowledge & Understanding **3-4 credits**

Total Semester Credits: 15-16

Fourth Semester

BBG* 210 - Business Communication **3 credits**
BOT* 219 - Integrated Microsoft Office **3 credits**
BOT* 271 - Legal Document Production **3 credits**
BOT* 279 - BOT Administrative Practicum **4 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 16

Total Program Credits: 61-62

Students who satisfy the Keyboarding for Information Processing I (BOT* 111) requirement may substitute Computerized Communication (BOT* 220). BOT* 271 and BOT* 272 are offered in odd years only.

Business Office Technology: Medical Administrative Assistant Certificate

The Medical Administrative Assistant Certificate prepares students to work in a medical office or hospital. In addition to regular office duties, a medical administrative assistant performs specialized tasks. Emphasis is placed on medical coding and medical transcription skills. Training is provided using state-of-the-art medical office software. For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Program Outcomes

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

- Demonstrate technical proficiency in office applications software including: word processing, operating system, electronic spreadsheet, database management, integrated office applications and presentation graphics.
- Exhibit verbal, non-verbal and written communication skills.
- Key and format business documents and demonstrate proofreading skills.
- Demonstrate effective use of soft skills including: professionalism, adaptability to change, initiative, confidentiality, positive attitude and human-relations and creativity as well as ethical behavior and 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.

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.

Administrative assistants play vital roles in American business, government, and industry. To prepare for these roles, students may choose from any of the three associate degrees or five certificate options described below. There is always a great demand for administrative assistants. Because college-trained administrative assistants possess a high level of skills, maturity, and a sophisticated attitude, they enter an organization with three advantages: 1) they command a better starting salary, 2) they may work for higher level executives, and 3) they will receive promotions more rapidly than those without a college degree.

Students enrolling in this program who have previous keyboarding instruction should contact a member of the Business Office Technology faculty at (203) 285-2177. Students with no previous keyboarding instruction are advised to take Keyboarding for Information Processing I (BOT* 111) in the summer session in order to follow the fall-spring sequence of courses. Students interested in receiving credit for life experience should contact one of the faculty members in the Business Office Technology Department. For more information, call Sheri Valentin, Program Coordinator at (203) 285-2169 or email svalentin@gatewayct.edu.

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Course Requirements

First Semester

BIO* 110 - Principles of the Human Body **3 credits**
  or
BIO* 115 - Human Biology **4 credits**
BOT* 111 - Keyboarding for Information Processing I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
ENG* 101 - Composition **3 credits**
HIM* 101 - Medical Terminology **3 credits**

Total Semester Credits: 15-16

Second Semester

BOT* 137 - Word Processing Applications (Word) **3 credits**
BOT* 181 - Medical Coding I **3 credits**
BOT* 279 - BOT Administrative Practicum **4 credits**
BOT* 282 - Medical Administrative Procedures **3 credits**

Total Semester Credits: 13

Third Semester

BOT* 182 - Medical Coding II **3 credits**

Total Semester Credits: 3

Total Program Credits: 31-32

Business Office Technology: Medical Administrative Assistant Option, AS

The duties of a medical administrative assistant will vary among medical office environments such as hospitals, outpatient facilities, urgent or walk-in medical clinics and physician practices. In addition to regular office duties, a medical administrative assistant performs specialized tasks. These tasks include: appointment scheduling, medical record management (paper or electronic health information), billing and accounts payable services/procedures, transcribing medical procedures/treatments, medical coding and completing/processing of insurance claims. Students utilize state of the art medical office software/databases to maintain and to archive accurate patient health and financial documentation in accordance with state and federal regulations. For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Program Outcomes

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

> Demonstrate technical proficiency in office applications software including: word processing, operating system, electronic spreadsheet, database management, integrated office applications and presentation graphics.
> Exhibit verbal, non-verbal and written communication skills.
> Key and format business documents and demonstrate proofreading skills.
> Demonstrate effective use of soft skills including: professionalism, adaptability to change, initiative, confidentiality, positive attitude and human-relations and creativity and practice ethical behavior and 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.

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.

Administrative assistants play vital roles in American business, government, and industry. To prepare for these roles, students may choose from any of the three associate degrees or five certificate options described below. There is always a great demand for administrative assistants. Because college-trained administrative assistants possess a high level of skills, maturity, and a sophisticated attitude, they enter an organization with three advantages: 1) they command a better starting salary, 2) they may work for higher level executives, and 3) they will receive promotions more rapidly than those without a college degree.

Students enrolling in this program who have previous keyboarding instruction should contact a member of the Business Office Technology faculty at (203) 285-2177. Students with no previous keyboarding instruction are advised to take Keyboarding for Information Processing I (BOT* 111) in the summer session in order to follow the fall-spring sequence of courses. Students interested in receiving credit for life experience should contact one of the faculty members in the Business Office Technology Department. For more information, call Sheri Valentin, Program Coordinator at (203) 285-2169 or email svalentin@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

> BOT* 111 - Keyboarding for Information Processing I **3 credits**
> CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
> HIM* 101 - Medical Terminology **3 credits**
> ENG* 101 - Composition **3 credits**
> MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 15

Second Semester

ACC* 100 - Basic Accounting **3 credits**
BES* 218 - Entrepreneurship **3 credits**
    or
IDS 106 - Critical Thinking - Business **3 credits**
BOT* 137 - Word Processing Applications (Word) **3 credits**
BOT* 181 - Medical Coding I **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**

Total Semester Credits: 15

Third Semester

BBG* 210 - Business Communication **3 credits**
BIO* 110 - Principles of the Human Body **3 credits**
    or
BIO* 115 - Human Biology **4 credits**
BOT* 182 - Medical Coding II **3 credits**
CSA* 140 - Database Applications (Access) **3 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 15-16

Fourth Semester

BOT* 112 - Keyboarding for Information Processing II **3 credits**
BOT* 219 - Integrated Microsoft Office **3 credits**
BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet) **3 credits**
BOT* 279 - BOT Administrative Practicum **4 credits**
BOT* 282 - Medical Administrative Procedures **3 credits**

Total Semester Credits: 16

Total Program Credits: 61-62

Business Office Technology: Office Applications Skills Update Certificate

Designed for practicing office professionals as well as those returning to the workforce. It provides students with the opportunity to update their computer skills, increase their employability and advance in their careers. Students utilize state of the art software applications in word processing, spreadsheet, database management and presentation software. For more information, call Instructor Sandy Kraus, Program Coordinator at (203) 285-2359 or email skraus@gatewayct.edu.

Program Outcomes

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

Demonstrate technical proficiency in office applications software including: word processing, operating system, electronic spreadsheet, database management, integrated office applications and presentation graphics.
Exhibit verbal, non-verbal and written communication skills.
Key and format business documents and demonstrate proofreading 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.

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.

Administrative assistants play vital roles in American business, government, and industry. To prepare for these roles, students may choose from any of the three associate degrees or five certificate options described below. There is always a great demand for administrative assistants. Because college-trained administrative assistants possess a high level of skills, maturity, and a sophisticated attitude, they enter an organization with three advantages: 1) they command a better starting salary, 2) they may work for higher level executives, and 3) they will receive promotions more rapidly than those without a college degree.

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Suggested Course Sequence

BOT* 137 - Word Processing Applications (Word) **3 credits**
BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet) **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
CSA* 140 - Database Applications (Access) **3 credits**

Total Program Credits: 12

Business Office Technology: Paralegal Option, A.S.

The Legal Administrative Assistant Paralegal Option is a transfer option geared toward entrance into the University of New Haven's paralegal studies certificate or associate degree program. For more information, please call Instructor Sandy Kraus, Program Coordinator at 203.285.2359 or email skraus@gatewayct.edu.

Program Outcomes

Upon successful completion, students should be able to:

> Differentiate between the various kinds of law offices, courses, corporate legal departments, law schools, and a wide range of other office settings.
> Exhibit effective verbal and written legal communication skills.
> Demonstrate skills in law office procedures and legal document production.
> Employ the use of technology appropriate for use in the legal environment.
> Proofread and edit documents accurately.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
BBG* 231 - Business Law I **3 credits**
CSA* 105 - Introduction to Software Applications **3 credits**
    or
CSC* 101 - Introduction to Computers **3 credits**
POL* 111 - American Government **3 credits**
Choose any course in CALT: Critical Analysis/Logical Thinking 3 credits

Total Semester Credits: 15

Second Semester

BBG* 232 - Business Law II **3 credits**
CJS* 101 - Introduction to Criminal Justice **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 137 - Intermediate Algebra **3 credits**

Total Semester Credits: 15

Third Semester

BOT* 272 - Legal Administrative Procedures **3 credits**
CSA* 140 - Database Applications (Access) **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
HIS* 101 - Western Civilization I **3 credits**

Choose one course in SK: Scientific Knowledge & Understanding 3 - 4 credits

Total Semester Credits: 15-16

Fourth Semester

BBG* 210 - Business Communication **3 credits**
BOT* 219 - Integrated Microsoft Office **3 credits**
BOT* 271 - Legal Document Production **3 credits**
BOT* 279 - BOT Administrative Practicum **4 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 16

Total Program Credits: 61-62

CHEMISTRY

CSCU Pathway Transfer Degree: Chemistry Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Chemistry - General Program, B.S.
	Chemistry - American Chemical Society Certified, B.S.
At Southern Connecticut State University	Chemistry, B.S.
	Chemistry - American Chemical Society Certified, B.S.
At Western Connecticut State University	Chemistry - Non-American Chemical Society Approved, B.A.
	Chemistry - American Chemical Society Approved, B.A.
At Charter Oak State College	General Studies - Chemistry Concentration, B.A.

Here is the recommended course of study for the Chemistry Studies Transfer Degree. 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.

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First Semester

CHE* 121 - General Chemistry I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 254 - Calculus I **4 credits**
   Unrestricted Elective: If you have not taken physics in high school, you should use this elective to take PHY* 110 Introductory Physics.

Total Semester Credits: 14-15

Second Semester

CHE* 122 - General Chemistry II **4 credits**
MAT* 256 - Calculus II **4 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 14

Third Semester

Begin the transfer application process in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

CHE* 211 - Organic Chemistry I **4 credits**
PHY* 221 - Calculus-Based Physics I **4 credits**
Choose one course in Social Phenomena **3 credits**
Choose one Unrestricted Elective **3 credits**

> **Unrestricted Electives**: You are free to choose any course at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at CCSU, ECSU and WCSU 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 Semester Credits: 14

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation.

PHY* 222 - Calculus-Based Physics II **4 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one course in Oral Communications **3 credits**
Choose one Unrestricted Elective **0 - 3 credits** (if you have taken PHY 110 or MAT 186, you will not need this elective)

Total Semester Credits: 14-17

CLEAN WATER MANAGEMENT

Clean Water Management Certificate

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 Environmental Protection (DEP). 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. For more information, contact Eric Flynn at (203) 285-2371 or e-mail eflynn@gatewayct.edu).

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 CT DEP Wastewater Treatment Plant Operator Certification Examinations.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CWM* 106 - Introduction to Utility Management **3 credits**
CWM* 108 - Chemistry, Biology & Mathematics of Clean Water **4 credits**
CWM* 110 - Clean Water I **3 credits**
    or
CWM* 112 - Clean Water II **3 credits**
CWM / ENV / EVS / WMT (Elective) **3 credits**

Total Semester Credits: 13

Second Semester

CWM* 112 - Clean Water II **3 credits**
    or
CWM* 114 - Clean Water III **3 credits**
ENV* 110 - Environmental Regulations **3 credits**
CWM / ENV / EVS / WMT (Elective) **3 credits** +
Biology (Elective) **3 credits** ++

Total Semester Credits: 13

Total Program Credits: 26

COMMUNICATIONS

CSCU Pathway Transfer Degree: Communication Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Strategic Communications, B.A.
At Eastern Connecticut State University	Communication, B.S.
At Southern Connecticut State University	Communication - Advertising and Promotions, B.S.
	Communication - Film, Television, and Digital Production, B.S.
	Personal and Professional Communication, B.S.
At Western Connecticut State University	Communication - Communication Studies, B.A.
At Charter Oak State College	General Studies - Communication Concentration, B.A.

Here is the recommended course of study for the Communication Studies Transfer Degree. 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.

Please contact a campus advisor for more information:

Professor Germaine Frosolone at: GFrosolone@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

COM* 173 - Public Speaking **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one Unrestricted Elective*

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field--you must complete 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.
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.

Total Semester Credits: 15

Second Semester

COM* 101 - Introduction to Mass Communication **3 credits**

Choose one course in Written Communication II **3 credits**

Choose one course in Scientific Reasoning **3-4 credits**

Choose one course in Quantitative Reasoning **3 credits**

Choose one Unrestricted Elective*

> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field--you must complete 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 Semester Credits: 15-16

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

COM* 121 - Journalism I **3 credits**
> or

COM* 141 - Television Production I **3 credits**
> or

COM* 172 - Interpersonal Communication **3 credits**

Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Choose one course in Social Phenomena **3 credits**

Choose one course in General Education I - Creativity **3 credits**

Choose one Unrestricted Elective* **3 credits**

> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field--you must complete 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 Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

Choose one course in Critical Thinking and Logical Analysis **3 credits**

Choose one course in Oral Communications **3 credits**

Choose one course in General Education II - Global Knowledge **3 credits**

Choose two additional Communications courses **6 credits**

Total Semester Credits: 15

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Total Program Credits: 60-61

COMPUTER AIDED DRAFTING (CAD)

Computer Assisted Drafting Certificate

This certificate program develops entry-level skills for individuals interested in using Computer Aided Drafting (CAD) to produce detailed architectural or schematic drawings based on rough sketches, specifications, and calculations made by scientists, engineers, and designers. CAD software permits easy modification and preparation of designs. Furthermore, it allows a drafter to view a design from various angles not easily achieved with traditional board approaches. AutoCAD and Solidworks software is used in this program. Every course offered in the Computer Aided Drafting certificate program is offered in the Manufacturing Engineering Technology program. Every graduate of the Manufacturing Engineering Technology program will automatically qualify for a CAD certificate. Students enrolling in this program should plan on spending approximately $60.00 on drafting equipment. For more information, call Jacob Jackson, Program Coordinator at (203) 285-2428 or e-mail jjackson1@gatewayct.edu.

CAD Program Outcomes

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

Prepare drawings of machine components through techniques of technical drawing
Use AutoCad software to develop two-dimensional technical drawings
Utilize Solidworks and other parametric software to design, develop, and analyze three-dimensional components
Understand the fundamentals and foundations of manufacturing processes
Develop an understanding of the principles of algebra and trigonometry.
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Program Requirements

First Semester

ARC* 133 - Technical Drafting **3 credits**
CAD* 108 - CAD Introduction **3 credits**
CET* 116 - Computer Applications for Technology **3 credits**
MFG* 102 - Manufacturing Processes **3 credits**

Total Semester Credits: 12

Second Semester

CAD* 200 - 3D CAD Modeling **4 credits**
CAD* 220 - Parametric Design **3 credits**
CAD* 271 - CAD Solids Mechanical Pro-Engineer **3 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits**

Total Semester Credits: 13

Total Program Credits: 25

COMPUTER ENGINEERING TECHNOLOGY

Computer Engineering Technology, AS

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.

Program 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 communication systems
- Use diagnostic software and testing equipment to troubleshoot problems
- Install and configure computer hardware and software
- Understand 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). For more information, contact Christine Cherry, Program Coordinator at (203) 285-2372 or e-mail CCherry@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CAD* 124 - CAD: Electrical **1 credits**
CET* 116 - Computer Applications for Technology **3 credits**
EET* 110 - Electric Circuits I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**

Total Semester Credits: 15

Second Semester

CET* 124 - Structured Programming **4 credits**
EET* 136 - Electronics I **4 credits**
MAT* 254 - Calculus I **4 credits**
PHY* 121 - General Physics I **4 credits**

Total Semester Credits: 16

Third Semester

CET* 126 - Computer Servicing **4 credits**
CET* 210 - Computer Systems Software **4 credits**

COM* 173 - Public Speaking **3 credits**
CST* 180 - Networking I **4 credits**

Total Semester Credits: 15

Fourth Semester

CET* 270 - Computer Engineering Technology Practicum **3 credits**
CST* 273 - Security Management Practices **3 credits**
EET* 252 - Digital Electronics **4 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
    Choose one course in Social Phenomena (SP) **3 credits**

Total Semester Credits: 16

Total Program Credits: 62

COMPUTER SCIENCE

Computer Science Certificate

The Computer Science Certificate program provides students with requisite skills for entry-level positions. The program is especially suited to those who wish to gain more marketable or updated skills. For more information, call Associate Professor Stacy Walker, Program Coordinator, at (203) 285-2462 or email swalker@gatewayct.edu.

Program Outcomes

Identify the principle components of a computer system and describe their typical characteristics

Solve problems and develop algorithms using control structure abstractions of sequence, selection, and repetition, following a disciplined approach

Describe the social responsibilities of the computing professional and the impact of computing on society

Discuss the organization of the Internet and demonstrate the ability to use various Internet tools

Describe LAN topologies, protocols, transmission media, and access methods

Analyze, design, code, test, and debug sophisticated and complex programs in two high-level languages using appropriate software design methodologies and design and query a relational database using Structured Query Language (SQL).

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CSC* 101 - Introduction to Computers **3 credits**
    or
CSA* 105 - Introduction to Software Applications **3 credits**
CST* 133 - Networking Fundamentals I **4 credits**
    or
CST* 152 - Introduction to Web Page and Design **4 credits**

Total Semester Credits: 7

Second Semester

CSC* 215 - Programming with Object Oriented C++ **4 credits**
CSC* 150 - Database Applications and Design - Using SQL **4 credits**
    Restricted Elective - Choose any CSC, CST or DTS course **(6 - 8 credits)**

Total Semester Credits: 14 - 16

Total Program Credits: 21 - 23

Computer Science, AS

Students enrolled in the Computer Science Technology program receive a broad programming background, including training in C++, and any of the following restricted electives: Java, JavaScript, PHP, Python, Visual Basic, SQL and XHTML, microcomputer software packages and networking. Using industry-oriented applications, students have the opportunity to design, write, and test programs in a variety of programming languages. Furthermore, this program introduces networks that allow users to share hardware, software, and information. The Computer Science program allows students to design much of their technical curriculum based on their unique goals. Students may take a broad variety of courses or prepare for such specific technical careers as application programmers, programmer analysts, systems analysts, or systems programmers. For more information, call Associate Professor Stacy Walker, Program Coordinator, at (203)285-2462 or email swalker@gatewayct.edu.

Program Outcomes

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

Identify the principal components of a computer system and describe their typical characteristics

Solve problems and develop algorithms using control structure abstractions of sequence, selection, and repetition, following a disciplined approach

Describe the social responsibilities of the computing professional and the impact of computing on society

Discuss the organization of the Internet and demonstrate the ability to use various Internet tools

Describe LAN topologies, protocols, transmission media, and access methods

Analyze, design, code, test, and debug sophisticated and complex programs in two high-level languages using appropriate software design methodologies and design and query a relational database using Structured Query Language (SQL)

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CSA* 105 - Introduction to Software Applications **3 credits**
> **or**

CSC* 101 - Introduction to Computers **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 115 - Mathematics for Science and Technology **3 credits** (or higher)
Restricted Elective (see below) **7 credits**

Total Semester Credits: 12

Second Semester

CSC* 215 - Programming with Object Oriented C++ **4 credits**
CST* 180 - Networking I **4 credits**
> **or**

CST* 133 - Networking Fundamentals I **4 credits**
ENG* 102 - Literature and Composition **3 credits**
> **or**

ENG* 200 - Advanced Composition **3 credits**
Choose one course in OC (Oral Communications) **3 credits**

Total Semester Credits: 14

Third Semester

CSC* 150 - Database Applications and Design - Using SQL **4 credits**
Choose one course in (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**
Choose one course in (Gen Ed - CALT: Critical Analysis/Logical Thinking) **3 credits**
Restricted Electives (see below) **8 credits**

Total Semester Credits: 18

Fourth Semester

CSA* 296 - CWE - Computer Applications **3 credits**
    or
Restricted Elective (see below) **3 credits**
CSC* 250 - Systems Analysis and Design **3 credits**
Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge & Understanding) **3-4 credits**
Restricted Electives (see below) **7 credits**

Total Semester Credits: 16 - 17

Total Program Credits: 60-61

Restricted Electives

Any CSC*, CST* or DTS* course **3 credits**

CSCU Pathway Transfer Degree: Computer Science Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Computer Science, B.S. - Alternative Program
	Computer Science, B.S. - Honors
At Eastern Connecticut State University	Computer Science, B.S.
At Southern Connecticut State University	Computer Science, B.S. - General Program
At Western Connecticut State University	Computer Science, B.S.

Here is the recommended course of study for the Computer Science Studies Transfer Degree. 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.

Please contact a campus advisor for this program:

Professor Stacy Walker: SWalker@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

CSC* 124 - Programming Logic & Design with Python **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**
Choose one course in Scientific Reasoning from the following:
BIO* 121, CHE* 121, PHY* 221

Total Semester Credits: 14

Second Semester

CSC* 223 - Introduction to Java Programming **4 credits**
MAT* 254 - Calculus I **4 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Knowledge and Understanding **(from list below--you must choose the second course in the sequence you began in the first semester) 4 credits**
BIO* 122, CHE* 122, PHY* 222

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

CSC* 150 - Database Applications and Design - Using SQL **4 credits**
MAT* 256 - Calculus II **4 credits**
Choose one course in Social Phenomena **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 17

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

CSC* 257 - Web Development with PHP **4 credits**
EET* 252 - Digital Electronics **4 credits**
MAT* 210 - Discrete Mathematics **3 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one course in Oral Communication **3 credits**

Total Semester Credits: 17

Total Program Credits: 63

COMPUTER SCIENCE TECHNOLOGY

Computer Science: Data Security Specialist Option, AS

The Computer Science: Data Security Specialist will prepare students to be employed as specialists in I.T. data security. This program addresses the security specialist's everyday tasks of configuring, monitoring, and repairing areas with security breach potential. These tasks include data security, Internet security, network security, email security, client and server forensics, and security for databases and database users. Instruction in recognizing and intervening with malware is included as well. For more information, please call Associate Professor/Program Coordinator Stacy Walker at 203-285-2462 or SWalker@gatewayct.edu.

Program Outcomes

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

Recognize security vulnerabilities for multiple types of networks and apply appropriate security hardware and software to network structures

Practice the fundamentals of cryptography, data hiding/steganography, and forensics

Identify malware, internal/external security attacks, and intervention procedures/protocols

Employ the risk management model to identify forensically corporate threats and asses them in terms of their likelihood and impact

Analyze the transmission infrastructure and client/server hardware and software that support the Internet

Devise the framework for a generic security policy manual, identifying the items to be protected, the parties responsible, and a plan for response when a security breach is uncovered

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CSC* 101 - Introduction to Computers **3 credits**
   or
CSA* 105 - Introduction to Software Applications **3 credits**
CSC* 150 - Database Applications and Design - Using SQL **4 credits**
CST* 133 - Networking Fundamentals I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits**

Total Semester Credits: 17

Second Semester

CST* 280 - Network Security **3 credits**
CST* 284 - Malware and Intervention **3 credits**
ENG* 102 - Literature and Composition **3 credits**
   or
ENG* 200 - Advanced Composition **3 credits**
Choose any course in Oral Communication (OC) - **3 credits**

Total Semester Credits: 12

Third Semester

CST* 285 - Attacks and Counter Measures **3 credits**
CST* 287 - Cryptography Fundamentals **3 credits**
Choose one course in (Gen Ed - SP: Social Phenomena) **3 credits**
Restricted Elective 1 (any CSC, CST, or DTS course) **6 credits**

Total Semester Credits: 15

Fourth Semester

CST* 196 - Protocol Analysis **3 credits**
CST* 289 - Cyber Forensics **3 credits**
Restricted Elective (any CSC, CST, or DTS course) **3 credits**
    Choose any course in Scientific Knowledge (SK): BIO, CHE, EAS, EVS, PHY) **4 credits**
    Choose any course in CALT - **3 credits**

Total Semester Credits: 16

Total Program Credits: 60-61

Restricted Electives

Restricted Electives 1

Restricted Electives 2

CSA* 140 - Database Applications (Access) **3 credits**
CSC* 150 - Database Applications and Design - Using SQL **4 credits**

Restricted Electives 3

CSC* 110 - Computer Logic and Problem Solving **3 credits**
CSC* 124 - Programming Logic & Design with Python **3 credits**
CSC* 207 - Introduction to Visual Basic I **4 credits**
CSC* 208 - Advanced Visual Basic **4 credits**
CSC* 215 - Programming with Object Oriented C++ **4 credits**
CSC* 223 - Introduction to Java Programming **4 credits**
CSC* 257 - Web Development with PHP **4 credits**
CST* 259 - JavaScript **4 credits**

Computer Science: Mobile Application Development Option, AS

The Computer Science Mobile Application Development program will enable students to develop skills in website and native app design, learn relevant programming languages for application development on a variety of smart-devices and learn the policies and practical application of current and emerging standards and technologies across multiple mobile devices. For more information, please call Associate Professor/Program Coordinator Stacy Walker at 203-285-2462 or SWalker@gatewayct.edu.

Program Outcomes

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

Plan, design, code, test and debug solutions to programming problems using a variety of programming languages
Gain an understanding of fundamental object-oriented programming concepts and principles, including encapsulation, inheritance, and polymorphism.
Compare and contrast mobile platforms, their tools, and the development process
Install software development kits for each mobile item platform
Demonstrate understanding of the development cycle for mobile devices including building, testing, and deployment
Create apps for Apple iOS, Google Android, and Microsoft Windows and create cross-platform web applications for mobile devices

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CSC* 101 - Introduction to Computers **3 credits**
    or
CSA* 105 - Introduction to Software Applications **3 credits**
CSC* 262 - Programming Mobile Devices I **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 115 - Mathematics for Science and Technology **3 credits** (or higher)

Total Semester Credits: 15

Second Semester

CSC* 215 - Programming with Object Oriented C++ **4 credits**
CSC* 263 - Programming Mobile Devices II **3 credits**
CST* 180 - Networking I **4 credits**
    or
CST* 133 - Networking Fundamentals I **4 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Choose one course in (OC: Oral Communications) **3 credits**

Total Semester Credits: 17

Third Semester

CSC* 150 - Database Applications and Design - Using SQL **4 credits**
Choose one course in (CALT: Critical Analysis/Logical Thinking) **3 credits**
Choose one course in (SP: Social Phenomena/Knowledge/Understanding) **3 credits**
Restricted Elective (see below) **3-4 credits**

Total Semester Credits: 16-18

Fourth Semester

CSA* 296 - CWE - Computer Applications **3 credits**
    or
Restricted Elective (see below) **3-4 credits**
CSC* 223 - Introduction to Java Programming **4 credits**
CSC* 250 - Systems Analysis and Design **3 credits**
Choose any course in BIO*, CHE*, EAS*, EVS*, PHY* (SK: Scientific Knowledge & Understanding) **3-4 credits**

Total Semester Credits: 12-13

Total Program Credits: 60-63

Restricted Electives

Any CSC*, CST* or DTS* course

Computer Science: Networking Administrator Certificate

The objective of the Computer Science Network Administrator Certificate is to prepare students for an entry-level position in information technology as a Network Administrator. This certificate addresses the network administrator's day to day tasks of installation, equipment setup, hardware and software configuration, and the maintenance of users and groups, and other network resources on a domain network system. Students can be eligible for the CompTIA Network + certificate. For more information, please call Associate Professor/Program Coordinator Stacy Walker at 203-285-2462 or SWalker@gatewayct.edu.

Program Outcomes

Install, manage, and troubleshoot Client and Server software
Organize and maintain Windows 2000 Servers and Netware Servers
Set up and manage user accounts
Install, configure, and maintain directory services and network printers
Backup and restore data
Install and access remote connectivity

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CSC* 101 - Introduction to Computers **3 credits**
CST* 127 - Server Operating System **4 credits**
CST* 133 - Networking Fundamentals I **4 credits**

Total Semester Credits: 11

Second Semester

CST* 149 - Computer Network Hardware **4 credits**
CST* 188 - Networking Fundamentals II **4 credits**
CST* 273 - Security Management Practices **3 credits**

Total Semester Credits: 11

Total Semester Credits: 22

Computer Science: Networking Certificate

The objective of the Computer Science Networking Certificate is to help meet the growing need for qualified networking specialists in the Greater New Haven area. This Certificate will allow students to focus on the specific knowledge, skills and abilities that have been identified and recommended by the computer industry. Upon successful completion, the graduating student will leave Gateway Community College with the ability and knowledge to pass three industry -recognized networking examinations: Certified Cisco Network Engineer; Network+; and Novell Certified Network Administrator. For more information, call Associate Professor Stacy Walker, Program Coordinator, at (203) 285-2462 or email swalker@gatewayct.edu.

Program Outcomes

Plan and install security
Describe physical topologies, logical topologies and all terminology used in networked environments
Identify and describe the functions of each of the layers of the OSI reference model and the TCP/IP network layer protocols
Describe the different classes of IP addressing and subnetting
Configure IP addresses
Describe LAN segmentation using bridges, routers, and switches
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

CSC* 101 - Introduction to Computers **3 credits**
    or
CSA* 105 - Introduction to Software Applications **3 credits**
CST* 133 - Networking Fundamentals I **4 credits**
    or
CST* 180 - Networking I **4 credits**
CST* 152 - Introduction to Web Page and Design **4 credits**

Total Semester Credits: 11

Second Semester

CSC* 150 - Database Applications and Design - Using SQL **4 credits**
CSC* 215 - Programming with Object Oriented C++ **4 credits**
Restricted Electives: Any CSC, CST or DTS course - **3 - 4 credits**

Total Semester Credits: 11 - 12

Total Program Credits: 22 - 23

Computer Science: Networking Option, A.S.

The Computer Science Networking Option allows students to focus on the specific knowledge, skills, and abilities identified and recommended by the computer network industry. The program will prepare students for the networking field, specifically focusing on certification as a Network Administrator. It is highly recommended that students consult with the Computer Science program coordinator for specific advising.

Network Administrator Path

This path takes you through the lower levels of networking mainly working with network devices such as switches, routers, server/client computers, server/client operating systems, printers, KVM switches, wireless devices, data backup devices, power backup devices, wire racks, patch panels, wall plates and network wiring. Students completing this path can earn a Gateway Community College certificate as well as be eligible to apply for the CompTIA Network+ certificate. For more information, please call Associate Professor/Program Coordinator Stacy Walker at 203-285-2462 or SWalker@gatewayct.edu.

Program Outcomes

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

Install, manage and troubleshoot Client and Server software
Organize and maintain Windows 2000 Servers and Netware Servers
Set up and manage user accounts
Install, configure, and maintain directory services and network printers
Backup and restore data
Install and access remote connectivity.

Please click here for important information regarding: Becoming Connecticut State Community College

Computer Science: Networking Option (Cisco/Network Admin)

The Computer Science Networking Option allows students to focus on the specific knowledge, skills, and abilities identified and recommended by the computer network industry. Theprogram will prepare students for the networking field, specifically focusing on certifications as Cisco Certified Network Associate (CCNA). It highly recommended that students consult with the Computer Science Program Coordinator, Stacy Walker at (203) 285-2462 or SWalker@gatewayct.edu.

First Semester

CSC* 101 - Introduction to Computers **3 credits**
   or
CSA* 105 - Introduction to Software Applications **3 credits**
CST* 133 - Networking Fundamentals I **4 credits**
      or
CST* 180 - Networking I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits** (or higher)

Total Semester Credits: 13

Second Semester

CSC* 215 - Programming with Object Oriented C++ **4 credits**
ENG* 102 - Literature and Composition **3 credits**
   or
ENG* 200 - Advanced Composition **3 credits**
Choose one course in Oral Communication **3 credits**
Restricted Electives (see below) **6 credits**

Total Semester Credits: 16

Third Semester

CSC* 150 - Database Applications and Design - Using SQL **4 credits**
Choose one course in Social Phenomena **3 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Restricted Electives (see below) **8 credits**

Total Semester Credits: 18

Fourth Semester

CSA* 296 - CWE - Computer Applications **3 credits**
CSC* 250 - Systems Analysis and Design **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**
   Restricted Elective (see below) **4 credits**

Total Semester Credits: 13 - 14

Restricted Electives

Choose any CST* or DTS* course **3 - 4 credits**

Total Program Credits: 60-61

CONNECTICUT COLLEGE OF TECHNOLOGY

Connecticut's College of Technology is an innovative course of study for students considering a career in the challenging and rewarding fields of engineering and technology. It is an integrated curriculum at Connecticut's public and private colleges and universities, allowing individuals to begin their studies at Gateway Community College and progress directly into a bachelor's degree program at a four-year university. The curriculum consists of two distinct pathways: engineering and technology.

The **Engineering Science A.S.** degree leads to transfer to one of the following institutions: School of Engineering at the University of Connecticut, School of Engineering at the University of Hartford, School of Engineering at Fairfield University, and the University of Bridgeport.

The **Technology Studies A.S.** degree leads to transfer to the School of Technology at Central Connecticut State University or Charter Oak State College, Connecticut's external degree program. The Technology Pathway to the School of Technology at

Central Connecticut State University enables transfer into one of three programs: Engineering Technology, Industrial Technology, or Technology Management.

For information on any of the College of Technology Pathway programs, contact Susan Spencer at (203) 285-2452 or e-mail at (sspencer@gatewayct.edu).

Connecticut College of Technology Studies Pathways Program Objectives

Complete an Associate of Science Degree in Engineering Science.
Transition seamlessly into a Bachelor of Science Degree program in Engineering with junior level status in the receiving institution as part of the College of Technology Engineering Pathway Program.

College of Technology: Data Science Option

The Technology Studies: Data Science Option provides exposure and essential applications in 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. Students will be afforded more opportunities in the job market by providing them with highly sought-out preferred skills, The use of data science teams is becoming more popular in the business industry. This degree will allow graduates to enter this field early while receiving mentor-ship within organizations from senior data scientists. Students can also continue their education in College of Technology schools such as Southern CT State University, University of Hartford, Central CT State University, Fairfield University, and Sacred Heart University.

For more information, contact Professor Susan Spencer, Program Coordinator at (203) 285-2452 or sspencer@gatewayct.edu.

Data Science Program Learning Outomes:

Demonstrate the ability to assist in research, development, design, productions, testing and various other functions associate with Data Science.
Demonstrate a good undertanding of Data Science principles and conepts.
Demonstrate a good understanding of mathematical concepts.
Demonstrate good communication skills.
Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CHE* 111 - Concepts of Chemistry **4 credits**
    or
CHE* 121 - General Chemistry I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 167 - Principles of Statistics **3 credits**
MAT* 186 - Precalculus **4 credits**
Choose any course in HK (Historical Knowledge) - **3 credits**

Total Semester Credits: 17

Second Semester

COM* 173 - Public Speaking **3 credits**
CSC* 124 - Programming Logic & Design with Python **3 credits**
ENG* 202 - Technical Writing **3 credits**
MAT* 222 - Statistics II with Technology Applications **3 credits**
MAT* 254 - Calculus I **4 credits**

Total Semester Credits: 16

Third Semester

DTS* 201 - Data Science in R **3 credits**
DTS* 202 - Visual Analytics **3 credits**

MAT* 210 - Discrete Mathematics **3 credits**
MAT* 256 - Calculus II **4 credits**
PHY* 111 - Physics for the Life Sciences **4 credits**
  or
PHY* 121 - General Physics I **4 credits**

Total Semester Credits: 17

Fourth Semester

DTS* 220 - Introduction to Machine Learning **3 credits**
PSY* 111 - General Psychology I **3 credits**
  or
SOC* 101 - Principles of Sociology **3 credits**
Choose any course in Economics (ECN) - **3 credits**
Choose any course in Geography or Political Science (GEO or POL) - **3 credits**

Total Semester Credits: 18

Total Program Credits: 68

College of Technology: Engineering Science, AS

Connecticut College of Technology

COT - Engineering Science Student 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.

For more information regarding the College of Technology, please contact the Program Coordinator, Professor Susan Spencer at 203-285-2452 or SSpencer@gatewayct.edu

Click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CHE* 121 - General Chemistry I **4 credits**
EGR* 111 - Introduction to Engineering **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 254 - Calculus I **4 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 17

Second Semester

CHE* 122 - General Chemistry II **4 credits**
MAT* 256 - Calculus II **4 credits**
PHY* 221 - Calculus-Based Physics I **4 credits**
Restricted Elective (see below) **3-4 credits**

Total Semester Credits: 15-16

Third Semester

EGR* 211 - Engineering Statics **3 credits**
HIS* 101 - Western Civilization I **3 credits**
MAT* 268 - Calculus III: Multivariable **4 credits**
PHL* 111 - Ethics **3 credits**
PHY* 222 - Calculus-Based Physics II **4 credits**

Total Semester Credits: 17

Fourth Semester

EGR* 212 - Engineering Dynamics **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
ART* 101 - Art History I **3 credits**
    or
ART* 102 - Art History II **3 credits**
    or
MUS* 101 - Music History and Appreciation I **3 credits**
MAT* 285 - Differential Equations **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Total Program Credits: 64-66

Restricted Electives:

ARC* 133 - Technical Drafting **3 credits**
CAD* 108 - CAD Introduction **3 credits**
CET* 110 - DC/AC Circuits **5 credits**
CET* 116 - Computer Applications for Technology **3 credits**
CET* 124 - Structured Programming **4 credits**
ECN* 101 - Macroeconomics **3 credits**

College of Technology: Technology Studies, AS

Connecticut College of Technology

COT Technology Studies Program 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 the function on teams

Recognize the need to engage in life-long learning.

For more information regarding the College of Technology, please contact the Program Coordinator, Professor Susan Spencer at 203-285-2452 or SSpencer@gatewayct.edu.

Suggested Course Sequence

First Semester

ENG* 101 - Composition **3 credits**
HIS* 101 - Western Civilization I **3 credits**
MAT* 186 - Precalculus **4 credits**
PHY* 121 - General Physics I **4 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 17

Second Semester

CAD* 108 - CAD Introduction **3 credits**
ECN* 101 - Macroeconomics **3 credits**
ENG* 102 - Literature and Composition **3 credits**
PHY* 122 - General Physics II **4 credits**
MEC* 104 - Mechanics - Statics **3 credits**

Total Semester Credits: 16

Third Semester

ART* 101 - Art History I **3 credits**
　　or
ART* 102 - Art History II **3 credits**
　　or
MUS* 101 - Music History and Appreciation I **3 credits**
CHE* 121 - General Chemistry I **4 credits**
COM* 173 - Public Speaking **3 credits**
MAT* 167 - Principles of Statistics **3 credits**
MEC* 265 - Materials Science **4 credits**

Total Semester Credits: 17

Fourth Semester

CAD* 200 - 3D CAD Modeling **4 credits**
PHL* 111 - Ethics **3 credits**
GEO*, POL*, or HIS* (Elective) **3 credits**
Restricted Electives (see below) **6 credits**

Total Semester Credits: 16

Total Program Credits: 66

Restricted Electives:

For more information, contact Susan Spencer, Program Coordinator at (203) 285-2452 or e-mail sspencer@gatewayct.edu.

ARC* 133 - Technical Drafting **3 credits**
BME* 110 - Biomedical Technology **2 credits**
BME* 112 - Biomedical Electrical Circuits **5 credits**
BME* 114 - Biomedical Electronics **5 credits**
BME* 116 - Physiological Systems **4 credits**
BME* 210 - Biomedical Instrumentation **4 credits**
BME* 212 - Biomedical Equipment Design **4 credits**
BME* 214 - Advanced Biomedical Instrumentation **4 credits**
BME* 220 - Biomedical Practicum **3 credits**
CAD* 126 - Electronics Graphics **3 credits**
CET* 110 - DC/AC Circuits **5 credits**
CET* 116 - Computer Applications for Technology **3 credits**
CET* 120 - Computer Electronics **5 credits**
CET* 124 - Structured Programming **4 credits**
CET* 126 - Computer Servicing **4 credits**
CET* 210 - Computer Systems Software **4 credits**
CET* 220 - Digital/Data Communications **4 credits**
CSC* 262 - Programming Mobile Devices I **3 credits**
CSC* 263 - Programming Mobile Devices II **3 credits**
CSC* 101 - Introduction to Computers **3 credits**
CSC* 110 - Computer Logic and Problem Solving **3 credits**
CSC* 124 - Programming Logic & Design with Python **3 credits**
CSC* 150 - Database Applications and Design - Using SQL **4 credits**
CST* 133 - Networking Fundamentals I **4 credits**
CST* 180 - Networking I **4 credits**
CST* 181 - Networking II **4 credits**
CST* 182 - Networking III **4 credits**
CST* 183 - Networking IV **4 credits**
CST* 188 - Networking Fundamentals II **4 credits**
CST* 127 - Server Operating System **4 credits**
EET* 103 - Fundamentals of Electricity **4 credits**
EET* 110 - Electric Circuits I **4 credits**
EET* 114 - Electric Circuits II **4 credits**
EET* 136 - Electronics I **4 credits**

EET* 232 - Electronics II **4 credits**
ENV* 110 - Environmental Regulations **3 credits**
ENV* 230 - Environmental Engineering **3 credits**
ENV* 100 - Introduction to Alternative Energy Systems **3 credits**
MEC* 104 - Mechanics - Statics **3 credits**
MEC* 234 - Electromechanical Controls **4 credits**
MEC* 240 - Fundamentals of Thermodynamics **4 credits**
MEC* 250 - Strength of Materials **3 credits**
MEC* 265 - Materials Science **4 credits**
MEC* 271 - Fluid Mechanics **4 credits**
MEC* 283 - Design of Machines **4 credits**
MFG* 102 - Manufacturing Processes **3 credits**
MFG* 108 - Computer Aided Manufacturing **4 credits**
MFG* 116 - Quality Assurance Organization and Management **4 credits**
MFG* 204 - Advanced Computer Aided Manufacturing **4 credits**
MFG* 208 - Process Engineering **4 credits**
MFG* 210 - Materials of Engineering **4 credits**
MFG* 216 - Tool Designing **4 credits**
MFG* 228 - Computer Integrated Manufacturing I **4 credits**

CRIMINAL JUSTICE

Criminal Justice, A.S.

The Criminal Justice degree program is designed for students who plan to enter the workforce after completing an Associate's Degree, or who are already employed by a law enforcement or criminal justice agency. For more information, please contact, Dr. Kristina Veselak at (203) 285-2229 or email KVeselak@gatewayct.edu.

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 laws that protect the rights of and regulate the conduct of individuals in a culturally diverse society.

Demonstrate knowledge of theories, principles, and processes of the criminal justice system.

Analyze the importance of legal, ethical, political, social, and psychological issues as they relate to crime and justice, with a focus on the over-representation of racial and ethnic minorities in the criminal justice system.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CJS* 101 - Introduction to Criminal Justice **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits**
SOC* 101 - Principles of Sociology **3 credits**
Choose one course in Aesthetic Dimensions - **3 credits**

Total Semester Credits: 15

Second Semester

CJS* 213 - Evidence and Criminal Procedures **3 credits**
    or
POL* 210 - Constitutional Law for Criminal Justice **3 credits**
HIS* 201 - U.S. History I **3 credits**
    or
HIS* 202 - U.S. History II **3 credits**
    or
HIS* 216 - African-American History I **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
PSY* 111 - General Psychology I **3 credits**
Choose one course in Scientific Reasoning (SR) **or** Scientific Knowledge and Understanding (SK) **3 - 4 credits**

Total Semester Credits: 15-16

Third Semester

CJS* 102 - Introduction to Corrections **3 credits**
CJS* 105 - Introduction to Law Enforcement **3 credits**
    or
CJS* 120 - Police and the Community **3 credits**
PSY* 245 - Abnormal Psychology **3 credits**
SOC* 240 - Criminology **3 credits**
DAR* 158 - Biology of Addiction **3 credits**
    or
HSE* 101 - Introduction to Human Services **3 credits**

Total Semester Credits: 15

Fourth Semester

COM* 173 - Public Speaking **3 credits**
PHL* 111 - Ethics **3 credits**
HUM* 125 - Introduction to Peace and Conflict Studies **3 credits**
    or
POL* 102 - Introduction to Comparative Politics **3 credits**
    or
POL* 111 - American Government **3 credits**
Choose one un-restricted elective course - **3 credits**
Choose one Restricted Elective (see below)

Total Semester Credits: 15

CJ Restricted Electives

CJS* 220 - Criminal Investigation **3 credits**
CJS* 211 - Criminal Law I **3 credits**
CJS* 225 - Forensic Science **3 credits**
CJS* 280 - Victimology **3 credits**
CJS* 290 - Criminal Justice Practicum **3 credits**
CJS* 294 - Contemporary Issues in Criminal Justice **3 credits**
SOC* 241 - Juvenile Delinquency **3 credits**

Total Program Credits: 60-61

CSCU Pathway Transfer Degree: Criminology Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Criminology, B.A.
At Eastern Connecticut State University	Criminology, B.A.
	Sociology with Criminology Minor, B.A.
At Southern Connecticut State University	Sociology with Criminal Justice Concentration, B.A.
At Western Connecticut State University	Justice and Law Administration with Corrections, Probation, and Offender Rehab Option,
	Justice and Law Administration with Law Enforcement Option, B.S.
	Justice and Law Administration with Legal Studies Option, B.S.
	Justice and Law Administration with Paralegal Studies Option, B.S.
	Justice and Law Administration with Criminology Option, B.S.
At Charter Oak State College	Criminal Justice, B.A.

Here is the recommended course of study for the Criminology Studies Transfer Degree. 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.

Please contact a campus advisor for this program:

Professor Lauren Doninger: LDoninger@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

CJS* 101 - Introduction to Criminal Justice **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 167 - Principles of Statistics **3 credits**
SOC* 101 - Principles of Sociology **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 15

Second Semester

Choose one course: CJS* 213 or POL* 210
Choose one course in Written Commnication II **3 credits**
Choose one course in Scientific Reasoning **3-4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

CJS* 105 - Introduction to Law Enforcement **3 credits**

Total Semester Credits: 15-16

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

CJS* 102 - Introduction to Corrections **3 credits**
SOC* 240 - Criminology **3 credits**
Choose one course in Scientific Knowledge and Understanding **3 credits**
Choose one course in General Education I or II **3 credits**
Choose any elective course of your choice **3 credits**

Total Semester Credits: 15-16

Fourth Semester

Choose one course from:
CJS* 211 - Criminal Law I **3 credits**
SOC* 241 - Juvenile Delinquency **3 credits**
CJS* 220 - Criminal Investigation **3 credits**
CJS* 225 - Forensic Science **3 credits**
CJS* 280 - Victimology **3 credits**
CJS* 290 - Criminal Justice Practicum **3 credits**
CJS* 294 - Contemporary Issues in Criminal Justice **3 credits**
　　Other courses you may choose that are not currently offered at Gateway:
CJS* 203, Juvenile Justice
CJS* 228, Forensic Evidence
CJS* 298, Special Topics in Criminal Justice
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one course in Oral Communications **3 credits**
Choose one Unrestricted Elective*
　　* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field--you must complete 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.
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

CULINARY ARTS

Culinary Arts Certificate

The Culinary Arts Certificate program is the first step toward a career in the food service industry. Full and part-time students obtain a well-rounded education, which combines laboratory, classroom, and work experiences. In addition to academic course work, students prepare and serve a wide variety of meals in Cafe Vincenzo staff, faculty, and the public. Individuals who wish to continue their studies following graduation may transfer courses in this program to similar programs at the baccalaureate level. For more information, please contact Assistant Professor/Program Coordinator Chris Gentile at (203) 285-2432 or cgentile@gatewayct.edu.

Program Learning Outcomes:

Analyze theory and techniques of food preparation and presentation as well as baking and pastry arts

Prepare menus incorporating costs, acquisition, and inventory controls

Summarize basic principles and concepts of the hospitality industry

Create and cater events

Prepare basic foods in quantity, including various regional foods and ethnic cuisine

Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including Hazard Analysis Critical Control Point and State of Connecticut law

Set-up and operate the 'front of the house'

Summarize managerial techniques and human resource management practice

Demonstrate appropriate problem-solving techniques in addressing management problems.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

HSP* 101 - Principles of Food Preparation **3 credits**
HSP* 103 - Principles of Baking I **3 credits**
HSP* 109 - Food Safety Certification **1 credits**
HSP* 112 - Advanced Food Preparation **4 credits**
HSP* 135 - Service Management **3 credits**
NTR 106 - Culinary Nutrition **2 credits**

Total Semester Credits: 16

Second Semester

HSP* 201 - International Foods **4 credits**
HSP* 210 - Buffet Catering **4 credits**
HSP* 215 - Principles of Baking II **3 credits**
HSP* 296 - Cooperative Education/Work Experience **3 credits**

Total Semester Credits: 14

Total Program Credits: 30

Culinary Arts, A.A.

The Culinary Arts Associate of Arts Degree program will give students the knowledge necessary to be successful in a restaurant or hotel kitchen, the kitchens of other food services for business and industry dining, healthcare facilities and schools. It will also give students the tools and skills to start work for businesses that supply foods at catered events, meeting and conventions centers, and supermarkets.

In addition to 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 in and out of start institutions of higher learning. Students may enroll in this program full- or part-time, day or evening.

For more information, please contact Assistant Professor/Program Coordinator, Chris Gentile at (203) 285-2432 or email CGentile@gatewayct.edu.

Culinary Arts Degree Outcomes:

Analyze theory and techniques of food preparation and presentation.

Prepare basic foods in quantity, including various regional foods.

Evaluate the establishment and maintenance of a safe and sanitary food-service operation including Hazard Analysis and Critical Control Points and State of Connecticut law.

Summarize basic principles and concepts of the hospitality industry.

Demonstrate appropriate problem-solving techniques in addressing management problems.

Prepare menus incorporating costs, acquisition and inventory controls.

Transfer acquired knowledge to the world of work.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ENG* 101 - Composition **3 credits**
HSP* 100 - Introduction to the Hospitality Industry **3 credits**
HSP* 101 - Principles of Food Preparation **3 credits**
HSP* 103 - Principles of Baking I **3 credits**
HSP* 109 - Food Safety Certification **1 credits**
HSP* 135 - Service Management **3 credits**

Total Semester Credits: 16

Second Semester

HSP* 112 - Advanced Food Preparation **4 credits**
HSP* 215 - Principles of Baking II **3 credits**
MAT* 109 - Quantitative Literacy **3 credits**
NTR 106 - Culinary Nutrition **2 credits**
Choose one course from either Aesthetic Dimensions or Oral Communications - **3 credits**

Total Semester Credits: 15

Third Semester

ENG* 102 - Literature and Composition **3 credits**
> **or**

ENG* 200 - Advanced Composition **3 credits**
HSP* 201 - International Foods **4 credits**
HSP* 211 - Food and Beverage Cost Control **3 credits**
HSP* 230 - Sustainable Food Service Management **3 credits**
Choose one course in Social Phenomena/Knowledge/Understanding - **3 credits**

Total Semester Credits: 16

Fourth Semester

HSP* 107 - Icing Artistry I **3 credits**
> **or**

HSP* 216 - Artisan Bread **3 credits**
> **or**

HSP* 225 - Principles of Baking III **3 credits**
HSP* 210 - Buffet Catering **4 credits**
HSP* 290 - Classical Cuisine **3 credits**
HSP* 296 - Cooperative Education/Work Experience **3 credits**
Choose one course in Scientific Knowledge/Understanding - **3 credits**

Total Semester Credits: 16-17

Total Program Credits: 63-64

Professional Baker Certificate

This certificate is designed to further the education and training for those already working in this field as well as to accommodate individuals entering careers in the field of Pastry Arts. Several credits courses are transferable to the Culinary Arts Certificate. As part of the course requirements, students participate in a work experience opportunity. Individuals who wish to continue their studies following graduation may transfer courses in this program to similar programs at the baccalaureate level. For more information, contact Assistant Professor/Program Coordinator Chris Gentile at (203) 285-2432 or CGentile@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Learning Outcomes

Analyze theory and techniques of baking and pastry arts
Evaluate the establishment and maintenance of a safe and sanitary foodservice operation including Hazard Analysis and Critical Control Point and State of Connecticut law
Decorate layer cakes with molded and sculpted decorations
Transfer acquired knowledge to the world of work.

Suggested Course Sequence

First Semester

HSP* 101 - Principles of Food Preparation **3 credits**
HSP* 103 - Principles of Baking I **3 credits**
HSP* 107 - Icing Artistry I **3 credits**
HSP* 109 - Food Safety Certification **1 credits**
HSP* 215 - Principles of Baking II **3 credits**

Total Semester Credits: 13

Second Semester

HSP* 216 - Artisan Bread **3 credits**
HSP* 225 - Principles of Baking III **3 credits**
HSP* 296 - Cooperative Education/Work Experience **3 credits**

Total Semester Credits: 9

Total Program Credits: 22

DENTAL HYGIENE

Pre-Dental Hygiene Transfer Compact: Liberal Arts & Sciences, A.A.

The Gateway Community College Pre-Dental Hygiene Transfer Compact is designed to provide academic opportunities for students who are seeking an Associate of Science or a Bachelor of Science Degree in Dental Hygiene. Students may complete pre-requisite and general education courses at Gateway Community College that will transfer to the University of New Haven's Dental Hygiene Program. Gateway students who complete the Associate in Arts Degree in Liberal Arts & Sciences 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 Associate of Science or 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.

For more information on the Pre-Dental Hygiene Transfer Compact, please contact Mary Beth Banks, Enrollment Services Assistant at 203.285.2388 or e-mail mbanks@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

    BIO* 105 - Introduction to Biology **4 credits**
        or
    BIO* 121 - General Biology I **4 credits**
    ENG* 101 - Composition **3 credits**
    HIS* 101 - Western Civilization I **3 credits**
        or
    HIS* 102 - Western Civilization II **3 credits**
    MAT* 137 - Intermediate Algebra **3 credits** (or higher)
    ART* 101 - Art History I **3 credits or**
    ART* 102 - Art History II **3 credits or**
    MUS* 101 - Music History and Appreciation I **3 credits**

Total Semester Credits: 16-17

Second Semester

    BIO* 211 - Anatomy and Physiology I **4 credits**
    CHE* 111 - Concepts of Chemistry **4 credits**
    ENG* 102 - Literature and Composition **3 credits**
    SOC* 101 - Principles of Sociology **3 credits**
    Choose one of the following: FRE* 102, ITA* 102, or SPA* 102 (or higher) **3 credits**

Total Semester Credits: 17

Third Semester

BIO* 212 - Anatomy and Physiology II **4 credits**
COM* 173 - Public Speaking **3 credits**
DNT* 105 - Introduction to Dental Hygiene I **1 credits**
PHL* 111 - Ethics **3 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 14

Fourth Semester

BIO* 235 - Microbiology **4 credits**
DNT* 106 - Introduction to Dental Hygiene II **1 credits**
NTR* 102 - Nutrition I: Principles of Nutrition **3 credits**
PSY* 112 - General Psychology II **3 credits**
Choose one: ECN* 101 or ECN* 102 **3 credits**

Total Semester Credits: 14

Total Program Credits: 61-62

DIAGNOSTIC MEDICAL SONOGRAPHY

Diagnostic Imaging and Therapy: Diagnostic Medical Sonography, AS

Information about the Diagnostic Imaging and Therapy Programs

The Associate Degree program in Diagnostic Medical Sonography prepares students for employment as an entry-level sonographer in hospitals, clinics, private offices and other facilities where Diagnostic Medical Sonography Imaging is available. The program requires approximately twenty-four months of full-time study. The program is sequential and includes didactic and supervised clinical education for all students. Students are assigned to a variety of clinical practicums while in the program. Students are required to attend all orientation sessions and classes scheduled in the summer.

A description of admissions requirements are available from the Allied Health Division and online at GatewayCT.edu. The associate degree program in Diagnostic Medical Sonography (DMS) provides individuals with the academic and technical skills to perform abdominal, obstetrical, small parts, gynecological, and vascular sonography procedures. Upon completion of the program students will be eligible to apply to take the national registry examination from the American Registry of Radiologic Technologists, and/ or the American Registry of Diagnostic Medical Sonographers (ARDMS). For more information, contact Mary Beth Banks at (203) 285-2388 or e-mail mbanks@gatewayct.edu or the Program Coordinator, Cara Case at (203) 285-2383 or e-mail at (ccase@gatewayct.edu)

The following pre-requisites must be completed with a grade of C or higher before applying to the Program: BIO* 211, BIO* 212 (within five years prior of application date), PHY* 111, MAT* 175, and ENG* 101.

Mission Statement

The Diagnostic Medical Sonography program at Gateway Community College is committed to educating and preparing competent entry level sonographers who can provide high quality imaging and patient care to members of the community. Furthermore, the program is dedicated to providing tools to support lifelong learning.

Accreditation Expectations

The minimum expectations of the DMS program, as defined by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), are for Abdomen-Extended, OBGYN and Vascular concentrations: the minimum expectations of the DMS program, as defined by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) are "to prepare competent entry-level Abdominal Extended, Obstetrics and Gynecology sonographers and vascular technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains." The following DMS program goals have been established to realize this mission.

Program Goals and Outcomes

  Students will demonstrate skills in effective oral and written communication
      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 demonstrate skills in critical thinking and problem solving principles and practices of sonography
      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 clinical competence in the practice of sonography

Student 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 ALARA principle.
The program will prepare competent entry-level sonographers.
Students will maintain high values congruent with the Professional Code of Conduct and the Scope of Practice while adhering to national, institutional and/or departmental standards, and procedures regarding imaging and patient care.
Students will achieve personal and professional growth.
Students will analyze professional publications
Students will utilize professional web sites.

Program Outcomes

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

Competently perform entry level sonography exams and tasks
Evaluate patients and perform quality patient care
Competently perform entry level sonography exams and tasks
Evaluate patients and perform quality patient care
Maintain professional ethics and behaviors as described by the SDMS scope of practice and clinical standards for the Diagnostic Medical Sonographer
Meet the criteria to apply for certification with the American Registry of Radiologic Technologist (ARRT) and/or the American Registry of Diagnostic Medical Sonographer (ARDMS)
Be didactically prepared to apply to the American Registry of Diagnostic Medical Sonographers for candidacy to the physics, abdomen/small parts OB/GYN, and vascular examinations.

Please click here for important information regarding: Becoming Connecticut State Community College

Pre-Requisites Prior to Admission into the Program:

(All must be completed with a grade of C or better)

BIO* 211 - Anatomy and Physiology I **4 credits**
BIO* 212 - Anatomy and Physiology II **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits**
PHY* 111 - Physics for the Life Sciences **4 credits**

Program Requirements

Summer Session I

DMS* 100 - Principles of Sonography **4 credits**

Total Semester Credits: 4

First Semester

(Practicum at affiliates Tuesday and Thursday)

DMS* 120 - Abdomen/Small Parts Sonography I **3 credits**
DMS* 121 - Obstetrics and Gynecology Sonography I **3 credits**
DMS* 122 - Clinical Practicum I **2 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**

Total Semester Credits: 11

Second Semester

(Practicum at affiliates Tuesday and Thursday)

DMS* 123 - Vascular Sonography I **3 credits**
DMS* 124 - Sonographic Physics and Instrumentation I **4 credits**
DMS* 125 - Clinical Practicum II **2 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 12

Summer Session II

Clinical Internship I - (40 hrs./week at affiliates)

DMS* 220 - Clinical Internship I **4 credits**

Total Semester Credits: 4

Third Semester

(Practicum at affiliates Monday, Wednesday, Friday)

DMS* 221 - Abdomen/Small Parts Sonography II **3 credits**
DMS* 222 - Vascular Sonography II **3 credits**
DMS* 223 - Clinical Practicum III **3 credits**

Total Semester Credits: 9

Winter Intersession

Clinical Internship I - (40 hrs./week at affiliates)

DMS* 224 - Clinical Internship II **1 credits**

Total Semester Credits: 1

Fourth Semester

(Practicum at affiliates Monday, Wednesday, Friday)

   DMS* 225 - Obstetrics and Gynecology Sonography II **3 credits**
   DMS* 226 - Advanced Sonography Seminar **3 credits**
   DMS* 227 - Clinical Practicum IV **3 credits**

Total Semester Credits: 9

Total Program Credits: 68

DRUG AND ALCOHOL RECOVERY COUNSELOR

Drug and Alcohol Recovery Counselor Certificate

This certificate program prepares students to take the certification exam used by the state of Connecticut (administered by the Connecticut Certification Board) for credentialing as an addiction counselor. This program is ideal for students who are already working in the field of addiction treatment, are receiving credentialed clinical supervision, and would like to be on a fast track for state certification. This program is also beneficial to those who hold advanced degrees (in counseling, social work, or a related field) and who would like to supplement their expertise, effectiveness, and marketability and become eligible for state of Connecticut licensure as an alcohol and drug counselor.

After completing the certificate program, students will have completed all of the substance abuse specific training required to be eligible to sit for the certification exam. Students will have concurrently achieved nearly half of the requirements for an associate degree in Drug and Alcohol Recovery Counseling. Typically, students earn the certificate on their way to completing the associate degree. For more information, contact the Program Coordinator, Professor Eileen Russo at (203) 285-2360 or e-mail at erusso@gatewayct.edu.

Program Outcomes

Upon completion of the DARC Certificate, graduates will:

Be prepared for the written Alcohol & Other Drug national examination administered by The Certification Board, Inc.

Complete the educational hours in the eight required practice dimensions of an addiction counselor in accordance with the CCB and Department of Public Health of Connecticut

Have acquired the knowledge and skolls of an alcohol and drug abuse recovery counselor

Be fluent in the practice and application of the code of ethics as outlined by the Connecticut Certification Board.

Please click her for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

DAR* 101 - Public Health Issues: Abuse & Addiction **3 credits**
DAR* 111 - Addiction Counseling I **3 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 9

Second Semester

DAR* 112 - Group Counseling: Theory & Techniques **3 credits**
DAR* 158 - Biology of Addiction **3 credits**
DAR* 213 - Addiction Counseling II **3 credits**
Restricted DAR (Elective) **3 credits**

Total Semester Credits: 12

Total Program Credits: 21

Restricted Electives

DAR* 114 - Introduction to Family Systems **3 credits**
DAR* 117 - Substance Abuse Prevention **3 credits**
DAR* 119 - Addiction Counseling in a Correctional Setting **3 credits**
DAR* 212 - Multicultural Addiction Counseling **3 credits**
DAR* 220 - Co-Occurring Disorders Counseling **3 credits**

Drug and Alcohol Recovery Counselor, AS

Mission Statement

To prepare students to enter the field of alcohol and drug recovery counseling. The program provides students with a strong general education and a solid foundation in: counseling theories and techniques, ethical practice, knowledge of multicultural aspects of working with clients, and critical thinking skills. Students learn how to provide care and treatment to those suffering from substance use disorders. The DARC program seeks to meet the workforce development needs of addiction treatment providers.

The Drug and Alcohol Recovery Counselor (DARC) program educates and trains individuals who seek State of Connecticut certification, employment, job advancement, and increased effectiveness in the field of addictions counseling.

The DARC curriculum provides a balanced program of general education and addiction-specific courses. The combination of courses will challenge students to develop into critical thinkers capable of approaching problems from a variety of viewpoints. The addiction-specific courses are designed to give students a sound foundation in the theories and the science of addiction studies with a disciplined background in: the biopsychosocial disease process of addiction, environmental and familial risk factors, evidence-based treatment models, public health issues, Recovery Model, the counselor code of ethics, and cultural competency. Throughout the DARC program, students are offered a unique combination of traditional classroom work and experiential learning and practice. Students have the opportunity to apply their learning during a two semester (DAR* 251 and DAR* 252 consecutive) internship*.

Students who complete the DARC courses will have met all current Connecticut Certification Board educational training requirements in preparation for becoming a Certified Addiction Counselor and for State of Connecticut credentialing as a drug and alcohol counselor. In addition to the DARC course work, the state of Connecticut requires students to accrue work hours in the field of addiction counseling in order to be eligible to sit for the certification exam (administered by the Connecticut Certification Board).

Acceptance into the Internship (DAR* 251 and DAR* 252) portion of the program is selective and requires a formal application, interview and screening process that is separate from general admission to the College. Completion of DAR* 101, DAR* 111, DAR* 158 and DAR* 212 is required before applying to the Internship. The program courses, DAR* 101, DAR* 111, DAR* 112, DAR* 114, DAR* 117, DAR* 119, DAR* 158, DAR* 212 and DAR* 220 are available to any student who wishes to enroll; however, students are urged to seek guidance from the program coordinator.

*During the Internship year, students are required to carry malpractice liability insurance (the average yearly cost is $15). Students will be billed separately for this coverage and will be asked to pay the premium at the time of registration.

Professional practice for addiction counselors is based on eight practice dimensions, each of which is necessary for effective performance of the counseling role.

A counselor's success in carrying out a practice dimension depends on his or her ability to attain the competencies underlying that component. Each competency, in turn, depends on its own set of knowledge, skills, and attitudes. For an addiction counselor to be truly effective, he or she should possess the knowledge, skills, and attitudes associated with each competency that are consistent with the counselor's training and professional responsibilities. (Center for Substance Abuse Treatment. Addiction Counseling Competencies: The Knowledge, Skills, and Attitudes of Professional Practice. Technical Assistance Publication (TAP) Series 21. HHS Publication No. (SMA) 15-4171. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2006)

The eight practice dimensions are as follows:

Clinical Evaluation
    Screening
     Assessment
Treatment Planning

Referral
Service Coordination
Implementing the Treatment Plan
Consulting
Continuing Assessment and Treatment
Counseling
Individual counseling
Group counseling
Counseling Families, Couples, and Significant Others
Client, Family, and Community Education
Documentation
Professional and Ethical Responsibilities

For more information, contact the Program Coordinator, Eileen Russo, at (203) 285-2360 or e-mail erusso@gatewayct.edu.

Program Outcomes

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

Perform the skills of a recovery counselor in a cross-cultural setting as defined by the Eight Practice Dimensions of an Addiction Counselor
Practice and apply the code of ethics
Successfully complete the certification process demonstrating competency in the theoretical sciences of the recovery field
Apply principles of literacy and information technology to enhance the functions of recovery counseling.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

DAR* 101 - Public Health Issues: Abuse & Addiction **3 credits**
DAR* 111 - Addiction Counseling I **3 credits**
ENG* 101 - Composition **3 credits**
PHL* 111 - Ethics **3 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 15

Second Semester

DAR* 112 - Group Counseling: Theory & Techniques **3 credits**
DAR* 158 - Biology of Addiction **3 credits**
DAR* 213 - Addiction Counseling II **3 credits**
PSY* 245 - Abnormal Psychology **3 credits**
COM* 173 - Public Speaking **3 credits**

Total Semester Credits: 15

Third Semester

DAR* 251 - Counseling Internship I **6 credits**

Restricted (Elective) - DARC (see below) **3 Credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** or higher

Total Semester Credits: 15

Fourth Semester

DAR* 252 - Counseling Internship II **6 credits**
BIO* 110 - Principles of the Human Body **3 credits**
Choose one course in AD, HK, or SR (Gen Ed) **3-4 Credits**
Open Elective (seek advising from Program Coordinator for the most appropriate options) **3 credits**

Total Semester Credits: 15-16

Total Program Credits: 60-61

Admission to the Counseling Internship (DAR* 251 & DAR* 252) is selective, based on a rigorous admission process after successful completion of the DARC core courses with a "C" or better.

Restricted Electives

DAR* 114 - Introduction to Family Systems **3 credits**
DAR* 117 - Substance Abuse Prevention **3 credits**
DAR* 119 - Addiction Counseling in a Correctional Setting **3 credits**
DAR* 212 - Multicultural Addiction Counseling **3 credits**
DAR* 220 - Co-Occurring Disorders Counseling **3 credits**

EARLY CHILDHOOD - SPECIAL EDUCATION

Early Childhood Special Education Certificate

The Early Childhood Special Education Certificate program provides students with both theoretical knowledge and practical skills. Graduates are able to screen and identify the unique needs of preschoolers and their families and define early intervention services needed to address those unique needs. The graduate can describe and plan a flexible, interactive curriculum for preschoolers with disabilities in the regular classroom. This program familiarizes students with laws affecting special education. For more information, call the Early Childhood Special Education Program Coordinator, Professor Carmelita Valencia-Daye at (203) 285-2172 or e-mail at CValencia-Daye@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Requirements

First Semester

ECS* 107 - Introduction to Exceptional Children I **3 credits**
ECS* 112 - Introduction to Early Childhood Special Education **3 credits**
PSY* 122 - Child Growth and Development **3 credits**
ENG* 101 - Composition **3 credits**

Total Semester Credits: 12

Second Semester

ECS* 207 - Introduction to Exceptional Children: Seminar II **3 credits**
ECS* 230 - Student Teaching Special Education **6 credits**
PSY* 258 - Behavior Modification **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Total Program Credits: 27

Restricted Electives

(choose one from the following):

ECE* 103 - Creative Experiences/Children **3 credits**
ECE* 106 - Music and Movement for Children **3 credits**
ECE* 109 - Science and Math for Children **3 credits**
ECE* 206 - Administration and Supervision of Early Childhood Programs **3 credits**
ECS* 225 - Diagnostic Assessment of Children with Special Needs
ENG* 114 - Children's Literature **3 credits**
SOC* 111 - Child, Family, School and Community **3 credits** or
SPA* 101 - Elementary Spanish I **3 credits**

Early Childhood Special Education, AS

The Early Childhood Special Education Associate in Science degree program provides students with both theoretical knowledge and practical skills. Graduates should be able to screen and identify the unique needs of preschoolers and their families and define early intervention services needed to address those unique needs. The graduate will be able to describe and plan a flexible, interactive curriculum for preschoolers with disabilities in the regular classroom. This program will familiarizes students with major laws affecting special education.

The Early Learning Center at the Downtown Campus, along with preschool programs in the Greater New Haven area, offer laboratory facilities to students. One associate degree and one certificate option is available in the Early Childhood Special Education program. Courses taken as part of either program can be transferred to any of Connecticut's participating baccalaureate institutions that offer Early Childhood Education Teacher Certification programs: University of Connecticut's Human Development and Family Relations major and Charter Oak State College's Child Studies concentration. The terms for credit award and student eligibility vary. However, in general, students must meet the following transfer eligibility requirements:

> Be a graduate from a validated associate degree program in Early Childhood Education in Connecticut
> Meet specific admission requirements of the college or university into which transfer is being sought
> Complete all associate degree Early Childhood Special Education courses with a grade of "C" or better and meet the college's or university's requirements for transfer of general education
> Complete all associate degree Early Childhood Education student teaching with a grade of "C" or better in a center accredited by the National Association for the Education of Young Children (NAEYC)
> Furthermore, if a student wishes to transfer into an Early Childhood Education Teacher Certification program, it is strongly recommended that, prior to transfer, he or she demonstrate the following state certification requirements:
> A score of 1000 or better on the SAT, successful completion of the Praxis I examination, or have initiated the process of taking the Praxis I examination
> A 2.7 grade point average if seeking admission to a teacher certification education program in Connecticut

For more information, call the Early Childhood Special Education Program Coordinator, Carmelita Valencia-Daye at (203) 285-2172 or e-mail at (CValencia-Daye@gatewayct.edu). For scholarship information, contact CT Charts-a-Course at (800) 832-7784.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

> Know the historical and philosophical bases for ECSE
> Create his or her own philosophy of ECSE and maintain an awareness and sensitiveness to culturally diverse populations
> Identify and explain the laws that mandate services for children with special needs and the eligibility requirements for families of children with special needs
> Identify and explain the following planning plans used in ECSE: the Individualized Family Services Plan (IFSP) and the Individualized Education Plan (IEP)
> Recognize such aspects of exceptionalities as: attention deficit hyperactivity disorder (ADHD), communication disorders, mental retardation, emotional and behavioral disorders, learning disabilities, visual and hearing impairments, physical disabilities, and giftedness
> Understand the rationale and strategies for involving parents and families in the screening, assessment, education programming, and placement of their child
> Participate in student teaching to apply theoretical teaching techniques; plan and write effective curricula, lesson plans, and IEPs that include goals, objectives, and strategies to effect change in children with special needs and plan curricula that are authentic and culturally appropriate.
> Understand the importance of working cooperatively with other staff members, professionals, and parents to form an effective team

Suggested Course Sequence

First Semester

ECS* 107 - Introduction to Exceptional Children I **3 credits**
ECS* 112 - Introduction to Early Childhood Special Education **3 credits**
ENG* 101 - Composition **3 credits**
PSY* 111 - General Psychology I **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Second Semester

BIO* 105 - Introduction to Biology **4 credits**
    or
BIO* 110 - Principles of the Human Body **3 credits**
ECS* 207 - Introduction to Exceptional Children: Seminar II **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
MAT* 137 - Intermediate Algebra **3 credits** or higher
PSY* 122 - Child Growth and Development **3 credits**

Total Semester Credits: 15-16

Third Semester

ECE* 231 - Early Language and Literacy Development **3 credits**
MAT* 143 - Mathematics for Elementary Education: Algebra/Number Systems I **3 credits**
PSY* 105 - Group Dynamics **3 credits**
PSY* 258 - Behavior Modification **3 credits**
Choose one course in AD, HK, OC, SR (Gen Ed) **3 credits**

Total Semester Credits: 15

Fourth Semester

ECS* 230 - Student Teaching Special Education **6 credits**
PHL* 101 - Introduction to Philosophy **3 credits**
    or
PHL* 111 - Ethics **3 credits**
Restricted Elective (see below) **6 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

Restricted Electives

ECE* 103 - Creative Experiences/Children **3 credits**
ECE* 109 - Science and Math for Children **3 credits**
ECS* 121 - First Aid, CPR, and Medication Administration **1 credits**
ECE* 141 - Infant and Toddler Growth and Development **3 credits**
ECE* 142 - Developmental Interventions for Infants and Toddlers at Risk **3 credits**
ECE* 206 - Administration and Supervision of Early Childhood Programs **3 credits**
ECS* 123 - Introduction to Family Support and Respite Care **4 credits**
ENG* 114 - Children's Literature **3 credits**
PSY* 245 - Abnormal Psychology **3 credits**
SOC* 111 - Child, Family, School and Community **3 credits**

Family Support and Respite Care Certificate

The Early Childhood Special Education Family Support and Respite Care Certificate will provide students in ECSE and health care providers with another option in Early Childhood Special Education.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Use theoretical knowledge and practical skills to work effectively with and provide respite care for families on a planned or emergency basis, either at home or in the community.

Program Requirements

ECS* 121 - First Aid, CPR, and Medication Administration **1 credits**
ECS* 123 - Introduction to Family Support and Respite Care **4 credits**
ECS* 107 - Introduction to Exceptional Children I **3 credits**
PSY* 105 - Group Dynamics **3 credits**

Total Program Credits: 11

Infant and Toddler Development Certificate

The Early Childhood Special Education Infant and Toddler Development certificate program prepares students to care for and teach infants and toddlers from birth to age three.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Use theoretical knowledge and practical skills to work effectively with infants and toddlers in preschool settings or institutions in the Greater New Haven community.

Program Requirements

ECS* 107 - Introduction to Exceptional Children I **3 credits**
ECE* 141 - Infant and Toddler Growth and Development **3 credits**
ECE* 142 - Developmental Interventions for Infants and Toddlers at Risk **3 credits**
ECS* 230 - Student Teaching Special Education **6 credits**
Electives (See Below) **6-8 credits**

Total Program Credits: 27-29

Electives

ECS* 121 - First Aid, CPR, and Medication Administration **1 credits**
ECS* 123 - Introduction to Family Support and Respite Care **4 credits**
ECE* 180 - CDA Credential Preparation **3 credits**
ECS* 112 - Introduction to Early Childhood Special Education **3 credits**
ECS* 113 - Creative Art/Play for Exceptional Children **3 credits**
ECS* 207 - Introduction to Exceptional Children: Seminar II **3 credits**
ENG* 114 - Children's Literature **3 credits**
PSY* 105 - Group Dynamics **3 credits**
PSY* 122 - Child Growth and Development **3 credits**
PSY* 258 - Behavior Modification **3 credits**

EARLY CHILDHOOD EDUCATION

CSCU Pathway Transfer Degree: Early Childhood Teacher Credential Studies-ECTC Level A, A.A.

With this degree, you will be able to transfer to the following majors:

At Eastern Connecticut State University	Bachelor of General Studies with a Concentration in Early Childhood Education - ECTC Level B
At Southern Connecticut State University	Bachelor of Arts in Interdisciplinary Studies with a Concentration in Early Childhood Pedagogy a
At Charter Oak State College	Bachelor of General Studies with a Concentration in Child Studies - ECTC Track - Level B

Important Note: Earning the Early Childhood Teacher Credential (ECTC) is not equivalent to earning public school teaching certification and does not qualify you to work in a role where a State Teacher Certification Endorsement is required. Completion of the ECTC validates that you meet the requirements for the role of the teacher in early childhood programs accepting state funds.

Here is the recommended course of study for the Early Childhood Teacher Credential Studies Transfer Degree. 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.

Please contact a campus advisor for more information:

Professor Carmelita Valencia-Daye: CValenciadaye@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ECE* 101 - Introduction to Early Childhood Education **3 credits**
ENG* 101 - Composition **3 credits**
PSY* 111 - General Psychology I **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Oral Communications **3 credits**

Total Semester Credits: 15

Second Semester

ECS* 107 - Introduction to Exceptional Children I **3 credits**
PSY* 122 - Child Growth and Development **3 credits** (must be taken before ECE 210)
Choose one ECE Course **3 credits**
Choose one course in Quantitative Reasoning **3 credits**
Choose one course in Written Communication II **3 credits**

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester <u>or</u> the semester before you plan to graduate. FAFSA becomes available October 1.

> ECE* 210 - Observations, Participation and Seminar **3 credits**
> ECE* 231 - Early Language and Literacy Development **3 credits**
> Choose one ECE course **3 credits**
> Choose one course in Historical Knowledge and Understanding **3 credits**
> Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Total Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

> ECE* 295 - Student Teaching **6 credits**
> Choose one ECE course **3 credits**
> Choose one course in Critical Analysis/Logical Thinking **3 credits**
> Choose one course in Scientific Reasoning **3-4 credits**

Total Semester Credits: 15-16

Total Program Credits: 60-61

Early Childhood Education Career Path, AS

The Early Childhood Education Program has earned Accreditation from the National Association for the Education of Young Children (NAEYC). An Associate degree and three certificate options are available in the Early Childhood Education program. The Early Childhood Education associate degree program is validated under the Connecticut Early Childhood Education Articulation Plan. Graduates of the associate degree program are eligible for admission as articulation students to any of the state's participating baccalaureate institutions which offer Early Childhood Education Teacher Certification programs; in the University of Connecticut's Human Development and Family Relations major; or in Charter Oak State College's child studies concentration. In addition, any graduate of Gateway Community College Early Childhood Education Program from 2008 on is eligible to apply for the Early Childhood Teacher Credential (ECTC). The ECE program at GCC is an approved degree program for both Infant/Toddler and Preschool endorsements.

The terms for credit award and student eligibility vary under each option. However, in general, students must meet the following eligibility requirements:

Be a graduate from a validated associate degree program in Early Childhood Education in Connecticut

Meet specific admissions requirements of the college or university into which transfer is being sought

Complete all Early Childhood Education associate degree courses with a grade of "C" or better and meet the college's or university's requirements for transfer of general education

Complete all Early Childhood Education associate degree student teaching with a grade of "C" or better in a center accredited by the National Association for the Education of Young Children (NAEYC)

Furthermore, if a student is seeking to transfer into an Early Childhood Education Teacher Certification program, it is strongly recommended that, prior to transfer, she or he possess the following state certification requirements:

A score of 1,100 or better on the SAT (test date on or after April 1, 1995), or the passing of Praxis Core Academic Skills Test

A 2.7 grade point average if seeking admission to a teacher certification education program in Connecticut.

For more information, email the Early Childhood Education Program Coordinator, Professor Carmelita Valencia-Daye at CValencia-Daye@gatewayct.edu. For scholarship information, contact the Connecticut Office of Early Childhood/CT Charts a Course website http://ctcharts.org or call 1 800 832-7784.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

"The 2010 National Association for the Education of Young Children (NAEYC) Standards for Initial and Advanced Early Childhood Professional Preparation Programs describe what early childhood professionals are expected to know and do". These Standards provide the basis for the Early Childhood Education Program at. Gateway Community College. Upon successful completion of the program requirements, students are prepared to:

Standard 1: Promoting Child Development and Learning

Students prepared in early childhood degree programs are grounded in a child development knowledge base. They use their understanding of a) young children's characteristics and needs, and b) multiple interacting influences on children's development and learning, to c) create environments that are healthy, respectful, supportive, and challenging for each child.

Standard 2: Building Family and Community Relationships

Students prepared in early childhood degree programs understand that successful early childhood education depends upon partnerships with children's families and communities. They a) know about, understand, and value the importance and complex characteristics of children's families and communities. They use this understanding to b) create respectful, reciprocal relationships that support and empower families, and c) to involve all families in their children's development and learning.

Standard 3: Observing, Documenting, and Assessing to Support Young Children and Families

Students prepared in early childhood degree programs understand that child observation, documentation, and other forms of assessment are central to the practice of all early childhood professionals. They a) know about and understand the goals, benefits, and uses of assessment. They b) know about and use systematic observations, documentation, and other effective assessment strategies c) in a responsible way, d) in partnership with families and other professionals, to positively influence the development of every child.

Standard 4: Using Developmentally Effective Approaches

Students prepared in early childhood degree programs understand that teaching and learning with young children is a complex enterprise, and its details vary depending on children's ages, characteristics, and the settings within which teaching and learning occur. They a) understand and use positive relationships and supportive interactions as the foundation for their work with young children and families. Candidates b, c) know, understand, and use a wide array of developmentally appropriate approaches, instructional strategies, and tools to connect with children and families and d) positively influence each child's development and learning.

Standard 5: Using Content Knowledge to Build Meaningful Curriculum

Students prepared in early childhood degree programs a) use their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for each and every young child. Candidates understand the importance of developmental domains and academic (or content) disciplines in early childhood curriculum. They b) know the essential concepts, inquiry tools, and structure of content areas, including academic subjects, and can identify resources to deepen their understanding. Candidates c) use their own knowledge and other resources to design, implement, and evaluate meaningful, challenging curriculum that promotes comprehensive developmental and learning outcomes for every young child.

Standard 6: Becoming a Professional

Students prepared in early childhood degree programs a) identify and conduct themselves as members of the early childhood profession. They b) know and use ethical guidelines and other professional standards related to early childhood practice. They c) are continuous, collaborative learners who demonstrate knowledgeable, reflective and critical perspectives on their work, making informed decisions that d) integrate knowledge from a variety of sources. They are e) informed advocates for sound educational practices and policies.

Standard 7: Early Childhood Field Experiences

Students have field experiences and clinical practice in a) at least two of the three early childhood age groups (birth – age 3, 3 through 5, 5 through 8 years) and in b) the variety of settings that offer early education (early school grades, child care centers and homes, Head Start programs).

In addition, "the Supportive Skills support associate degree students' ability to gain competence in relation to the core standards. With these skills, students are better able to make use of learning opportunities provided by the program and progress in a career as an early childhood professional."

SUPPORTIVE SKILL 1: Self-assessment and self-advocacy
SUPPORTIVE SKILL 2: Mastering and applying foundational concepts from general education
SUPPORTIVE SKILL 3: Written and verbal skills
SUPPORTIVE SKILL 4: Making connections between prior knowledge/ experience and new learning
SUPPORTIVE SKILL 5: Identifying and using professional resources

Conceptual Framework of the Early Childhood Education Program at Gateway Community College

Vision Statement

The vision of the Early Childhood Program at Gateway Community College is to prepare well qualified teachers who understand how children learn; can plan and implement developmentally and individually appropriate learning experiences that are aligned to standards and are based on knowledge of individual children (typical and atypical) from diverse cultural backgrounds, and can plan within and across disciplines, taking into account the family, the community and curricular goals and objectives.

Mission Statement

The mission of the Early Childhood Education Program is to provide a comprehensive curriculum that enables students to seek employment in the field of Early Education and Care, working with children from diverse backgrounds; to transfer to a baccalaureate program to continue their training in Early Childhood Education; or to increase their skills in working with young children.

Program Philosophy

The early childhood education program at Gateway Community College adopts a philosophy that includes a perspective about how learning occurs and how the teaching act influences learning. The program's philosophy stresses the importance of preparing dedicated and skilled professionals to work in the learning community knowing diverse theories not limited to the views of Piaget, Dewey, Vygotsky, Erickson and Montessori.

The program recognizes the responsibility of the teacher to deal with each student as an individual, value diversity, and recognize that the student's behavior is a direct reflection of his or her life experiences.

In keeping with the Institution's and program's mission, the Early Childhood Education program holds the following principles and strives to foster them in its students:

When active engagement accompanies learning opportunities, learning is at its best.
When content is connected to the real world, learning is facilitated.
Critical thinking, reflection, and problem solving are prized and encouraged.
Multiple measures of assessment provide a well-rounded insight of the learner's construction of knowledge.
Knowing and understanding the families of children and the communities in which they 1ive is key to enhancing a child's development and learning and paramount to involving families and communities.
Cultural diversity of the family and the developmental diversity of the child must be understood and appreciated.
Utilization of multiple learning modalities addresses a variety of learning styles.

The Early Childhood Program offers a Child Development Associate Preparation Certificate, a one-year Teacher Assistant Certificate, an Administration and Leadership Certificate and an Associate Degree with an option of Continued Studies (transfer) or Early Childhood (career).

Preparing adult learners to work in diverse and multicultural setting and have the skills to implement developmentally appropriate teaching practices is a principal component of the program. The program requires a sequence of observation and teaching practices to prepare students who understand child development and can effectively work with children.

In keeping with the College's mission the early childhood courses and programs are widely accessible to students, many of whom are working full-time, via a variety of delivery systems. Flexibility of course offerings and responding to the needs of the early childhood workforce are primary. The program continually seeks opportunities to provide students with tuition free courses by responding to alternative funding opportunities and forming alliances with local and statewide agencies.

Course delivery formats include (1) traditional classroom format, (2) on-line courses (3) accelerated courses in one week to five week formats, (4) an accelerated degree such as a plan developed to offer the complete degree on a part-time basis over a 36 month period and the fast track offering of certificates that students could complete within 11 weeks. The Child Development Preparation Certificate is offered on-line. To enhance student's success in course work, Learning Communities, collaboration between the Early Childhood faculty member and the developmental Reading and English, faculty member are being developed.

Professional Commitments

The Early Childhood Program has a strong commitment to diversity and reflects as much as possible the culture and language of the students and community that it serves. Additionally, faculty members have formed collaboration with the Learning Disabilities Specialist in order to incorporate students with special needs into the program. Frequent offering of courses at the worksite enhance accessibility for students. Responding to the needs of the workforce is paramount.

Community Connections

Community responsiveness is a key component of the program. Outreach into the community is evidenced by the creation of the Early Learning Center and the Accreditation Facilitation Project that assists centers with NAEYC Accreditation and expands the availability of high quality field placements for observation and student teaching. The Early Learning Center, a 60 child NAEYC Accredited community early care and education facility, is an on site laboratory school that serves as a model of best practices and is a field placement site for observation students and student teachers.

Suggested Course Sequence

First Semester

ECE* 101 - Introduction to Early Childhood Education **3 credits**
ENG* 101 - Composition **3 credits**
PSY* 111 - General Psychology I **3 credits**
PSY* 122 - Child Growth and Development **3 credits**
Choose one course in AD, HK, OC, or SR (Gen Ed) **3 credits**

Total Semester Credits: 15

Second Semester

ECE* 231 - Early Language and Literacy Development **3 credits**
ECS* 107 - Introduction to Exceptional Children I **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)
ECE Restricted Elective **3 credits** (see below)

Total Semester Credits: 15

Third Semester

ECE* 210 - Observations, Participation and Seminar **3 credits**
PHL* 111 - Ethics **3 credits**

SOC* 111 - Child, Family, School and Community **3 credits**
Choose one course in BIO*, EAS*, EVS* or PHY* (Gen Ed - SK: Scientific Knowledge & Understanding) **3 credits**
ECE Restricted Elective **3 credits** (see below)

Total Semester Credits: 15

Fourth Semester

ECE* 176 - Health, Safety & Nutrition **3 credits**
ECE* 295 - Student Teaching **6 credits**
ECE Restricted Elective **6 credits** (see below)

Total Semester Credits: 15

Total Program Credits: 60

ECE Restricted Electives:

ECE* 103 - Creative Experiences/Children **3 credits**
ECE* 106 - Music and Movement for Children **3 credits**
ECE* 109 - Science and Math for Children **3 credits**
ECE* 110 - Using Computers in ECE **3 credits**
ECE* 141 - Infant and Toddler Growth and Development **3 credits** (required for ECTC Infant/Toddler Endorsement)
ECE* 142 - Developmental Interventions for Infants and Toddlers at Risk **3 credits**
ECE* 180 - CDA Credential Preparation **3 credits**
ECE* 181 - CDA Credential Preparation II **3 credits**
ECE* 206 - Administration and Supervision of Early Childhood Programs **3 credits**
ECE* 212 - Administrative Leadership in Early Childhood Programs **3 credits**
ECE* 213 - Finance for Early Childhood Program **3 credits**
ECE* 241 - Methods and Techniques for Infant/Toddler **3 credits**
ECS* 112 - Introduction to Early Childhood Special Education **3 credits**
ENG* 114 - Children's Literature **3 credits**
PSY* 214 - Advanced Child Growth and Development **3 credits**

Early Childhood Education: Administration and Leadership Certificate

Provides specialized college-level course work in administration, leadership, and management to parallel the competency and training requirements needed to obtain the Connecticut Director's Credential (CDC) which is issued through Charter Oak State College to applicants who have successfully met requirements necessary to obtain the credential at a specific level.

Program Outcomes

Plan and implement developmentally appropriate care and education programs for children and families

Develop and maintain an effective organization and physical facility

Plan and implement effective administrative systems to carry out program goals, mission, and objectives; and have legal knowledge necessary for effective management

Effectively administer a program or personnel management and staff development

Foster positive community relations and influence child care policy that affects the program

Apply financial management tools.

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Program Requirements

BMG* 220 - Human Resources Management **3 credits**
ECE* 206 - Administration and Supervision of Early Childhood Programs **3 credits**
ECE* 212 - Administrative Leadership in Early Childhood Programs **3 credits**
ECE* 213 - Finance for Early Childhood Program **3 credits**
SOC* 111 - Child, Family, School and Community **3 credits**

Total Program Credits: 15

Early Childhood Education: Child Development Associate Credential Certificate

The Child Development Associate Credential (CDA) is a national credentialing program that focuses on the skills of early care and education professionals; it is a performance-based assessment of childcare staff, home visitor, and family child care provider. The Child Development Associate Credential is designed for individuals who wish to obtain a Child Development Associate (CDA) through the Council for Early Childhood Professional Recognition Credentialing Process.

Gateway Community College offers the courses that will provide students with the required 120 clock hours of education for the credentialing process. Credits earned as part of this program can be applied to the Early Childhood Education Teacher Assistant certificate and degree programs.

Program Outcomes

Upon successful completion of the certificate program requirements, students will be eligible to apply to the Council for Early Childhood Professional Recognition who awards the CDA Credential. With a CDA Credential, students will be more likely to find employment in an accredited and/or state funded child care center. However, in addition to the courses, there are other requirements that need to be fulfilled in order to obtain a CDA Credential.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Requirements

PSY* 122 - Child Growth and Development **3 credits**
ECE* 101 - Introduction to Early Childhood Education **3 credits**
ECE* 180 - CDA Credential Preparation **3 credits**

Total Program Credits: 9

For more information, email the Early Childhood Education Program Coordinator, Carmelita Valencia-Daye at cvalencia-Daye@gatewayct.edu. For scholarship information, contact the Connecticut Office of Early Childhood/Connecticut Charts-A-Course, visit the website at http://ctcharts.org or call (800) 832-7784.

The New Credentialing process for the Child Development Associate (CDA) Credential as of June 2013 is as follows:

Step 1: Any time before application:

Minimum of high school diploma/GED or enrolled in a high school career and technical education program.
120 hours of education in 8 subject areas
Step 2: Within three years before application

480 hours experience
Step 3: Within six months before application

Requirements:

Professional Portfolio (PP) completed by the Candidate
Family questionnaires (FQ) gathered by the Candidate
Step 4: Application

Candidate sends to the Council: Application and Fee

Candidate receives approval that application is complete and fee has been processed

Step 5: Within 6 months of Council approval and completed application

Verification Visit conducted by CDA Professional Development specialist
Candidate takes CDA Exam at a local PearsonVUE testing center

Step 6: After Verification Visit and CDA Exam

Professional Development Specialist sends Verification Visit scores to the Council online
PearsonVUE sends exam scores to the Council online

Council awards or denies Credential

For more information, visit http://www.cdacouncil.org

Early Childhood Education: Continued Studies Transfer Path, AS

Early Childhood Education, AS

This path is designed for students who plan to transfer to a four year institution for further study towards the ECE Teacher Certification. It also prepares you with the appropriate academics and practicum necessary for a career in Early Childhood. Since the amount of transfer credit varies from one institution to another, students are advised to consult the catalog from the four year colleges under consideration.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

"The 2010 National Association for the Education of Young Children (NAEYC) Standards for Initial and Advanced Early Childhood Professional Preparation Programs describe what early childhood professionals are expected to know and do". These Standards provide the basis for the Early Childhood Education Program at. Gateway Community College. Upon successful completion of the program requirements, students are prepared to:

Standard 1: Promoting Child Development and Learning

Students prepared in early childhood degree programs are grounded in a child development knowledge base. They use their understanding of a) young children's characteristics and needs, and b) multiple interacting influences on children's development and learning, to c) create environments that are healthy, respectful, supportive, and challenging for each child.

Standard 2: Building Family and Community Relationships

Students prepared in early childhood degree programs understand that successful early childhood education depends upon partnerships with children's families and communities. They a) know about, understand, and value the importance and complex characteristics of children's families and communities. They use this understanding to b) create respectful, reciprocal relationships that support and empower families, and c) to involve all families in their children's development and learning.

Standard 3: Observing, Documenting, and Assessing to Support Young Children and Families

Students prepared in early childhood degree programs understand that child observation, documentation, and other forms of assessment are central to the practice of all early childhood professionals. They a) know about and understand the goals, benefits, and uses of assessment. They b) know about and use systematic observations, documentation, and other effective assessment strategies c) in a responsible way, d) in partnership with families and other professionals, to positively influence the development of every child.

Standard 4: Using Developmentally Effective Approaches

Students prepared in early childhood degree programs understand that teaching and learning with young children is a complex enterprise, and its details vary depending on children's ages, characteristics, and the settings within which teaching and learning occur. They a) understand and use positive relationships and supportive interactions as the foundation for their work with young children and families. Candidates b, c) know, understand, and use a wide array of developmentally appropriate approaches, instructional strategies, and tools to connect with children and families and d) positively influence each child's development and learning.

Standard 5: Using Content Knowledge to Build Meaningful Curriculum

Students prepared in early childhood degree programs a) use their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for each and every young child. Candidates understand the importance of developmental domains and academic (or content) disciplines in early childhood curriculum. They b) know the essential concepts, inquiry tools, and structure of content areas, including academic subjects, and can identify resources to deepen

their understanding. Candidates c) use their own knowledge and other resources to design, implement, and evaluate meaningful, challenging curriculum that promotes comprehensive developmental and learning outcomes for every young child.

Standard 6: Becoming a Professional

Students prepared in early childhood degree programs a) identify and conduct themselves as members of the early childhood profession. They b) know and use ethical guidelines and other professional standards related to early childhood practice. They c) are continuous, collaborative learners who demonstrate knowledgeable, reflective and critical perspectives on their work, making informed decisions that d) integrate knowledge from a variety of sources. They are e) informed advocates for sound educational practices and policies.

Standard 7: Early Childhood Field Experiences

Students have field experiences and clinical practice in a) at least two of the three early childhood age groups (birth – age 3, 3 through 5, 5 through 8 years) and in b) the variety of settings that offer early education (early school grades, child care centers and homes, Head Start programs).

In addition, "the Supportive Skills support associate degree students' ability to gain competence in relation to the core standards. With these skills, students are better able to make use of learning opportunities provided by the program and progress in a career as an early childhood professional."

SUPPORTIVE SKILL 1: Self-assessment and self-advocacy
SUPPORTIVE SKILL 2: Mastering and applying foundational concepts from general education
SUPPORTIVE SKILL 3: Written and verbal skills
SUPPORTIVE SKILL 4: Making connections between prior knowledge/ experience and new learning
SUPPORTIVE SKILL 5: Identifying and using professional resources

Suggested Course Sequence

First Semester

ENG* 101 - Composition **3 credits**
PSY* 111 - General Psychology I **3 credits**
PSY* 122 - Child Growth and Development **3 credits**
ECE* 101 - Introduction to Early Childhood Education **3 credits**
Choose one course in AD, HK, OC, or SR (Gen Ed) **3 credits**

Total Semester Credits: 15

Second Semester

ECE* 231 - Early Language and Literacy Development **3 credits**
Open (Elective) **3 credits**
ECS* 107 - Introduction to Exceptional Children I **3 credits**
ENG* 102 - Literature and Composition **3 credits** or
ENG* 200 - Advanced Composition **3 credits**

MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 15

Third Semester

PHL* 111 - Ethics **3 credits**
Choose one course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge and Understanding) **3-4 credits**
HIS* 201 - U.S. History I **3 credits**
ECE* 210 - Observations, Participation and Seminar **3 credits**
SOC* 111 - Child, Family, School and Community **3 credits**

Total Semester Credits: 15-16

Fourth Semester

ECE* 295 - Student Teaching **6 credits**
Open (Electives) **3 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

Students are advised to consult the catalog of the transferring institution for appropriate choices.

Teacher Assistant Certificate

This program prepares students to be assistant teachers and teacher aides in the early education and care profession. The program also provides training for individuals already employed in a preschool situation who desire to improve their knowledge and competency in working with children.

Students who complete this program are qualified to assist teachers in all aspects of professional childcare and to guide and supervise individual and group activities. Graduates may also transfer into the Early Childhood Education program leading to the Associate in Science degree. For more information, e-mail the Program Coordinator, Carmelita Valencia-Daye, at CValencia-Daye@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ECE* 101 - Introduction to Early Childhood Education **3 credits**
ECS* 107 - Introduction to Exceptional Children I **3 credits**
ENG* 101 - Composition **3 credits**
PSY* 122 - Child Growth and Development **3 credits**
ECE Restricted Elective **3 credits**

Total Semester Credits: 15

Second Semester

ECE* 210 - Observations, Participation and Seminar **3 credits**
ECE* 231 - Early Language and Literacy Development **3 credits**
SOC* 111 - Child, Family, School and Community **3 credits**
ECE Restricted electives (see below) **6 credits**

Total Semester Credits: 15

Total Program Credits: 30

ECE Restricted Electives:

ECE* 103 - Creative Experiences/Children **3 credits**
ECE* 106 - Music and Movement for Children **3 credits**
ECE* 109 - Science and Math for Children **3 credits**
ECE* 110 - Using Computers in ECE **3 credits**
ECE* 141 - Infant and Toddler Growth and Development **3 credits**
ECE* 176 - Health, Safety & Nutrition **3 credits**
ECE* 180 - CDA Credential Preparation **3 credits**
ECE* 181 - CDA Credential Preparation II **3 credits**
ECE* 205 - Creative Activities and Media **3 credits**
ECE* 206 - Administration and Supervision of Early Childhood Programs **3 credits**

ECE* 241 - Methods and Techniques for Infant/Toddler **3 credits**
ECS* 112 - Introduction to Early Childhood Special Education **3 credits**
ENG* 114 - Children's Literature **3 credits**
PSY* 214 - Advanced Child Growth and Development **3 credits**

ELECTRICAL ENGINEERING TECHNOLOGY

Electrical Engineering Technology, AS

The Electrical Engineering Technology program focuses on a variety of electrical and electronic devices, circuits, signal, systems, and related applications that are integral parts of our modern, high-tech society. Students in this program receive theoretical and practical instruction to analyze, construct, test, and troubleshoot a wide variety of electrical, electronic, digital, microprocessor, microcontroller, motor and communication circuits.

Exceptional instructors guide students in the proper selection, set-up, and use of instrumentation for design, testing, and measurement. Course projects utilize advanced software to model, construct, and analyze electrical and electronic devices, circuits, and systems to validate physical results. Senior-level students complete an internship program.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

- Analyze and understand the behavior of components (resistors, capacitors, inductors, diodes, etc. that comprise numerous analog and digital circuits.
- Professionally use test instrumentation to measure circuit characteristics and present system data
- Present high-quality written and oral reports of technical procedures performed in the laboratory
- Work cooperatively and productively with others in a laboratory test setting
- Utilize fundamental computer software applications alongside advanced circuit-modeling software to supplement theoretical and real-world results
- Use and read vendor catalogs, datasheets, instruction manuals, and electrical drawings

The extensive instruction and hands-on training received as part of the Electrical Engineering Technology program make each graduate a valuable and desired contributor in Connecticut's wide-ranging, high-tech industries. The EET program also provides graduates with excellent opportunities for further education and professional advancement. Gateway's Electrical Engineering Technology program maintains the highest educational and technical standards. For more information, call Christine Cherry, Program Coordinator at (203) 285-2372 or e-mail CCherry@gatewayct.edu

Suggested Course Sequence

First Semester

CET* 116 - Computer Applications for Technology **3 credits**
CAD* 124 - CAD: Electrical **1 credits**
EET* 110 - Electric Circuits I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**

Total Semester Credits: 15

Second Semester

COM* 173 - Public Speaking **3 credits**
EET* 114 - Electric Circuits II **4 credits**
EET* 136 - Electronics I **4 credits**
MAT* 254 - Calculus I **4 credits**
PHY* 121 - General Physics I **4 credits**

Total Semester Credits: 19

Third Semester

EET* 232 - Electronics II **4 credits**
EET* 252 - Digital Electronics **4 credits**
EET* 262 - Electrical Machinery and Control **4 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**

Total Semester Credits: 15

Fourth Semester

EET* 256 - Microprocessors **4 credits**
EET* 272 - Electronic Communications **4 credits**
EET* 296 - EET Internship **3 credits**
    Choose any course in Social Phenomena (SP) **3 credits**

Total Semester Credits: 14

Total Program Credits: 63

ENGINEERING TECHNOLOGY

Computer Servicing Certificate

The Computer Servicing Certificate Program is designed for students seeking entry level technical skills for the information technology (IT) industry. The Program consists of three 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 stepping stone to more advanced studies in the Computer Engineering Technology Program at Gateway Community College. For more information, contact Interim Department Chair Eric Flynn at (203) 285-2371 or e-mail eflynn@gatewayct.edu.

Program 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

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

CET* 116 - Computer Applications for Technology **3 credits**

CET* 126 - Computer Servicing **4 credits**

CET* 210 - Computer Systems Software **4 credits**

CST* 180 - Networking I **4 credits**

Total Program Credits: 15

Electronics Technician Certificate

The Electronics Technician Certificate program is designed for students who are interested in pursuing immediate employment in the electronics industry, while allowing for advanced educational opportunities. Students will acquire a solid electrical and electronics background along with industrial skills to work with hand tools and electronic instrumentation in conjunction with electrical, electronic, and digital circuits. They will also use the latest CAD software to design and simulate electronic circuits. For more information, call Christine Cherry, Program Coordinator, at (203) 285-2372 or e-mail CCherry@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Understand the operation of a variety of devices and components used in electrical, electronic and digital circuits along with their respective applications

Use Electronic CAD software to draw and simulate electrical and electronic circuit operations

Demonstrate the role and function of the necessary tools require in the construction of electrical and electronic circuits and systems

Construct electrical, electronic and digital circuits from industry-derived schematics

Operate various instrumentation devices for testing and measuring circuit parameters within electronic circuits and systems

Work cooperatively and productively with others in a laboratory setting

Suggested Course Sequence

First Semester

CET* 116 - Computer Applications for Technology **3 credits**
EET* 110 - Electric Circuits I **4 credits**
CAD* 126 - Electronics Graphics **3 credits**

Total Semester Credits: 10

Second Semester

EET* 136 - Electronics I **4 credits**
EET* 252 - Digital Electronics **4 credits**
Technical (Elective) (Consult technical advisor) **4 credits**

Total Semester Credits: 12

Total Program Credits: 22

ENGLISH

CSCU Pathway Transfer Degree: English Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	English, B.A.
At Eastern Connecticut State University	English, B.A.
At Southern Connecticut State University	English, B.A.
At Western Connecticut State University	English/Literature, B.A.
At Charter Oak State College	English, B.A.

Here is the recommended course of study for the English Studies Transfer Degree. 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.

Please contact a campus advisor for this program:

Professor Alex Boateng, ABoateng@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ENG* 101 - Composition **3 credits**
Choose one course in Quantitative Reasoning **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose **two** Unrestricted Electives* **6 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field--you must complete 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 Semester Credits: 15

Second Semester

Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **3-4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Choose two Unrestricted Electives* **6 credits**
Unrestricted Electives*

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using

unrestricted electives to meet foreign language requirements at Central, Eastern, and Western Connecticut State Universities or to begin work on completing a minor. Central Connecticut State University will require that you complete a minor by earning at least 18 credits in one area outside your major field--you must complete 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 Semester Credits: 15-16

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

    Choose one course from: ENG* 221 or ENG* 231
    Choose one from: ENG* 245, ENG* 246, or ENG* 254
    Choose one course in Scientific Knowledge and Understanding **3-4 credits**
    Choose one course in Social Phenomena **3 credits**
    Choose one General Education I: Creativity course **3 credits**

Total Semester Credits: 15-16

Fourth Semester

Depending on the course you selected in semester 3, choose one from:

    ENG* 222, ENG* 232 (if you selected ENG 221 in the 3rd semester, then you must take ENG 232; if you selected ENG 231 in the 3rd semester, then you must take ENG 222) **3 credits**
    Choose one course in Critical Analysis/Logical Thinking **3 credits**
    Choose one course in Oral Communication **3 credits**
    Choose one course in General Education II: Global Knowledge **3 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

E<small>NGLISH AS A</small> S<small>ECOND</small> L<small>ANGUAGE</small>

ESL Certificate

The ESL Certificate program prepares language minorities with overlooked qualifications to enter the workforce at a professional level as translators/bilinguals/multilinguals with expertise in many fields such as health/law/manufacturing/social work/education/banking. Students with bachelor's degrees or higher from their home country will attain skills that can qualify them for jobs in a variety of fields.

For more information, please contact Professor Claudia Bedoya-Rose, Program Coordinator at (203) 285-2163 or cbedoya-rose@gatewayct.edu.

Please click here for more information regarding: Becoming Connecticut State Community College

ESL Certificate Learning Outcomes

- Make college level appropriate choices in tone and purpose of writing in a variety of essays, letters and other written, oral, and multimodal forms of expression.
- Utilize critical reading strategies and critical thinking skills to analyze academic texts and speaking situations across the curriculum.
- Organize essays and speaking presentations with an introduction, body and conclusion, present ideas in logical order in clearly defined paragraphs, develop their ideas and support them with clear examples and sufficient details.
- Critically read, understand, and write about unabridged works of fiction and/or non-fiction.
- Improve content and written and oral presentation of ideas through revision and editing their written work for coherence,m clarity, and mechanics through several drafts that integrate feedback.
- Write a basic research essay using online sources, print media, library databases, and other resources and integrating other people's ideas through paraphrasing, quoting, and citing MLA citation standards.

Suggested Course Sequence

First Semester

ENG* 101 - Composition **3 credits**
ESL* 144 - Pronunciation IV **3 credits**
ESL* 178 - Advanced Reading and Writing **3 credits**

Total Semester Credits: 9

Second Semester

COM* 173 - Public Speaking **3 credits**
ENG* 102 - Literature and Composition **3 credits**

Total Semester Credits: 6

Total Program Credits: 15

ENVIRONMENTAL SCIENCE

Environmental Science and Toxicology Certificate

The Environmental Science and Toxicology certificate prepares students for entry-level technician positions in the fields of environmental science, toxicology, and forensic science or to continue their studies beyond the certificate to receive a two- or four-year degree.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

Upon completion of this certificate program, graduates should be able to:

Know 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
Take and analyze for pollutants and toxins air, water, and soil samples in the field and in the laboratory
Identify career options in the environmental science, toxicology, and forensic science fields
Explain the basic concepts of public health and occupational health and safety

Suggested Course Sequence

First Semester

BIO* 121 - General Biology I **4 credits**
CHE* 121 - General Chemistry I **4 credits**
EVS* 114 - Environmental Science **4 credits**
MAT* 137 - Intermediate Algebra **3 credits**

Total Semester Credits: 15

Second Semester

CHE* 122 - General Chemistry II **4 credits**
CHE* 220 - Biochemistry **4 credits**
EVS* 200 - Toxicology **3 credits**
Choose one Restricted Elective (see below) **3-4 credits**

Total Semester Credits: 14-15

Restricted Electives

BIO* 121 - General Biology I **4 credits**
BIO* 122 - General Biology II **4 credits**
BIO* 235 - Microbiology **4 credits**
CHE* 211 - Organic Chemistry I **4 credits**
CHE* 212 - Organic Chemistry II **4 credits**
EAS* 102 - Earth Science **3 credits**
EAS* 106 - Natural Disasters **3 credits**
ENV* 110 - Environmental Regulations **3 credits**

MAT* 186 - Precalculus **4 credits**
MAT* 254 - Calculus I **4 credits**
MAT* 256 - Calculus II **4 credits**
PHY* 122 - General Physics II **4 credits**
PHY* 221 - Calculus-Based Physics I **4 credits**
PHY* 222 - Calculus-Based Physics II **4 credits**
POL* 208 - American Public Policy **3 credits**
WMT* 101 - Water Treatment and Distribution **6 credits**
WMT* 102 - Special Topics in Water Treatment **3 credits**
WMT* 103 - Special Topics in Water Distribution **3 credits**
WMT* 105 - Water Utility Management **3 credits**

Total Program Credits: 29-30

Environmental Science and Toxicology, AS

The Environmental Science and Toxicology program offers students a broad educational approach to the many careers available to them in the environmental field. 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 in areas as field services, laboratory services, regulatory, fish, wildlife and natural resource management, information management systems (including Geographic Information Systems), pollution prevention, remediation, safety and health, solid and hazardous waste, water and wastewater, air pollution, and public health protection, as well as alternative and renewable energy. For additional information, please contact Department Chairperson, R.E.Tremblay at rtremblay@gatewayct.edu or Counselor John Mullane at (203) 285-2095 or e-mail at (jmullane@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Program 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

This program can be used to meet the recently upgraded requirements for wastewater treatment plant operator licensure by the CT Department of Health Services. Students interested in transferring to a four-year institution may do so through this program. Arrangements for transfer should be made before registering for the freshman year. For information, call Math/Science department chair, R.E. Tremblay at (203) 285-2185 or e-mail at (rtremblay@gatewayct.edu) or Counselor John Mullane at (203) 285-2095 or e-mail at (jmullane@gatewayct.edu).

Suggested Course Sequence

First Semester

> CET* 116 - Computer Applications for Technology **3 credits**
> ENG* 101 - Composition **3 credits**
> EVS* 114 - Environmental Science **4 credits**
> MAT* 175 - College Algebra and Trigonometry **3 credits**
> Choose one course in Social Phenomena (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credtis**

Total Semester Credits: 16-17

Second Semester

> BIO* 121 - General Biology I **4 credits**
> CHE* 121 - General Chemistry I **4 credits**
> ENG* 102 - Literature and Composition **3 credits**
>   **or**

ENG* 200 - Advanced Composition **3 credits**
EVS* 200 - Toxicology **3 credits**

Total Semester Credits: 14

Third Semester

CHE* 122 - General Chemistry II **4 credits**
COM* 173 - Public Speaking **3 credits**
MAT* 167 - Principles of Statistics **3 credits**
PHY* 121 - General Physics I **4 credits**

Total Semester Credits: 14

Fourth Semester

CHE* 220 - Biochemistry **4 credits**
EVS* 296 - Environmental Science & Toxicology Internship **3 credits**
PHL* 111 - Ethics **3 credits**
Restricted Electives (see below) **6 credits**

Total Semester Credits: 16-17

Total Program Credits: 60-61

Restricted Electives

BIO* 121 - General Biology I **4 credits**
BIO* 122 - General Biology II **4 credits**
BIO* 235 - Microbiology **4 credits**
CHE* 211 - Organic Chemistry I **4 credits**
CHE* 212 - Organic Chemistry II **4 credits**
EAS* 102 - Earth Science **3 credits**
EAS* 106 - Natural Disasters **3 credits**
EAS* 110 - The Earth Sciences **4 credits**
ENV* 110 - Environmental Regulations **3 credits**
MAT* 186 - Precalculus **4 credits**
MAT* 254 - Calculus I **4 credits**
MAT* 256 - Calculus II **4 credits**
PHY* 122 - General Physics II **4 credits**
PHY* 221 - Calculus-Based Physics I **4 credits**
PHY* 222 - Calculus-Based Physics II **4 credits**
POL* 208 - American Public Policy **3 credits**
WMT* 101 - Water Treatment and Distribution **6 credits**
WMT* 102 - Special Topics in Water Treatment **3 credits**
WMT* 103 - Special Topics in Water Distribution **3 credits**
WMT* 105 - Water Utility Management **3 credits**

EXERCISE SCIENCE

CSCU Pathway Transfer Degree: Exercise Science Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Exercise Science, B.S.
At Eastern Connecticut State University	Sport and Leisure Management: Sports Science and Performance Concentration, E
At Southern Connecticut State University	Exercise Science, Human Performance Concentration, B.S.

Here is the recommended course of study for the Exercise Science Studies Transfer Degree. 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.

Please contact a campus advisor for this program:

Program Coordinator, Caitlin Moonesar, CMoonesar@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

BIO* 105 - Introduction to Biology **4 credits**
ENG* 101 - Composition **3 credits**
EXS* 101 - Introduction to Exercise Science and Wellness **3 credits**
PSY* 111 - General Psychology I **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 16

Second Semester

BIO* 211 - Anatomy and Physiology I **4 credits**
MAT* 167 - Principles of Statistics **3 credits**
NTR* 102 - Nutrition I: Principles of Nutrition **3 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 16

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you lan to graduate. FAFSA becomes available October 1.

BIO* 212 - Anatomy and Physiology II **4 credits**
EXS* 225 - Essentials of Strength and Conditioning **3 credits**
EXS* 227 - Exercise Testing & Program Design **4 credits**
EXS* 2## (this course is not currently offered at GCC. You can choose to take this course online or on ground at another campus).

Total Semester Credits: 15

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

COM* 173 - Public Speaking **3 credits**
EXS* 230 - Exercise Programming for Special Populations **3 credits**
EXS* 235 - Exercise Physiology **4 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**

Total Semester Credits: 13

Total Program Credits: 60

Exercise Science and Wellness, AS

Program Mission

To prepare students with the knowledge, attitudes and skills necessary for competent practice in exercise and for employment in the health and fitness industry while providing a basis for professional advancement.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Recognize which muscles are used in body movement patterns and then identify solutions to improve their performance

Conduct appropriate business and administrative practices, including marketing and promotion, in order to successfully operate in the field

Conduct individualized client consultations and fitness assessments

Design appropriate exercise programs for various populations (aged, youth, overweight/obese, chronic disease, etc.) based on assessments

Implement effective wellness programming specific for the needs of target populations

Exemplify the Code of Ethics of the American College of Sports Medicine and National Strength and Conditioning Association

Sit for national certification board exams

Admissions Requirements

Students must present current First Aid, CPR, and AED certification that has a practical skill examination component (such as the American Heart Association or the American Red Cross) and physical examination before beginning EXS* 212. For more information, please contact the Program Coordinator, Caitlin Moonesar at CMoonesar@gatewayct.edu for advice about course selection and information about additional costs, including liability insurance for EXS* 212.

Suggested Course Sequence

First Semester

BIO* 105 - Introduction to Biology **4 credits**
ENG* 101 - Composition **3 credits**
EXS* 101 - Introduction to Exercise Science and Wellness **3 credits**
MAT* 167 - Principles of Statistics **3 credits**
NTR* 102 - Nutrition I: Principles of Nutrition **3 credits**

Total Semester Credits: 16

Second Semester

BIO* 211 - Anatomy and Physiology I **4 credits**
ENG* 200 - Advanced Composition **3 credits**
EXS* 115 - Fitness Management **3 credits**

NTR* 103 - Nutrition Therapy I **3 credits**

Total Semester Credits: 13

Third Semester

BIO* 212 - Anatomy and Physiology II **4 credits**
EXS* 225 - Essentials of Strength and Conditioning **3 credits**
EXS* 227 - Exercise Testing & Program Design **4 credits**
EXS* 229 - Human Biomechanics **4 credits**

Total Semester Credits: 15

Fourth Semester

EXS* 212 - Exercise Science & Wellness Internship **3 credits**
EXS* 230 - Exercise Programming for Special Populations **3 credits**
EXS* 235 - Exercise Physiology **4 credits**
PHY* 101 - Physics for Today **3 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 16

Total Program Credits: 60

Fitness Specialist Certificate

Mission Statement

The mission of the Fitness Specialist Studies certificate program is to prepare graduates with entry level skills, and flexibility to compete successfully in a dynamic employment market wherever nutrition and fitness are emphasized.

The Fitness Specialist certificate prepares students for immediate employment in the fitness industry in such settings as health clubs, gyms, YMCAs, and corporate wellness programs. Graduates may also consider such self-employment careers as personal trainer or sales and marketing of health and nutrition programs and fitness equipment. Upon completion of the certificate program, students may take national exams for certification from a variety of fitness associations.

Admission Requirements

Students must present current First Aid and CPR certification that has a practical skill examination component (such as the American Heart Association or the American Red Cross) and physical examination before beginning EXS* 212. Please contact the Program Coordinator, Caitlin Moonesar at CMoonesar@gatewayct.edu for more information and for advice about course selection and information about additional costs, including liability insurance for EXS* 212.

Please click here for important important information on: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BIO* 211 - Anatomy and Physiology I **4 credits**
NTR* 102 - Nutrition I: Principles of Nutrition **3 credits**
Restricted (Elective) **3-4 credits** (see below)

Total Semester Credits: 10-11

Second Semester

BIO* 212 - Anatomy and Physiology II **4 credits**
NTR* 103 - Nutrition Therapy I **3 credits**

Total Semester Credits: 7

Third Semester

EXS* 225 - Essentials of Strength and Conditioning **3 credits**

Total Semester Credits: 3

Fourth Semester

EXS* 115 - Fitness Management **3 credits**
EXS* 212 - Exercise Science & Wellness Internship **3 credits**
EXS* 235 - Exercise Physiology **4 credits**

Total Semester Credits: 10

Total Program Credits: 30-31

Restricted Electives:

ACC* 113 - Principles of Financial Accounting I **3 credits**
BBG* 210 - Business Communication **3 credits**
BIO* 113 - Physiology of Aging **3 credits**
BES* 218 - Entrepreneurship **3 credits**
BMK* 201 - Principles of Marketing **3 credits**
BMK* 220 - Sales **3 credits**
CHE* 111 - Concepts of Chemistry **4 credits**
COM* 173 - Public Speaking **3 credits**
CSC* 101 - Introduction to Computers **3 credits**
CSC* 110 - Computer Logic and Problem Solving **3 credits**
EXS* 101 - Introduction to Exercise Science and Wellness **3 credits**
EXS* 102 - Seminar in Exercise Science and Wellness **3 credits**
EXS* 227 - Exercise Testing & Program Design **4 credits**
HSE* 151 - Introduction to Therapeutic Recreation **3 credits**
PSY* 109
PSY* 111 - General Psychology I **3 credits**

FIRE ADMINISTRATION

Fire Technology and Administration, 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 under the Fire and Emergency Service Higher Education (FESHE) model. The goal of the FESHE initiative is to ensure a clear and consistent path for professional development for members of the fire service. Colleges and Universities can seek recognition from the NFA by meeting the curriculum for their associate or bachelor's degree programs. For more information email DMarcarelli@gatewayct.edu.

Click here for important information on: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

FTA* 112 - Introduction to Fire Technology **3 credits**
FTA* 116 - Building Construction **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 115 - Mathematics for Science and Technology **3 credits**
    or
MAT* 137 - Intermediate Algebra **3 credits** (or higher)
BBG* 210 - Business Communication **3 credits**

Total Semester Credits: 15

Second Semester

FTA* 118 - Fire Prevention and Inspection **3 credits**
FTA* 122 - Fire Behavior and Combustion **3 credits**
FTA* 126 - Safety and Survival **3 credits**
CHE* 111 - Concepts of Chemistry **4 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**

Total Semester Credits: 16

Third Semester

FTA* 210 - Water Supply and Hydraulics **3 credits**

FTA* 216 - Municipal Fire Administration **3 credits**
FTA* 219 - Fire Investigation I **3 credits**
ECN* 101 - Macroeconomics **3 credits**
PHL* 111 - Ethics **3 credits**

Total Semester Credits: 15

Fourth Semester

FTA* 212 - Legal Aspects of Emergency Services **3 credits**
FTA* 217 - Occupational Safety & Health for Emergency Services **3 credits**
FTA* 227 - Fire Protection Systems **3 credits**
FTA* 229 - Fire Investigation II **3 credits**
FTA* 230 - Strategy and Tactics **3 credits**

Total Semester Credits: 15

Total Program Credits: 61

Firefighter 1 & 2 Certificate

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 and outside of New Haven County. Our 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.

Gateway students are prepared as first responders in a fire, traffic accident or medical emergency. Training includes CPAT (Candidate Physical Ability Test), FFI, FFII, and EMT 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. The majority of situations that firefighters respond to are medical—rather than fire—emergencies, and the aging of the population will lead to an increased demand for emergency responders. For more information, contact Dave Marcarelli by e-mail at dmarcarelli@gatewayct.edu.

Note: There are prerequisites, medical, PPE gear, and physical requirements for program enrollment as well as mandatory attendance at an information session for program enrollment. 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.

Click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

FTA* 100 - Fitness and Health for Firefighters **3 credits**
FTA* 101 - Fundamentals of Firefighting I **9 credits**

Total Semester Credits: 12

Second Semester

EMT* 100 - Emergency Medical Technician Basic **6 credits**
FTA* 102 - Fundamentals of Firefighting II **3 credits**
FTA* 103 - Civil Service Test Preparation **1 credits**
FTA* 110 - Fire Ground Hydraulics **3 credits**

Total Semester Credits: 13

Total Program Credits: 25

FOREIGN LANGUAGES

CSCU Pathway Transfer Degree: French Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	French, B.A.
At Eastern Connecticut State University	French, B.A.
At Southern Connecticut State University	French, B.A.
At Western Connecticut State University	French, B.A.

Here is the recommended course of study for the French Studies Transfer Degree. 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.

Please contact a campus advisor for this program:

Professor Victoria Morse, VMorse@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ENG* 101 - Composition **3 credits**
FRE* 101 - Elementary French I **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one Unrestricted Elective* **3 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take a math course that prepares you for required level of math in your program. If you begin French at a higher level than FRE 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Semester Credits: 15

Second Semester

FRE* 102 - Elementary French II **3 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **3 credits**
Choose one course in Scientific Reasoning **3-4 credits**
Choose one Unrestricted Elective* **3 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take a math course that prepares you for required level of math in your program. If you begin French at a higher level than FRE 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Semester Credits: 15-17

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

   FRE* 201 - Intermediate French I **3 credits**
   Choose one course in Scientific Knowledge and Understanding **3-4 credits**
   Choose one course in Social Phenomena **3 credits**
   Choose one General Education I - Creativity **3 credits**
      Choose one Unrestricted Elective* **3 credits**
      * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take a math course that prepares you for required level of math in your program. If you begin French at a higher level than FRE 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

   FRE* 202 - Intermediate French II **3 credits**
   Choose one course in Oral Communication **3 credits**
   Choose one course in Historical Knowledge and Understanding **3 credits**
   Choose one course in General Education II - Global Knowledge **3 credits**
      Choose one Unrestricted Elective* **3 credits**
      * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use these credits to take a math course that prepares you for required level of math in your program. If you begin French at a higher level than FRE 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Semester Credits: 15

Total Program Credits: 61

CSCU Pathway Transfer Degree: Italian Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Italian, B.A.
At Eastern Connecticut State University	Italian, B.A.
At Southern Connecticut State University	Italian, B.A.
At Western Connecticut State University	Italian, B.A.

Here is the recommended course of study for the Italian Studies Transfer Degree. 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.

Please contact a campus advisor for this program:

Professor Victoria Morse, VMorse@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ENG* 101 - Composition **3 credits**
ITA* 101 - Elementary Italian I **3 credits**
Choose one course in Critical Analysis and Logical Thinking **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Unrestricted Elective* **3 credits**
>*You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for the required level of math in your program. If you begin Italian at a higher level than ITA 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Central, Southern, and Western Connecticut State Universities, and Charter Oak State College--but not Eastern. Your advisor will help you to determine which courses to select.

Total Semester Credits: 15

Second Semester

ITA* 102 - Elementary Italian II **3 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **3-4 credits**
Choose one course in Quantitative Reasoning **3-4 credits**
Unrestricted Elective* **3 credits**
>*You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for the required level of math in your program. If you begin Italian at a higher level than ITA 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Central, Southern, and Western Connecticut State Universities, and Charter Oak State College--but not Eastern. Your advisor will help you to determine which courses to select.

Total Semester Credits: 15-17

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

> ITA* 201 - Intermediate Italian I **3 credits**
> Choose one course in Scientific Knowledge and Understanding **3-4 credits**
> Choose one course in Social Phenomena **3 credits**
> Choose one course in General Education I - Creativity **3 credits**
> Unrestricted Elective* **3 credits**
>> *You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for the required level of math in your program. If you begin Italian at a higher level than ITA 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Central, Southern, and Western Connecticut State Universities, and Charter Oak State College--but not Eastern. Your advisor will help you to determine which courses to select.

Total Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

> ITA* 202 - Intermediate Italian II **3 credits**
> Choose one course in Oral Communications **3 credits**
> Choose one course in Historical Knowledge and Understanding **3 credits**
> Choose one course in General Education II - Global Knowledge **3 credits**
> Unrestricted Elective* **3 credits**
>> *You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for the required level of math in your program. If you begin Italian at a higher level than ITA 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives 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 Central, Southern, and Western Connecticut State Universities, and Charter Oak State College--but not Eastern. Your advisor will help you to determine which courses to select.

Total Semester Credits: 15

Total Program Credits: 61

CSCU Pathway Transfer Degree: Spanish Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Spanish, B.A.
At Eastern Connecticut State University	Spanish, B.A.
At Southern Connecticut State University	Spanish, B.A.
At Western Connecticut State University	Spanish, B.A.

Here is the recommended course of study for the Spanish Studies Transfer Degree. 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.

Please contact a campus advisor for any questions:

Professor Victoria Morse, VMorse@gatewayct.edu

First Semester

ENG* 101 - Composition **3 credits**
SPA* 101 - Elementary Spanish I **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Unrestricted Elective* **3 credits**
> *You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these cedits to take a math course that prepares you for the required level of math in your program. If you begin Spanish at a higher level than SPA 101, you will receive additional unrestricted electives. You should also consider using unrestricted electives to gegin 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 Central, Southern and Western Connecticut State Universities and Charter Oak State College--but not Eastern Connecticut State University. Your advisor will help you to determine which courses to select.

Total Program Credits: 15

Second Semester

SPA* 102 - Elementary Spanish II **3 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **3-4 credits**
Choose one course in Quantitative Reasoning **3-4 credits**
Unrestricted Elective* **3 credits**
> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for required level of math in your 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 Semester Credits: 15-17

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

SPA* 201 - Intermediate Spanish I **3 credits**
Choose one course in Scientific Knowledge and Understanding **3 credits**
Choose one course in Social Phenomena **3 credits**
Choose one course in General Education I - Creativity **3 credits**
Unrestricted Elective* **3 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for required level of math in your 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 Semester Credits: 16

Fourth Semester

SPA* 202 - Intermediate Spanish II **3 credits**
Choose one course in Oral Communication **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Choose one course in General Education II - Global Knowledge **3 credits**
Unrestricted Elective* **3 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for required level of math in your 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 Program Credits: 15

Total Program Credits: 61-63

GENERAL STUDIES

General Studies, AS

The General Studies curriculum provides the fundamentals of a college education together with a range of open electives, allowing students to explore various courses of study and to clarify their educational and occupational goals. It is the least restrictive of all the degrees offered by the College so that students may put together a program compatible with their individual interests and skills. For more information, call the General Studies Coordinator, Associate Professor Catherine Babbitt at (203) 285-2104 or e-mail at (CBabbitt@gatewayct.edu).

General Studies Program Outcomes

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

Identify educational and occupational goals
Work with others in a culturally and intellectually diverse community
Utilize effective written and oral communication skills
Apply quantitative methods to problem solving
Apply scientific methods of investigation
Demonstrate competency in using current, relevant technologies

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

ENG* 101 - Composition **3 credits**
FYE* 111 - First Year Seminar **3 credits**
MAT* 109 - Quantitative Literacy **3 credits**

Total Semester Credits: 15

Second Semester

ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
Choose one course in Scientific Knowledge (SK: Scientific Knowledge & Understanding) **3-4 credits**
ANT*, PSY*, SOC* (Elective) **3 credits**
Open (Elective) **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15-16

Third Semester

Choose one course in (Gen Ed - CALT: Critical Analysis/Logical Thinking) **3 credits**
Choose one course in (Gen Ed - OC: Oral Communication) **3 credits**
Choose one course in (Gen Ed - SP: Social Phenomena) **3 credits**
Open (Electives) **6 credits**

Total Semester Credits: 15

Fourth Semester

BIO*, CHE*, EAS*, EVS*, MAT* or PHY* (Elective) **3 credits**
Restricted Elective (see below) **3 credits**
Open (Electives) **9 credits**

Total Semester Credits: 15

Total Program Credits: 60-61

Restricted Electives

ACC* 113 - Principles of Financial Accounting I **3 credits**
ARC* 133 - Technical Drafting **3 credits**
ART*
BIO* 115 - Human Biology **4 credits**
BES* 218 - Entrepreneurship **3 credits**
BES* 239 - Business Plan **3 credits**
BFN* 110 - Personal Finance **3 credits**
BMG* 203 - Leadership **3 credits**
COM* 121 - Journalism I **3 credits**
COM* 141 - Television Production I **3 credits**
CSA* 105 - Introduction to Software Applications **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
CSA* 140 - Database Applications (Access) **3 credits**
CJS* 101 - Introduction to Criminal Justice **3 credits**
CJS* 102 - Introduction to Corrections **3 credits**
DAR* 158 - Biology of Addiction **3 credits**
DAN*
EAS* 106 - Natural Disasters **3 credits**
ENG* 281 - Creative Writing **3 credits**
EVS* 100 - Introduction to Environmental Science **3 credits**
ESL*
FRE*
GRA* 261 - Web Design I **3 credits**
HLT* 103 - Investigations in Health Careers **3 credits**
HSP* 101 - Principles of Food Preparation **3 credits**
HSP* 103 - Principles of Baking I **3 credits**
HSP* 249 - Food Writing **3 credits**
HUM* 130 - Philosophy and Practice of Yoga **3 credits**
HSE* 212 - Mediation **3 credits**
ITA*
MAT* 146 - Mathematics for the Liberal Arts **3 credits**
MUS*
PHY* 101 - Physics for Today **3 credits**
SPA*
THR*

GEOGRAPHY

CSCU Pathway Transfer Degree: Geography Studies, A.A.

With this degree, you will be able to transfer to the following majors:

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.
Southern Connecticut State University	Geography, B.A.
	Geography - Concentration: Geographic Information Science and Technology, B.S.

Here is the recommended course of study for the Geography Studies Degree. 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.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ENG* 101 - Composition **3 credits**
Choose one course in Historical Knowledge and Understanding - **3 credits**
Choose one course in Aesthetic Dimensions - **3 credits**
Unrestricted Elective (see below) - **3 credits**
Select one of the following courses - 3 credits
GEO* 101, or GEO 102 or GEO 111 (GEO 102 and 111 are not available at Gateway. In order to complete them, you will need to take them at another institution).

Total Semester Credits: 15

Second Semester

Select one of the following you have **not** already taken:

GEO* 101 or GEO 102 or GEO 111 (GEO 102 and 111 are not available at Gateway. In order to complete them, you will need to take them at another institution).
Choose one course in Quantitative Reasoning - **3-4 credits**
Choose one course in Written Communication II - **3 credits**
Choose one course in Scientific Reasoning - **4 credits**
Unrestricted Elective (see below) - **3 credits**

Total Semester Credits: 16-17

Third Semester

Begin the transfer application process in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

- Choose one course in Scientific Knowledge and Understanding - **3 credits**
- Choose one course in Social Phenomena - **3 credits**
- Choose one course in Additional General Education I - Creativity - **3 credits**
- Unrestricted Electives (2) (see below) (GEO 204 is strongly recommended if you are planning to pursue the Specialization in Tourism at Central) - **6 credits**

Total Semester 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation.

- Choose one course in Critical Analysis and Information Literacy - **3 credits**
- Choose one course in Oral Communication **- 3 credits**
- Choose one course in Additional General Education II - Global Knowledge - **3 credits**
- Unrestricted Electives (2) (see below) - **6 credits**

Total Semester Credits: 15

Total Program Credits: 60

Unrestricted Electives

Use unrestricted elective credits to complete 9 credits in one subject area; 3 - 6 of these credits may also meet general education requirements. You should consider pursuing a minor subject area based upon your specific field of interest in geography. Some suggested disciplines include: Anthropology, Earth Science, Economics, Environmental Science, Geography (CCSU), Geology, History, Mathematics (statistics preferred), Political Science, Computer Science.

These courses are meant to complete 50% of the minor requirement in all of CCSU's specialization, but can also be used to begin a minor or second major at SCSU. CCSU allows you to major *and* minor in Geography as long as your minor is in a different specialization from the major.

You are free to choose any courses at or above 100-level to complete unrestricted electives, although you may need to use these credits to take courses that prepare you for required courses in the degree program. You should also consider using unrestricted electives to meet foreign language requirements at Central Eastern and Western Connecticut State Universities or to begin work on completing a minor. CCSU 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 CCSU. 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.

HISTORY

CSCU Pathway Transfer Degree: History Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	History, B.A.
At Eastern Connecticut State University	History, B.A.
At Southern Connecticut State University	History, B.A.
At Western Connecticut State University	History, B.A.
At Charter Oak State College	General Studies - History Concentration, B.A.

Here is the recommended course of study for the History Studies Transfer Degree. 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.

Please contact a campus advisor for this program:

Professor Joe Maynard, JMaynard@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

HIS* 201 - U.S. History I **3 credits**
ENG* 101 - Composition **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one Unrestricted Elective* **3 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15

Second Semester

HIS* 202 - U.S. History II **3 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **3-4 credits**
Choose one course in Quantitative Reasoning **3-4 credits**
Choose one Unrestricted Elective* **3 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15-17

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

- Choose one course in Scientific Knowledge and Understanding **3-4 credits**
- Choose one course in Social Phenomena **3 credits**
- Choose one General Education I - Creativity **3 credits**
- Choose two Unrestricted Electives* **6 credits**

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

- Choose one course in Oral Communication **3 credits**
- Choose one course in Historical Knowledge and Understanding **3 credits** (you cannot use U.S. History I or U.S. History II to meet this requirement)
- Choose one General Education II - Global Knowledge **3 credits**
- Choose two Unrestricted Electives* **6 credits**

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15

Total Program Credits: 60-61

HOSPITALITY MANAGEMENT

Hotel Management, AS

The lodging industry is one of the fastest-growing industries in the nation. In the more than 50,000 hotels in the U.S.A., nearly four million rooms are available each day. Gross annual income exceeds $20 billion dollars. In the first year at Gateway Community College, students study the various aspects of the lodging industry. In the second year, emphasis is placed on practical management experience. As part of the course requirements, students participate in a 400-hour work experience/internship program. For individuals who want to continue their studies following graduation, courses in this program are transferable to similar programs at four-year colleges and universities.

Students in this program will be required to travel to local internship and work experience sites.

Program Outcomes

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

Process reservations, register guests, process guest departures, and assist in 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 member of a team, serve clients and customers, teach others new skills, exercise leadership behavior, negotiate, and work with others from diverse backgrounds

Identify such current trends in the lodging industry as delivery systems and functions

Perform basic mathematical computations accurately and appropriately, especially with regard to hotel and guest accounting, night audits, and cost controls for hotel and food operations within the hotel

Describe and apply basic marketing, sales, and merchandising methods in hospitality operations

Graduates of the Hotel Management program are qualified for employment as supervisors in small hotels and inns as trainees and assistants in large hotels, and as salespersons and front office agents. For more information, call the Hospitality Management Program Coordinator, Stephen Fries, at (203) 285-2175 or e-mail at (sfries@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BMG* 202 - Principles of Management **3 credits**
    or
ENG* 101 - Composition **3 credits**
HSP* 100 - Introduction to the Hospitality Industry **3 credits**
HSP* 134 - Hospitality Customer Relations **3 credits**
HSP* 237 - Hospitality Marketing **3 credits**

Total Semester Credits: 15

Second Semester

BBG* 210 - Business Communication **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**

HSP* 117 - Beverage Management **3 credits**
IDS 106 - Critical Thinking - Business **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)

Total Semester Credits: 15

Third Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
HSP* 211 - Food and Beverage Cost Control **3 credits**
HSP* 231 - Hospitality Law **3 credits**
Choose any course in BIO*, CHE*, EAS*, EVS*, PHY* (Gen Ed - SK: Scientific Knowledge) **3 credits**

Total Semester Credits: 15

Fourth Semester

BMG* 220 - Human Resources Management **3 credits**
HSP* 244 - Meetings, Conventions, and Special Events Management **3 credits**
HSP* 246 - Hotel Accounting and Front Office Management **3 credits**
HSP* 295 - Hospitality Management, Internship/Work Experience I **3 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 15

Summer

HSP* 298 - Hospitality Management Internship/Work Experience II **1 credits**

Total Semester Credits: 1

Total Program Credits: 61

Additional Requirements

Students seeking both the A.S. degree in Hotel Management and the A.S. degree in Restaurant and Food Service Management must complete all of the requirements of the Hotel Management degree as well as:

BES* 218 - Entrepreneurship **3 credits**
BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet) **3 credits**
HSP* 112 - Advanced Food Preparation **4 credits**
HSP* 232 - Restaurant Management **3 credits**
HSP* 249 - Food Writing **3 credits**

Meetings, Conventions and Special Events Management Certificate

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. For more information, call the Hospitality Management Program Coordinator, Stephen Fries, at (203) 285-2175 or e-mail at (sfries@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BBG* 210 - Business Communication **3 credits**
    or
COM* 173 - Public Speaking **3 credits**
HSP* 100 - Introduction to the Hospitality Industry **3 credits**
BMK* 215 - Principles of eBusiness **3 credits**

Total Semester Credits: 9

Second Semester

HSP* 231 - Hospitality Law **3 credits**
HSP* 237 - Hospitality Marketing **3 credits**
HSP* 244 - Meetings, Conventions, and Special Events Management **3 credits**
    Restricted Electives: (Choose one): CSA* 135, CSA* 140, BOT* 220

Total Semester Credits: 12

Total Program Credits: 21

Restaurant and Food Service Management, AS

The food service industry is one of the fastest-growing industries in this country and now ranks third in the nation in terms of growth. The industry offers job opportunities in many areas where food and drink are served, including restaurants, commercial, industrial, and health care organizations. There are more than 600,000 restaurants in the country, employing more than nine million workers.

Food service establishments serve more than 800 million meals per week, and gross sales exceed $150 billion each year. Graduates of the Restaurant and Food Service Management program are qualified for employment in food production, food and beverage cost control, supervision, food service budgeting, and forecasting. As part of the course requirements, students participate in a 400-hour work experience program. Individuals who wish to continue their studies following graduation may transfer courses in this program to similar programs at the baccalaureate level.

Please click here for important information regarding: Becoming Connecticut State Community College

Students in this program will be required to:

- Travel to local internship and work experience sites
- Communicate with guests in Café Vincenzo
- Lift and transport food and other culinary products, equipment, small wares and utensils around the kitchen
- Lift and transport trays with hot and cold plated food, small ware and other items
- Pour and serve hot and cold liquids and beverages
- Use knives and other commercial cooking and food service equipment
- Maneuver in a commercial kitchen, dining room and related facilities
- Use commercial cleaning and sanitizing equipment and materials
- Handle a variety of food items including meat, fish, poultry, produce and dairy products
- Follow local Board of Health and safety protocol

Program Outcomes

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

- Identify, organize, plan, and allocate resources in food service operations such as time, materials and facilities, money, and human resources
- Demonstrate knowledge of basic food preparation theories and techniques, and use this knowledge to meet the production requirements of a food service operation within a projected budget
- Apply concepts of procurement and inventory to purchase, receive, store, issue, and distribute food and related items in a food service operation
- Identify such current trends in the food service industry as delivery systems and functions
- Demonstrate ethical behavior and self-management in personal and professional activities and work with others from diverse backgrounds
- Perform basic mathematical computations accurately and appropriately, especially with regard to food and beverage purchasing, and cost controls
- Describe and apply basic marketing, sales, and merchandising methods in hospitality operations
- Promote the use and development of technology, critical thinking and communication skills in hospitality leadership

Students in this program are responsible for purchasing uniforms, books, and knives. For information, call the Hospitality Management Program Coordinator, Professor Stephen Fries, at (203) 285-2175 or e-mail at (sfries@gatewayct.edu).

Suggested Course Sequence

First Semester

HSP* 100 - Introduction to the Hospitality Industry **3 credits**
HSP* 101 - Principles of Food Preparation **3 credits**
HSP* 109 - Food Safety Certification **1 credits**
ENG* 101 - Composition **3 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 13

Second Semester

BBG* 210 - Business Communication **3 credits**
ENG* 102 - Literature and Composition **3 credits**
   or
ENG* 200 - Advanced Composition **3 credits**
HSP* 112 - Advanced Food Preparation **4 credits**
HSP* 117 - Beverage Management **3 credits**
MAT* 109 - Quantitative Literacy **3 credits**

Total Semester Credits: 16

Third Semester

HSP* 134 - Hospitality Customer Relations **3 credits**
HSP* 211 - Food and Beverage Cost Control **3 credits**
HSP* 231 - Hospitality Law **3 credits**
HSP* 237 - Hospitality Marketing **3 credits**
Choose one course in Scientific Knowledge (Gen Ed - SK: Scientific Knowledge) **3-4 credits**

Total Semester Credits: 15-16

Fourth Semester

ACC* 113 - Principles of Financial Accounting I **3 credits**
HSP* 232 - Restaurant Management **3 credits**
HSP* 249 - Food Writing **3 credits**
HSP* 295 - Hospitality Management, Internship/Work Experience I **3 credits**
BES* 218 - Entrepreneurship **3 credits**

Total Semester Credits: 15

Summer

HSP* 298 - Hospitality Management Internship/Work Experience II **1 credits**

Total Semester Credits: 1

Total Program Credits: 60-61

Additional Requirements

Students seeking both the A.S. degree in Restaurant and Food Service Management and the A.S. degree in Hotel Management must complete all of the requirements of the Restaurant and Food Service Management degree as well as:

  BMG* 220 - Human Resources Management **3 credits**
  CSA* 135 - Spreadsheet Applications (Excel) **3 credits**
  HSP* 244 - Meetings, Conventions, and Special Events Management **3 credits**
  HSP* 246 - Hotel Accounting and Front Office Management **3 credits**
  IDS 106 - Critical Thinking - Business **3 credits**

HUMAN SERVICES

CSCU Pathway Transfer Degree: Social Work Studies, A.A.

With this degree, you will be able to transfer to any CSU and **apply** to the following majors:

At Central Connecticut State University	Social Work, B.A.
At Eastern Connecticut State University	Social Work, B.A.
At Southern Connecticut State University	Social Work, B.S.
At Western Connecticut State University	Social Work, B.A.

Here is the recommended course of study for the Social Work Studies Transfer Degree. 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.

Please contact a campus advisor for more information:

Professor Kim Shea, KShea@gatewayct.edu

Note: *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 103/201, HSE 101/SOC 235, SOC 101, BIO 115, POL 111, & MAT 167/MAT 201/MAT 165/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 HSE 101/SOC 235 and SW 227. (5) Minimum scores of 3 on the Professional Social Work Disposition Rubric for SW 225, HSE 101/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.*
Note: *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). The application is linked to http//www1.easternct.edu/socialwork/admissions/.*

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ENG* 101 - Composition **3 credits**
HSE* 101 - Introduction to Human Services **3 credits**
MAT* 167 - Principles of Statistics **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one Unrestricted Elective* **3 credits**
> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take courses that prepare you for required courses in your 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 Program Credits: 15

Second Semester

BIO* 115 - Human Biology **4 credits**
POL* 111 - American Government **3 credits**
SOC* 101 - Principles of Sociology **3 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 16

Third Semester

In addition to **applying to the SOCIAL WORK program**, you also need to begin the **transfer application process** to the University in your third semester <u>or</u> the semester before you plan to graduate. FAFSA become available October 1.

ANT* 105 - Introduction to Cultural Anthropology **3 credits**
PSY* 111 - General Psychology I **3 credits**
SOC* 201 - Contemporary Social Issues **3 credits**
Choose one course in Scientific Knowledge and Understanding **3-4 credits**
Choose one course in General Education I - Creativity **3 credits**

Total Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one course in Oral Communication **3 credits**
Choose one course in General Education II - Global Knowledge **3 credits**
Choose one **or** two courses from the following: HSE* 247, HSE* 271, HSE* 281, PSY* 245, SOC* 210, or SOC* 220 **3-6 credits**
Choose one Unrestricted Elective* **0-3 credits**

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Program Credits: 15

Total Program Credits: 61

Gerontology Certificate

The gerontology certificate curriculum meets the continuing educational needs of providers and users of services to older citizens. Applicants may be employees in the field of gerontology or elderly citizens themselves, hospital administrators, or students enrolled in other programs at the College. For more information, contact Kim Shea, Program Coordinator at (203) 285-2116 or e-mail at (kshea@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

BIO* 113 - Physiology of Aging **3 credits**
SOC* 114 - Sociology of Aging **3 credits**
PSY* 210 - Death and Dying **3 credits**

Total Semester Credits: 9

Second Semester

HSE* 247 - Supervisors' Seminar **3 credits**
PSY* 209 - Psychology of Aging **3 credits**

Total Semester Credits: 6

Total Program Credits: 15

Human Services Career, AS

Mission Statement

The field of Human Services is dynamic and challenging. The concept of human services stresses care for the whole individual and his or her relation to the environment. The sequential courses develop knowledge of personality patterns and behavior, roles and functions of community resources, and skills in each curriculum option. The program prepares students for employment in a variety of social service settings, including mental health services, schools, children and family services, community action programs, health and welfare planning, elderly services, and the criminal justice system.

Curricula prepare students for entry into the job market and for transfer into baccalaureate degree programs. Field experience is an integral part of the Human Services curriculum. It exposes students directly to clients in community service settings to apply the theories and skills learned in the classroom. The field experience and seminar course must be taken during the same semester. In the various degree programs, students are eligible for field placement once they complete 24-35 credits toward the degree and are able to demonstrate a sufficient level of competence and skill. Prior to each semester Human Services students are expected to consult with the Program Coordinator before registering for courses.

For more information please contact Professor Kim Shea, Program Coordinator at 203.285.2116 or e-mail at kshea@gatewayct.edu.

Program Outcomes

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

Effectively organize, acquire, and present information in written and spoken form
Use effective verbal and nonverbal interpersonal relationship skills when working with people
Identify human service agencies and programs within Greater New Haven, Connecticut, and the national social services system
Recognize and respond to cultural diversity and the diverse challenges facing certain populations served by human services
Act professionally with clients and agency personnel in human service settings
Identify basic problems that human service workers encounter and the most useful strategies for resolution
Behave ethically according to professional human services standards

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

BIO* 110 - Principles of the Human Body **3 credits**
ENG* 101 - Composition **3 credits**
HSE* 101 - Introduction to Human Services **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** (or higher)
SOC* 101 - Principles of Sociology **3 credits**

Total Semester Credits: 15

Second Semester

ENG* 102 - Literature and Composition **3 credits**
        or

ENG* 200 - Advanced Composition **3 credits**
POL* 111 - American Government **3 credits**
PSY* 111 - General Psychology I **3 credits**
SOC* 111 - Child, Family, School and Community **3 credits**
    or
SOC* 210 - Sociology of the Family **3 credits**
Restricted Electives (see below) 3 **credits**

Total Semester Credits: 15

Third Semester

HSE* 243 - Human Services Skills and Methods **3 credits**
PSY* 105 - Group Dynamics **3 credits or** any course above PSY* 111
PSY* 245 - Abnormal Psychology **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Fourth Semester

HSE* 281 - Human Services Field Work I **3 credits**
PHL* 101 - Introduction to Philosophy **3 credits**
    or
PHL* 111 - Ethics **3 credits**
PSY* 233 - Theories, Methods and Practice of Counseling and Therapy **3 credits**
Restricted Elective (see below) **6 credits**

Total Semester Credits: 15

Total Program Credits: 60

Restricted Electives:

Please contact the Program Coordinator for additional options.

CSA* 105 - Introduction to Software Applications **3 credits**
PSY* 122 - Child Growth and Development **3 credits**
PSY* 209 - Psychology of Aging **3 credits**
PSY* 210 - Death and Dying **3 credits**
SOC* 114 - Sociology of Aging **3 credits**
Any CJS course
Any DAR course
Any HSE course higher than HSE 101

Human Services Certificate

The Human Service Certificate curriculum is designed for the professional who is already employed in the field of Human Services. For more information, contact Professor Kim Shea, Program Coordinator at (203) 285-2116 or e-mail at (kshea@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Program Requirements

First Semester

COM* 173 - Public Speaking **3 credits**
ENG* 101 - Composition **3 credits**
HSE* 101 - Introduction to Human Services **3 credits**
PSY* 111 - General Psychology I **3 credits**
SOC* 101 - Principles of Sociology **3 credits**

Total Semester Credits: 15

Second Semester

HSE* 247 - Supervisors' Seminar **3 credits** (S)
POL* 111 - American Government **3 credits**
PSY* 105 - Group Dynamics **3 credits**
PSY* 245 - Abnormal Psychology **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Total Program Credits: 30

Restricted Electives

(S) Offered spring semester

BIO* 113 - Physiology of Aging **3 credits**
DAR* (any)
PSY* 209 - Psychology of Aging **3 credits**
PSY* 122 - Child Growth and Development **3 credits**
PSY* 210 - Death and Dying **3 credits**
SOC* 114 - Sociology of Aging **3 credits**
CJS* (any)
Any HSE* course higher than HSE* 101

Human Services Transfer, AS

Mission Statement

The field of Human Services is dynamic and challenging. The concept of human services stresses care for the whole individual and his or her relation to the environment. The sequential courses develop knowledge of personality patterns and behavior, roles and functions of community resources, and skills in each curriculum option. The program prepares students for employment in a variety of social service settings, including mental health services, schools, children and family services, community action programs, health and welfare planning, elderly services, and the criminal justice system.

Curricula prepare students for entry into the job market and for transfer into baccalaureate degree programs. Field experience is an integral part of the Human Services curriculum. It exposes students directly to clients in community service settings to apply the theories and skills learned in the classroom. The field experience and seminar course must be taken during the same semester. In the various degree programs, students are eligible for field placement once they complete 24-35 credits toward the degree and are able to demonstrate a sufficient level of competence and skill. Prior to each semester Human Services students are expected to consult with the Program Coordinator before registering for courses.

For more information please contact Professor Kim Shea, Program Coordinator at 203.285.2116 or e-mail at kshea@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

> Effectively organize, acquire, and present information in written and spoken form
> Use effective verbal and nonverbal interpersonal relationship skills when working with people
> Identify human service agencies and programs within Greater New Haven, Connecticut, and the national social services system
> Recognize and respond to cultural diversity and the diverse challenges facing certain populations served by human services
> Act professionally with clients and agency personnel in human service settings
> Identify basic problems that human service workers encounter and the most useful strategies for resolution
> Behave ethically according to professional human services standards

Suggested Course Sequence

First Semester

> ENG* 101 - Composition **3 credits**
> HIS* 101 - Western Civilization I **3 credits**
>   **or**
> HIS* 102 - Western Civilization II **3 credits**
> HSE* 101 - Introduction to Human Services **3 credits**
> MAT* 137 - Intermediate Algebra **3 credits** or higher
> SOC* 101 - Principles of Sociology **3 credits**

Total Semester Credits: 15

Second Semester

ENG* 102 - Literature and Composition **3 credits**
> **or**

ENG* 200 - Advanced Composition **3 credits**
POL* 111 - American Government **3 credits**
PSY* 111 - General Psychology I **3 credits**
SOC* 111 - Child, Family, School and Community **3 credits**
> **or**

SOC* 210 - Sociology of the Family **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Third Semester

BIO* 105 - Introduction to Biology **4 credits**
> **or**

BIO* 115 - Human Biology **4 credits**
HSE* 243 - Human Services Skills and Methods **3 credits**
PSY* 105 - Group Dynamics **3 credits or** any PSY* above 111
PSY* 245 - Abnormal Psychology **3 credits**
SOC* 220 - Racial & Ethnic Diversity **3 credits**

Total Semester Credits: 16

Fourth Semester

ANT* 105 - Introduction to Cultural Anthropology **3 credits**
HSE* 281 - Human Services Field Work I **3 credits**
PHL* 101 - Introduction to Philosophy **3 credits**
> **or**

PHL* 111 - Ethics **3 credits**
Choose one course in Aesthetic Dimension (Gen Ed - AD: Aesthetic Dimension) **3 credits**
Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Total Program Credits: 61

Restricted Electives

CSA* 105 - Introduction to Software Applications **3 credits**
ECN* 102 - Microeconomics **3 credits**
ENG* 281 - Creative Writing **3 credits**
POL* 102 - Introduction to Comparative Politics **3 credits**
THR* 110 - Acting I **3 credits**
Any studio art or music.
Any HSE course higher than HSE 101

Human Services: Gerontology Option, AS

This option prepares students for entry-level positions working with the elderly and for transfer to a four-year college. The option presents the demographic, social, biological, and psychological changes occurring in elderly people and how these changes determine the skills and services needed to work in gerontology. For more information, contact Professor Kim Shea at 203-285-2116 or KShea@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

- BIO* 113 - Physiology of Aging **3 credits**
- ENG* 101 - Composition **3 credits**
- HSE* 101 - Introduction to Human Services **3 credits**
- MAT* 109 - Quantitative Literacy **3 credits** (or higher)
- SOC* 101 - Principles of Sociology **3 credits**

Total Semester Credits: 15

Second Semester

- ENG* 102 - Literature and Composition **3 credits**
    or
- ENG* 200 - Advanced Composition **3 credits**
- HSE* 247 - Supervisors' Seminar **3 credits**
- PHL* 101 - Introduction to Philosophy **3 credits**
    or
- PHL* 111 - Ethics **3 credits**
- PSY* 111 - General Psychology I **3 credits**
- PSY* 209 - Psychology of Aging **3 credits**

Total Semester Credits: 15

Third Semester

- HSE* 243 - Human Services Skills and Methods **3 credits**
- POL* 111 - American Government **3 credits**
- PSY* 245 - Abnormal Psychology **3 credits**
- SOC* 114 - Sociology of Aging **3 credits**
- Restricted Elective (see below) **3 credits**

Total Semester Credits: 15

Fourth Semester

- HSE* 281 - Human Services Field Work I **3 credits**

PSY* 233 - Theories, Methods and Practice of Counseling and Therapy **3 credits**
Restricted Elective (see below) **3 credits**
Choose one course in AD, HK, OC, or SR (Gen Ed) **3 credits**

Total Semester Credits: 15

Total Program Credits: 60

Restricted Electives

CSA* 105 - Introduction to Software Applications **3 credits**
PSY* 201 - Life Span Development **3 credits**
PSY* 210 - Death and Dying **3 credits**
Any DAR course.
Any HSE course higher than HSE 101

Therapeutic Recreation Certificate

This program prepares students to work as Therapeutic Recreation Directors under Connecticut State Regulations. With a steadily growing health care field, employment opportunities for Therapeutic Recreation Directors continue to increase. Students can pursue opportunities working with a variety of populations including Alzheimer's and dementia, autism, short-term rehabilitation, home care and individuals with a variety of physical and mental disabilities. For more information, contact Kim Shea, Program Coordinator at (203) 285-2116 or e-mail at (kshea@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Identify the purpose, service goals and outcomes of the therapeutic recreation profession

Identify and analyze the skills necessary to provide appropriate interventions to individuals with special needs

Demonstrate ability to write measurable goals and behavioral objectives for individuals with special needs

Demonstrate knowledge of assessment, planning, implementation and evaluation skills needed for professional documentation

Evaluate the different models for program delivery and recognize their strengths and weaknesses in relation to working with diverse populations with special needs

First Semester

BIO* 113 - Physiology of Aging **3 credits**
HSE* 151 - Introduction to Therapeutic Recreation **3 credits**
HSE* 152 - Programming in Therapeutic Recreation **3 credits**

Total Semester Credits: 9

Second Semester

HSE* 153 - Methods and Materials for Therapeutic Recreation **3 credits**
HSE* 247 - Supervisors' Seminar **3 credits**
   Restricted Electives (choose one): PSY* 209, PSY* 210 or SOC* 114

Total Semester Credits: 9

Total Program Credits: 18

Youth Worker Certificate

This certificate supports the professional development of people who work with youth, ages 12 and up. The program facilitates an understanding of adolescent development and the diverse ways in which adolescents learn about and experience the world. Courses prepare youth workers to assist youth, colleagues, organizations, and communities. Students learn about valuable local, state, and national youth development projects and resources.

Field experience is an integral part of the Youth Worker curriculum and is coordinated with the seminar assignments. The field experience and seminar courses must be taken during the same semester. For more information, contact Kim Shea, Program Coordinator at (203) 285-2116 or e-mail at (kshea@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

COM* 173 - Public Speaking **3 credits**
ENG* 101 - Composition **3 credits**
HSE* 101 - Introduction to Human Services **3 credits**
SOC* 101 - Principles of Sociology **3 credits**
   Elective: Computer Literacy

Total Program Credits: 15

Second Semester

DAR* 101 - Public Health Issues: Abuse & Addiction **3 credits**
HSE* 228 - Youth Work Seminar **3 credits**
HSE* 281 - Human Services Field Work I **3 credits**
PSY* 105 - Group Dynamics **3 credits**
   Restricted Electives: ECE* 101 or SOC* 210

Total Semester Credits: 18

Total Program Credits: 33

Suggested Course Sequence

INTERDISCIPLINARY PEACE, COLLABORATION, & CONFLICT

Interdisciplinary Peace, Collaboration, & Conflict Certificate

The Interdisciplinary Peace, Collaboration, and Conflict Certificate (IPCC) promotes the knowledge and skills leading to student success in meeting educational and workplace goals. Interactive traditional and online instruction and external service learning internships give students the opportunities to recognize their capacity to understand personal and global conflict and to use strategies that support emotional health and nonviolence. The Interdisciplinary Peace, Collaboration, and Conflict Certificate builds capacity in our communities to prevent and sustain a culture of nonviolence instead of reacting to it. Our faculty, staff, and students are involved in many local and statewide organizations that focus on the fields of peace education and collaborative conflict resolution. The Certificate promotes and coordinates services and educational opportunities to reduce and eliminate violence.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

- Recognize the value of creative, collaborative and innovative approaches to problem-solving and acknowledging differing points of view
- Respond critically to ethical issues while applying standards of scholarship
- Apply a multi-scalar perspective to peace practices including alternative dispute resolution and mediation; reconciliation; peace building and peace making, peace keeping
- Clearly communicate peace and conflict concepts in both oral and written forms. Respond promptly to rhetorical situations, utilize and evaluate sources, construct logical arguments, apply language conventions and formulate effective writing strategies
- Access, evaluate, and identify information appropriate to needs and audience, synthesize information and evaluate ethical and social issues associated with the use of information technologies

Program Requirements

HUM* 125 - Introduction to Peace and Conflict Studies **3 credits**
PHL* 111 - Ethics **3 credits**
HSE* 212 - Mediation **3 credits**
IDS 292 - Peace/Conflict Service Learning Internship **3 credits**
Restricted Elective **3 Credits**

Total Program Credits: 15

Restricted Electives

ANT* 105 - Introduction to Cultural Anthropology **3 credits**
CJS* 101 - Introduction to Criminal Justice **3 credits**
CJS* 102 - Introduction to Corrections **3 credits**
ENG* 202 - Technical Writing **3 credits**
ECE* 176 - Health, Safety & Nutrition **3 credits**
HIS* 253 - History of Human Rights **3 credits**
HUM* 130 - Philosophy and Practice of Yoga **3 credits**
PSY* 105 - Group Dynamics **3 credits**

LIBERAL ARTS AND SCIENCES

Liberal Arts and Sciences, AA

The Associate in Arts degree in Liberal Arts and Sciences (LAS) is designed for students who wish to complete a rigorous course of study in preparation for transfer to a baccalaureate degree program. A broadly integrated curriculum will provide students with an essential understanding of traditional discipline areas, as well as the academic skills necessary to engage them. Students will become familiar with techniques of inquiry in humanities, mathematics, natural sciences, and social sciences, allowing them to continue their education with confidence toward a 4-year degree in the discipline of their choice.

Courses which satisfy the requirements for an Associate's degree in the Liberal Arts and Sciences at Gateway are in many cases the same as those taught in the first two years of the Bachelor's degree program at receiving schools. With an LAS degree, students may pursue a professional degree (e.g., in education, business, science, law, medicine, social work, etc.) or a liberal arts degree at the bachelor's level (e.g., in English, philosophy, natural science, or mathematics, etc.). In order to ensure maximum transfer credit to the college or university of choice, students are strongly encouraged to study the catalog of the institution to which they intend to transfer and consult directly with its admissions office. Students should also confer each semester with the LAS program coordinator, or a qualified transfer advisor as they proceed.

Students considering transfer within the Connecticut State Colleges and Universities should consider a CSCU Transfer Ticket A.A. Degree: [Discipline] Studies. Visit www.ct.edu/transfer for more information.

For more information, contact the Program Coordinator, Dr. Lauren Doninger, at LDoninger@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

- Communicate effectively orally and in writing
- Demonstrate an understanding of the human experience from an historical perspective
- Draw from multiple disciplines and recognize the difference between reliable and unreliable sources in conducting an argument, and use reliable sources to think and argue critically and logically
- Employ scientific and quantitative reasoning skills to solve problems
- Articulate aesthetic and ethical aspects of human endeavor
- Analyze sociocultural context on the behavior of individuals and groups

General Education Requirements

In order to transfer as efficiently as possible and complete your baccalaureate degree without taking extra credits, all course selections should be made based on intended transfer institution and intended major. Seek advising.

Course Area	Courses	Credits
Written Communication I (WC I)	ENG* 101	3
Written Communication II (WC II)	ENG* 102 or ENG* 200	3
Quantitative Reasoning (QR)	MAT* 137 (or higher)	3

Course Area	Courses	Credits
Social Phenomena (SP)	Any course designated for Social Phenomena	3
Historical Knowledge (HK)	Any course designated for Historical Knowledge	3
Scientific Knowledge (SK)	Any course designated for Scientific Knowledge	3
Critcal Analysis & Logical Thinking (CALT)	PHL* 101, PHL* 111 or PHL* 202	3
	Total Credits	**21**

Program Requirements

Course Area	Courses	Cr
Foreign Language	FRE*/ITA*/SPA* 102 or higher (requirement may be waived for bilingual students and students who have completed level II of a foreign language in high school. Credits may be filled with open elective--consider transfer institution requirements and seek advising)	
Scientific Reasoning (SR)	Choose any 4 credit course in: BIO*, CHE*, EAS*, EVS*, PHY*	
Aesthetic Dimension (AD)	ART* 101 , ART* 102 , MUS* 101	
Oral Communication (OC)	COM* 173	
Liberal Arts & Sciences Electives	Students are strongly encouraged to seek advisement and carefully consider transfer issues and intended baccalaureats major. LAS elective course prefixes are: ANT*, ART*, BIO*, CHE*, COM*, EAS*, ECN*, ENG*, EVS*, FRE*, GEO*, HIS*, HUM*, ITA*, MAT*, MUS* (non-performance), PHL*, PHY*, POL*, PSY*, SGN*, SOC*, SPA*, THR*	
Open Electives	Students are strongly encouraged to seek advisement and carefully consider transfer issues.	
	Total Program Credits	

Total Degree Credits: 61

Liberal Arts and Sciences Transfer Opportunities

Gateway Community College Liberal Arts and Sciences students are able to transfer seamlessly to nearly any college/university for which they are qualified. Students have successfully transferred to, and graduate from colleges across the state and nation, including many top-tier institutions, and Ivy League schools. Requirements of baccalaureate institutions vary greatly as do the award of transfer credits. Therefore, students should select a transfer institution and major early, work with their Admissions Office, and meet with the Liberal Arts and Sciences program coordinator or a qualified transfer advisor to ensure maximum transfer credit of their course selections.

Connecticut State University System (Central, Eastern, Southern, and Western)

Students with an associate degree from a Connecticut Community College are guaranteed admission to any Connecticut State University. However, admission to competitive majors is not guaranteed. Students may be better served with the CSCU Transfer Ticket A.A. Degree: [Discipline] Studies. Visit www.ct.edu/transfer for more information.

Southern Connecticut State University

Students graduating with a degree in Liberal Arts and Sciences may transfer to SCSU having satisfied the Southern Liberal Education Program (LEP – their general education core), provided they have taken the correct math course, and in some cases, specific courses required by certain majors which are included in SCSU's LEP. The LEP LAS graduates will have the SCSU foreign language requirement waived. Capstone must be completed at SCSU. Southern provides active, regular advising at Gateway.

Pathway to Teaching – Southern Connecticut State University (SCSU)

The Pathway to Teaching is designed for Liberal Arts and Sciences students who intend to become certified elementary or secondary teachers in Connecticut. The Pathway prepares students to apply to the School of Education at SCSU and transfer seamlessly. Students interested in becoming elementary school teachers should contact Carmelita Valencia-Daye (cvalencia-daye@gatewayct.edu). Students interested in becoming a middle or high school teacher should contact Lauren Doninger (ldoninger@gatewayct.edu).

University of Connecticut

The Guaranteed Admission Program (GAP) is a transfer agreement between Connecticut Community Colleges and the University of Connecticut that guarantees admission to the University in the College of Liberal Arts and Sciences, College of Agriculture, Health and Natural Resources (select majors), or the School of Business. First time students who have attempted no more than 30 transferable credits may apply to GAP. Students must graduate from GCC with a minimum cumulative grade point average of 3.0 (3.3 for School of Business) and an associate degree in a Liberal Arts and Sciences. Former UConn degree-seeking students are not eligible to participate in GAP. Visit http://admissions.uconn.edu/apply/transfer/gap. To complete the required application and begin the GAP advising process, see Dr. Lauren Doninger (Ldoninger@gatewayct.edu).

University of Bridgeport

Gateway Community College and the University of Bridgeport (UB) have an articulation agreement that guarantees admission to UB and provides substantial scholarships based on GPA. GCC students must have completed their associate's degree and have earned a 2.5 GPA to be guaranteed admission. Program pathways are specified in the articulation agreement. UB will accept all GCC general education courses as equivalent to UB core curriculum or electives. There is no application fee and students will receive joint GCC and UB advising. Students participating in the UB articulation are eligible for the UB accelerated degree program – IDEAL. To complete the application and begin the dual-admission advising process, see Dr. Lauren Doninger (Ldoninger@gatewayct.edu). Visit www.bridgeport.edu.

Albertus Magnus College

Gateway Community College and Albertus Magnus College (AMC) have an articulation agreement that guarantees admission with junior standing to all AA and AS degree graduates. The agreement includes the traditional AMC undergraduate program. AMC provides guaranteed scholarships based on GPA. There is no application fee and students will receive joint GCC and AMC advising. Visit www.albertus.edu.

MANUFACTURING ENGINEERING TECHNOLOGY

Manufacturing Engineering Technology, AS

Manufacturing Engineering Technology is a varied and challenging field that is becoming increasingly important with the advent of new production methods. Manufacturing Engineering Technicians work with engineers to design experiments, plan production methods, find better ways to manufacture products, troubleshoot, inspect, and perform quality control. Students use Computer Aided Drafting (CAD), Computer Aided Manufacturing (CAM), and Computer Integrated Manufacturing (CIM) technologies to design cutting tools, gauges, jigs, fixtures, and dies; study production line layout, production forecasting, planning, inventory control, and statistical quality control; learn the methods of determining and distributing expenses and estimating material, labor, and tool costs of product manufacturing; make time studies of manufacturing operations; and investigate hydraulic control, manufacturing processes, and engineering materials. For more information, contact Kititakone Panasy at (203) 285-2376 or e-mail kpanasy@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Apply foundations of mathematics, science, and technology to manufacturing engineering
Work cooperatively and productively with others in a laboratory test setting
Plan and implement manufacturing principles and processes
Design, prototype, and manufacture 2-dimensional (2D) and 3-dimensional (3D) computer aided drafting (CAD) models
Utilize Computer numerical Control (CNC) programming alongside Computer Aided Manufacturing (CAM) software to control industry-standard CNC equipment
Understand and demonstrate statistical quality control
Read blueprints and understand geometric dimensioning and tolerancing
Understand and demonstrate tool design for manufacturing

Suggested Course Sequence

First Semester

ARC* 133 - Technical Drafting **3 credits**
CET* 116 - Computer Applications for Technology **3 credits**
COM* 173 - Public Speaking **3 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits**
MFG* 102 - Manufacturing Processes **3 credits**

Total Semester Credits: 15

Second Semester

CAD* 108 - CAD Introduction **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**
MFG* 108 - Computer Aided Manufacturing **4 credits**
PHY* 121 - General Physics I **4 credits**

Total Semester Credits: 18

Third Semester

CAD* 200 - 3D CAD Modeling **4 credits**
MFG* 204 - Advanced Computer Aided Manufacturing **4 credits**
PHY* 122 - General Physics II **4 credits**
    or
MAT* 254 - Calculus I **4 credits**
Choose one course in Gen Ed - SP: Social Phenomena/Knowledge/Understanding **3 credits**

Total Semester Credits: 15

Fourth Semester

ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
MFG* 208 - Process Engineering **4 credits**
MFG* 216 - Tool Designing **4 credits**
MFG* 230 - Statistical Process Control **3 credits**
MFG* 296 - Manufacturing Internship **3 credits**

Total Semester Credits: 17

Total Program Credits: 65

MATHEMATICS

CSCU Pathway Transfer Degree: Mathematics Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Mathematics, B.A.
	Mathematics, B.A. - Actuarial Science Specialization
	Mathematics, B.A. - Statistics Specialization
At Eastern Connecticut State University	Mathematics, B.A.
At Southern Connecticut State University	Mathematics, B.A.
	Mathematics, B.S. - Concentration: Applied
At Western Connecticut State University	Mathematics, B.A.
	Mathematics, B.A. - Computer Science Option
At Charter Oak State College	General Studies: Mathematics Concentration, B.A.

Here is the recommended course of study for the Mathematics Studies Transfer Degree. 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.

Contact a campus advisor for any questions:

Professor Susan Spencer, SSpencer@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**
Choose one course in Scientific Reasoning **4 credits** (choose from the following: BIO* 121, CHE* 121, PHY* 121)
Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 14

Second Semester

MAT* 254 - Calculus I **4 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Knowledge and Understanding **4 credits** (you must choose the second course in the
    sequence you **began** in the first semester--choose from: BIO* 122, CHE* 122, or PHY* 122
Choose one Unrestricted Elective* **3 credits**
    * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may
    need to use some of these credits to take courses that prepare you for required courses in your 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 Semester Credits: 14

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

>
> CSC* 124 - Programming Logic & Design with Python **3 credits**
> MAT* 256 - Calculus II **4 credits**
> Choose one course in Social Phenomena **3 credits**
> Choose one course in Historial Knowledge and Understanding **3 credits**
>> Choose one Unrestricted Elective* **3 credits**
>> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

>
> MAT* 268 - Calculus III: Multivariable **4 credits**
> Choose one course in Critical Analysis/Logical Thinking **3 credits**
> Choose one course in Oral Communications **3 credits**
> Choose one course from: MAT* 272 or MAT* 285
> Choose one Unrestricted Elective* **3 credits**
>> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 16

Total Program Credits: 60

MECHANICAL ENGINEERING TECHNOLOGY

Mechanical Engineering Technology, AS

Mechanical Engineering Technology concerns power and the machinery used to convert power to useful work. The Mechanical Engineering Technician is a practically-oriented member of the engineering team who applies existing technology to the solution of engineering problems. Students learn how to extract and analyze engineering data. Microcomputers are integrated into the curriculum to aid in both classroom and laboratory activities. Senior students are assigned projects in which they apply the principles they have learned. Applications to current technology are stressed and individual initiative is encouraged. The program is designed to train students as Mechanical Engineering Technicians ready for entry-level positions in industry upon graduation.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Outcomes

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

Prepare and present technical and laboratory reports using modern computer software and oral presentation skills

Prepare drawing and designs of machine components both manually and with the help of AutoCAD, Solidworks, and Pro-Engineer 3D modeling software

Understand the nature, science, structure, and properties of metallic, plastic, ceramic, and composite engineering materials

Measure the mechanical properties (tensile strength, hardness, impact strength, torsional shear strength, toughness, etc.) of a material specimen in a laboratory

Draw the Free Body Diagram (FBD) of a two-dimensional body and solve its equations of equilibrium

Perform force analyses of machine and frames

Calculate the deformation of and thermal stress caused by temperature and pressure changes in various objects and vessels

Analyze a column and determine the critical load that will cause it to fail

Students enrolling in the Mechanical Engineering Technology program should plan to spend approximately $60.00 on drafting equipment. For more information, call Jacob Jackson, Program Coordinator at (203) 285-2428 or e-mail at (jjackson1@gatewayct.edu).

Suggested Course Sequence

First Semester

ARC* 133 - Technical Drafting **3 credits**
CAD* 108 - CAD Introduction **3 credits**
CET* 116 - Computer Applications for Technology **3 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits**
MFG* 102 - Manufacturing Processes **3 credits**

Total Semester Credits: 15

Second Semester

COM* 173 - Public Speaking **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 186 - Precalculus **4 credits**
MEC* 104 - Mechanics - Statics **3 credits**
PHY* 121 - General Physics I **4 credits**

Total Semester Credits: 17

Third Semester

MAT* 254 - Calculus I **4 credits**
MEC* 234 - Electromechanical Controls **4 credits**
MEC* 250 - Strength of Materials **3 credits**
MEC* 271 - Fluid Mechanics **4 credits**

Total Semester Credits: 15

Fourth Semester

ENG* 102 - Literature and Composition **3 credits**
   or
ENG* 200 - Advanced Composition **3 credits**
MEC* 265 - Materials Science **4 credits**
MEC* 283 - Design of Machines **4 credits**
MEC* 296 - Mechanical Engineering Internship **2 credits**

Total Semester Credits: 13

Total Program Credits: 60

Quality Control Certificate

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. For more information, contact Kititakone Panasy at (203) 285-2376 or e-mail at (kpanasy@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

    ARC* 133 - Technical Drafting **3 credits**
    QUA* 114 - Principles of Quality Control **3 credits**
    MAT* 175 - College Algebra and Trigonometry **3 credits**

Total Semester Credits: 9

Second Semester

    MFG* 102 - Manufacturing Processes **3 credits**
    MFG* 239 - Geometric Dimensioning and Tolerancing **3 credits**
    MFG* 230 - Statistical Process Control **3 credits**

Total Semester Credits: 9

Total Program Credits: 18

NUCLEAR MEDICINE TECHNOLOGY

Diagnostic Imaging and Therapy: Nuclear Medicine Technology, AS

Information about the Diagnostic Imaging and Therapy Programs

The Associate in Science degree and certificate programs 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 (Nuclear Medicine) 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. Students are assigned to a clinical practicum at Yale-New Haven Hospital, Yale New Haven Hospital St. Raphael Campus, Yale University PET Center, 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), Milford Hospital, William W. Backus Hospital (Norwich), Lawrence & Memorial Hospital (New London), and UCONN Medical Center (Farmington). Simulated labs are held in the Nuclear Medicine lab at the Gateway campus and are scheduled on lecture days. Students

are required to attend all orientation sessions scheduled in the summer in order to begin the program in the fall semester. For more information, call the Enrollment Services Assistant, Mary Beth Banks at (203) 285-2388 or e-mail at (MBanks@ gatewayct.edu) or the Program Coordinator, Ann-Marie Jones at (203) 285-2381 or e-mail at ajones@gatewayct.edu). Please see the Radiologic Technology Programs webpage for more information about the admissions process.

Please click here for important information regarding: Becoming Connecticut State Community College

Mission Statement

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 patientcare.

Program Outcomes

1. Students will demonstrate skills in effective oral and written communication

    1.1 Students will demonstrate oral communication skills

    1.2 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

    2.1 Students will assess patient requisitions in order to perform proper imaging procedures

    2.2 Students will use critical thinking to overcome clinical challenges

3. Students will demonstrate clinical competence in the practice of Nuclear Medicine

    3.1 Students will apply As Low as Reasonably Achievable (ALARA) principles and practices of radiation protection

    3.2 Students will provide appropriate 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 2017", SNMMI Technologist Section: www.snmmi.org):

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.

Program Requirements

First Semester

(Practicum at affiliates Tuesday and Thursday)

ENG* 101 - Composition **3 credits**
MAT* 172 - College Algebra **3 credits**
PHY* 111 - Physics for the Life Sciences **4 credits**
NMT* 101 - Introduction to Nuclear Medicine **3 credits**
NMT* 102 - Nuclear Medicine Procedures I **3 credits**

NMT* 111 - Clinical Practicum I **1 credits**

Total Semester Credits: 17

Winter Intersession

(Practicum at affiliates Monday through Friday, 40 hrs./week)

NMT* 113 - Clinical Internship I **0.5 credits**

Total Semester Credits: .5

Second Semester

(Practicum at affiliates Tuesday and Thursday)

CHE* 111 - Concepts of Chemistry **4 credits**
ENG* 102 - Literature and Composition **3 credits**
   or
ENG* 200 - Advanced Composition **3 credits**
NMT* 112 - Clinical Practicum II **1 credits**
NMT* 121 - Physics in Nuclear Medicine **3 credits**
NMT* 201 - Nuclear Medicine Procedures II **3 credits**

Total Semester Credits: 14

Summer Session

(Practicum at affiliates Monday through Friday, May through August)
(40 hrs./week at clinical affiliates)

NMT* 126 - Clinical Internship II **3 credits**

Total Semester Credits: 3

Third Semester

(Practicum at affiliates Monday, Wednesday, and Friday)

PSY* 111 - General Psychology I **3 credits**
NMT* 202 - Nuclear Medicine Instrumentation **3 credits**
NMT* 203 - Radiopharmacy **3 credits**
NMT* 211 - Clinical Practicum III **2 credits**
RST 200 - Cross Sectional Anatomy **3 credits**

Total Semester Credits: 14

Winter Intersession

(Practicum at affiliates Monday through Friday 40 hrs./week)

    NMT* 216 - Clinical Internship III **0.5 credits**

Total Semester Credits: .5

Fourth Semester

(Practicum at affiliates Monday, Wednesday, and Friday)

    NMT* 212 - Clinical Practicum IV **2 credits** *
    NMT* 221 - Nuclear Medicine Procedures III **3 credits**
    NMT* 222 - Introduction to Computers and Nuclear Medicine Applications **3 credits**
    NMT* 223 - Nuclear Medicine Seminar **3 credits**

Total Semester Credits: 11

Total Program Credits: 60

Total Clinical Practicum at the affiliates, (includes Clinical Internships I, II and III), is approximately 1,800 hours

Nuclear Medicine Technology Certificate

The certificate program in Nuclear Medicine Technology is designed to 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 (Nuclear Medicine) and the Nuclear Medicine Technology Certification Board (NMTCB). The program requires approximately twenty-two (22) months of clinical and academic coursework. The structure of the curriculum includes appropriate didactic content and ample supervised clinical education to assure sufficient opportunity to achieve all didactic and clinical requirements.

Students are assigned to a clinical practicum at Yale-New Haven Hospital, Yale New Haven Hospital St. Raphael Campus, 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), Waterbury Hospital, Milford Hospital, William W. Backus Hospital (Norwich), Lawrence & Memorial Hospital (New London), Saint Francis Hospital and Medical Center (Hartford), and UCONN Medical Center (Farmington). Simulated labs are held in the Nuclear Medicine lab at the Gateway campus and are scheduled on lecture days. Students are required to attend all orientation sessions scheduled in the summer in order to begin the program in the fall semester.

For more information, call the Enrollment Services Assistant, Mary Beth Banks at (203) 285-2388 or e-mail at (MBanks@gatewayct.edu) or the Program Coordinator, AnnMarie Jones, at (203) 285-2381 or e-mail at (ajones@gatewayct.edu).

Please click here for important information regarding: Becoming Connecticut State Community College

Prerequisites

Certificate program applicants must possess all of the following prerequisites:

An associate degree in one of the following modalities:
Radiography
Radiation Therapy
Diagnostic Medical Sonography

The following policy may apply to applicants who do not possess an associate degree:

Gateway Community College will grant credit to those applicants who are graduates of a two-year accredited hospital (certificate) based program and hold certification by the American Registry of Radiologic Technologists. Certification areas include: Radiography, Nuclear Medicine, Diagnostic Medical Sonography, and Radiation Therapy. (see ARRTS program)
Current and active credentials by one of the following certifying boards:
American Registry of Radiologic Technologists-Radiography (RTR)
American Registry of Radiologic Technologists-Radiation Therapy (RTT)
American Registry of Diagnostic Medical Sonographers (RDMS)
The applicant must have completed the following courses with a "C" or better in their A.S. Degree program to be eligible for the NMT Certificate Program: CHE* 111 - Concepts of Chemistry; MAT* 172 - College Algebra; PHY* 111 - Physics for the Life Sciences; human anatomy and physiology with lab; medical terminology content; two courses in written communication and social science elective.
Please see the Diagnostic Imaging and Therapy programs' webpage for more information about the admissions process.

Program Outcomes

Program outcomes for Nuclear Medicine Technology Certificate Program are the same as for Nuclear Medicine Technology Associate in Science Degree (see degree outcomes).

Program Requirements

Program requirements will be changing for the year 2017. For more information, please contact Mary Beth Banks, Allied Health & Nursing Enrollment Services Assistant, at (203) 285-2388 or mbanks@gatewayct.edu.

First Semester

(Practicum at affiliates Tuesday and Thursday)

    NMT* 102 - Nuclear Medicine Procedures I **3 credits**
    NMT* 111 - Clinical Practicum I **1 credits**

Total Semester Credits: 4

Second Semester

(Practicum at affiliates Tuesday and Thursday)

    NMT* 112 - Clinical Practicum II **1 credits**
    NMT* 121 - Physics in Nuclear Medicine **3 credits**
    NMT* 201 - Nuclear Medicine Procedures II **3 credits**

Total Semester Credits: 7

Summer Session

(Practicum at affiliates Monday through Friday, May through July")
(40 hrs./week at clinical affiliates)

    NMT* 126 - Clinical Internship II **3 credits**

Total Semester Credits: 3

Third Semester

(Practicum at affiliates Monday, Wednesday, and Friday)

    NMT* 202 - Nuclear Medicine Instrumentation **3 credits**
    NMT* 203 - Radiopharmacy **3 credits**
    NMT* 211 - Clinical Practicum III **2 credits**
    RST 200 - Cross Sectional Anatomy **3 credits**

Total Semester Credits: 11

Winter Intersession

(Practicum at affiliates Monday through Friday 40 hrs./week)

NMT* 216 - Clinical Internship III **0.5 credits**

Total Semester Credits: .5

Fourth Semester

(Practicum at affiliates Monday, Wednesday, and Friday)

NMT* 212 - Clinical Practicum IV **2 credits** *
NMT* 221 - Nuclear Medicine Procedures III **3 credits**
NMT* 222 - Introduction to Computers and Nuclear Medicine Applications **3 credits**
NMT* 223 - Nuclear Medicine Seminar **3 credits**

Total Semester Credits: 11

Total Program Credits: 36.5

NURSING

Nursing, AS

The Connecticut Community College Nursing Program (CT-CCNP) is an innovative associate degree program of study offered at six Connecticut Community Colleges. Gateway Community College offers evening classes with day and evening clinical experiences. The common nursing program offers a four-semester curriculum designed to prepare registered nurses to function in the professional role utilizing current standards of nursing practice. In addition, students within the program have the same admission and policy standards, which allows for greater student flexibility.

The Nursing Program is a four-semester program which, upon successful completion, awards an Associate in Science Degree. 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. Six core values (critical thinking, safe and competent practice, caring, professionalism, communication, and holistic care) provide the framework for organizing the nursing curriculum.

A graduate of the nursing program is awarded an Associate in Science degree and is eligible to take the National Council Licensing Examination for Registered Nurses (NCLEX-RN).

Graduates can apply for licensure through the Connecticut Department of Public Health.

The graduate is prepared to function as an entry-level practitioner in health care settings such as general or specialty hospitals, extended care facilities, doctors' offices, and clinics.

Please click here for important information regarding: Becoming Connecticut State Community College

Approval and Accreditation

All of the programs are individually approved by the Connecticut State Board of Examiners for Nursing with the consent of the Commissioner of the Connecticut Department of Public Health and are accredited by the Accreditation Commission for Education in Nursing (ACEN) located at 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; P: 404-975-5000, www.acenursing.org.

The Role of the Associate Degree Graduate within the Scope of Nursing Practice

The Nursing Program will provide the graduate with the knowledge and technical skills to practice in a safe, effective and competent manner within the legal and ethical framework for an entry-level Registered Nurse. The scope of practice for the Associate Degree graduate is to provide and manage care for a diverse group of individuals, families and communities in collaboration with members of the health care team consistent with the CT-CCNP core values.
For more information, please contact Mary Beth Banks, Enrollment Services Assistant, at MBanks@gatewayct.edu.

Advisement, Application Process, Admission Requirements

Please refer to the Nursing Information Packet that can be found in the nursing section on the Gateway Community College website - www.gatewayct.edu.

Nursing - End of Program Student Outcomes

Upon successful completion of the Nursing Program, the graduate will:

Integrate the principles of the natural, physical, social, biological and behavioral sciences, and nursing theory to provide holistic care to individuals, families, and groups across the wellness-illness continuum

Integrate nursing process and critical thinking skills for decision-making in nursing practice

Provide safe and competent care to individuals, families and groups utilizing evidence-based practice, quantitative reasoning and technological proficiency

Integrate effective communication skills through professional interactions with individuals, families, groups, and the health care team

Create an environment where therapeutic interventions reflect a respect for human dignity

Collaborate as a member of a multidisciplinary health team

Integrate accountability and responsibility for practice within the legal and ethical standards of the nursing profession

Function in the professional role utilizing current standards of nursing practice.

Program of Study

The following program of study reflects a full-time curriculum plan that students enrolled in the nursing program are required to complete for graduation. Many students make the decision to enroll in the nursing program on a part-time basis, taking the general education courses prior to the nursing courses. Non-nursing courses must be taken in the semester indicated in the plan of study below or may be taken earlier; nursing courses must be taken in the stated sequence.

The admission and pre-requisite requirements of BIO* 211 - Anatomy and Physiology I, BIO* 212 - Anatomy and Physiology II, and ENG* 101 - Composition are credits (11 credits) that are part of the total 68 credits required for graduation. BIO* 211 and ENG* 101 must be completed prior to submitting an application; BIO* 212 may be in progress and the applicant may be accepted pending successful completion with a grade of C+ or higher. Please refer to the Nursing Information page 172 of this packet for a complete list of admission requirements.

A grade of **C** is required for all co-requisite courses in the nursing plan of study unless a higher grade is required for admission to the program. Co-requisite courses must be satisfactorily completed before or during the semester in which they are scheduled in the curriculum. Students who fail to complete required co-requisite courses may be dismissed from the program.

Program Requirements

Admission Requirements

BIO* 211 - Anatomy and Physiology I **4 credits** +
ENG* 101 - Composition **3 credits** +

Pre-Requisite Requirements

BIO* 212 - Anatomy and Physiology II **4 credits** +

First Semester

BIO* 235 - Microbiology **4 credits** +
NUR* 120 - Nursing in Health & Illness I **9 credits**
PSY* 111 - General Psychology I **3 credits** +

Total Semester Credits: 16

Second Semester

NUR* 125 - Nursing in Health & Illness II **8 credits**
PSY* 201 - Life Span Development **3 credits** +
SOC* 101 - Principles of Sociology **3 credits** +

Total Semester Credits: 14

Third Semester

ENG* 102 - Literature and Composition **3 credits** +
NUR* 220 - Nursing in Health & Illness III **9 credits**
200 level English (College specific requirements)

Total Semester Credits: 12

Fourth Semester

NUR* 225 - Nursing in Health & Illness IV **8 credits**
NUR* 226 - Transition to Professional Nursing Practice **1 credits**
Elective - Humanities, Fine Arts OR College specific requirement - **3 credits**

Total Program Credits: 65

(General Education Credits - 30 credits; Nursing Credits - 38 credits)
+ There may be a prerequisite course that must be successfully completed prior to taking the course.
++ Norwalk Community College requires one interdisciplinary course to fulfill core curriculum requirements
^ Naugatuck Valley Community College requires COM*100 to fulfill core curriculum requirements.

Total Semester Credits: 12

NUTRITION & DIETETICS

Nutrition and Dietetics, AS

Nutrition and Dietetics Mission Statement

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.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Goals

Goal 1: The program will prepare graduates to be competent entry-level nutrition and dietetics technicians, registered.

Objectives:

Graduate Performance

1. 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 full-time program students complete program/degree requirements within 3 years (150% of the program length).

Program Completion

4. At least 70% of part-tie program students complete program/degree requirements within 6 years (150% of the program length for part-time students).

Program Specific

5. 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.

Goal 2: To prepare graduates to successfully enter the Nutrition and Dietetics workforce.

Objectives:

1. Of graduates who seek employment, 70 percent are employed in nutrition and dietetics or related fields within 12 months of graduation.'

Employer Satisfaction

2. 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. 80% of graduates are confident in their ability to communicate in writing, speaking, and presenting Nutrition and Dietetics to a variety of individuals and groups.

There is a growing demand for qualified personnel in the field of nutrition and dietetics throughout the United States. The registered dietetic technician works under the supervision of a registered dietitian nutritionist in health care, community nutrition, and food service management. Registered dietetic technicians 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 Nutrition and Dietetics program is currently granted accreditation by Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics (A.N.D.), 120 South Riverside Plaza, Suite 2190, Chicago, Illinois 60606-6995; (312) 899-0040 ext. 5400 or (800) 877-1600; www.eatright.org. Graduates of the program are encouraged to take the Commission on Dietetic Registration's registration examination to become Nutrition and Dietetics Technician, Registered (NDTR). Graduates are also eligible for membership in the A.N.D. and the Association of Nutrition and Foodservice Professionals (ANFP). Graduates may take the ANFP exam to become a Certified Dietary Manager, Certified Food Protection Professional (CDM, CFPP). 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 nutrition and dietetics. A minimum of 450 hours of supervised internship provides opportunities to practice these skills. Students who wish to transfer to an A.N.D.-accredited four-year program in nutrition and dietetics should consult the program director regarding the transferability of courses.

Program Outcomes

The program outcomes are available upon request.

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, CPR, travel to field sites, parking, and meals. Specific information about these costs and coverage for accident and liability insurance is available from the Program Coordinator, Marcia Doran. A complete physical examination is required before internship begins.

Graduation Requirements

In addition to the College's general requirements, this program requires a minimum grade of "C" 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 a student from the Nutrition and Dietetics program whose health, clinical performance, attendance, or conduct does not meet the program standards. For more information, contact the Program Coordinator, Professor Marcia Doran, at (203) 285-2390 or e-mail mdoran@gatewayct.edu.

Suggested Course Sequence

First Semester

ENG* 101 - Composition **3 credits**

HSP* 109 - Food Safety Certification **1 credits**
MAT* 137 - Intermediate Algebra **3 credits**
NTR* 101 - Introduction to Dietetics **3 credits**
NTR* 102 - Nutrition I: Principles of Nutrition **3 credits**
NTR* 120 - Foods **3 credits**

Total Semester Credits: 16

Second Semester

BIO* 115 - Human Biology **4 credits**
COM* 173 - Public Speaking **3 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
NTR* 103 - Nutrition Therapy I **3 credits**
NTR* 105 - Food Management Systems **3 credits**

Total Semester Credits: 16

Summer Session

NTR* 210 - Nutrition Internship I **3 credits**

Total Semester Credits: 3

Third Semester

CHE* 111 - Concepts of Chemistry **4 credits**
NTR* 200 - Nutrition Through the Life Cycle **3 credits**
NTR* 201 - Community Nutrition Education **3 credits**
NTR* 212 - Nutrition Internship II **3 credits**

Total Semester Credits: 13

Fourth Semester

NTR* 202 - Nutrition Therapy II **3 credits**
NTR* 205 - Management in Dietetics **3 credits**
NTR* 214 - Nutrition Internship III **3 credits**
Choose one course in (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**

Total Semester Credits: 12

Total Program Credits: 60

PHYSICS

CSCU Pathway Transfer Degree: Physics Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Physics, B.S.
At Eastern Connecticut State University	Physics, B.S.
At Southern Connecticut State University	Physics, B.S.
	Physics, B.A.
At Western Connecticut State University	Physics, B.S.
At Charter Oak State College	General Studies - Physics Concentration, B.A.

Here is the recommended course of study for the Physics Studies Transfer Degree. 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.

Please contact a campus advisor for more information:

Professor Robert Tremblay, RTremblay@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

CHE* 121 - General Chemistry I **4 credits**
ENG* 101 - Composition **3 credits**
MAT* 254 - Calculus I **4 credits**
Choose one Unrestricted Elective*# **3-4 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepares you for required level of math in your 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.
# If you have not taken Physics in high school, you should use this elective to take either PHY* 109 or PHY* 111

Total Semester Credits: 14-15

Second Semester

CHE* 122 - General Chemistry II **4 credits**
MAT* 256 - Calculus II **4 credits**
PHY* 221 - Calculus-Based Physics I **4 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**

Total Semester Credits: 15

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

MAT* 268 - Calculus III: Multivariable **4 credits**
PHY* 222 - Calculus-Based Physics II **4 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one course in Social Phenomena **3 credits**

Total Semester Credits: 17

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

MAT* 285 - Differential Equations **3 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Oral Communications **3 credits**
Choose one course in General Education - Creativity **3 credits**
Choose one course in General Education II - Global Knowledge **3 credits**

Total Semester Credits: 15

Total Program Credits: 61

POLITICAL SCIENCE

CSCU Pathway Transfer Degree: Political Science Studies, A.A.

With this degree, you 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.

Here is the recommended course of study for the Political Science Studies Transfer Degree. 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 specifc courses you will take from within a category.

Please contact a campus advisor for any questions:

Professor Joe Maynard, JMaynard@gatewayct.edu
Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

ENG* 101 - Composition **3 credits**
POL* 111 - American Government **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Choose one course in Quantitative Analysis **3 credits**
Choose one Unrestricted Elective* **3 credits**
* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take courses that prepare you for required courses in your 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 Semester Credits: 15

Second Semester

Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Elective - Choose any POL* course
Unrestricted Elective* **3 credits**

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15-16

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available on October 1.

> Choose any courese in Scientific Knowledge and Understanding **3 credits**
> Choose one course in Social Phenomena **3 credits**
> Choose one General Education I - Creativity **3 credits**
> Elective - Choose any POL course
> Unrestricted Elective* **3 credits**

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

> Choose one course in Critical Analysis/Logical Thinking **3 credits**
> Choose one course ikn Oral Communication **3 credits**
> Choose one course in Genral Education II **-** Global Knowledge **3 credits**
> Choose **two** Unrestricted Electives* **6 credits**

* You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Program Credits: 15

Total Program Credits: 60-61

PSYCHOLOGY

CSCU Pathway Transfer Degree: Psychology Studies, A.A.

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Psychological Science, B.A.
At Eastern Connecticut State University	Psychology, B.S.
At Southern Connecticut State University	Psychology, B.A.
At Western Connecticut State University	Psychology, B.A.
At Charter Oak State College	Psychology, B.S.

Here is the recommended course of study for the Psychology Studies Transfer Degree. 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.

Please contact a campus advisor for questions:

> Professor Teresa Russo, TRusso@gatewayct.edu

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

> ENG* 101 - Composition **3 credits**
> MAT* 167 - Principles of Statistics **3 credits**
> Choose one course in Critical Analysis/Logical Thinking **3-4 credits**
> PSY* 111 - General Psychology I **3 credits** [**]
> Choose one Unrestricted Elective* **3 credits**
>> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required courses in your 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.
>> ** Students who transfer to SCSU will use PSY 111 to fulfill a SCSU General Education requirement and have only the Capstone requirement left--unless they use PSY 111 to fullfill a *community college* General Education requirement. In that case, they will have an additional LEP requirement at SCSU.

Total Program Credits: 15

Second Semester

> PSY* 201 - Life Span Development **3 credits**
> Choose one course in Written Communication II **3 credits**
> Choose one course in Scientific Reasoning **3-4 credits**

Choose one course in Historical Knowledge and Understanding **3 credits**

Choose one Unrestricted Elective* **3 credits**

> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15-16

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

PSY* 245 - Abnormal Psychology **3 credits**

Choose one course in Social Phenomena **3 credits**

Choose one course in Scientific Knowledge and Understanding **3-4 credits**

Choose one course in General Education I - Creativity **3 credits**

Choose one Unrestricted Elective* **3 credits**

> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

PSY* 240 - Social Psychology **3 credits**

Choose one course in Aesthetic Dimensions **3 credits**

Choose one course in Oral Communications **3 credits**

Choose one course in General Education II - Global Knowledge **3 credits**

Choose one Unrestricted Elective* **3 credits**

> * You are free to choose any courses at or above the 100-level to complete unrestricted electives, although you may need to use some of these credits to take a math course that prepare you for required level of math in your 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 Program Credits: 15

Total Program Credits: 60-61

RADIATION THERAPY

Diagnostic Imaging and Therapy: Radiation Therapy, AS

Information about the Diagnostic Imaging and Therapy Programs

A Radiation Therapist delivers radiation treatment as prescribed by a physician for the treatment of disease, primarily cancer. The Radiation Therapist will monitor patients' physical condition and response to treatment. The associate degree program in radiation therapy is based on twenty (20) months of full time study. The curriculum prepared students for employment as entry-level Radiation Therapist in hospitals and cancer centers. Upon successful completion of the program, students are eligible to take the American Registry of Radiologic Technologists (ARRT) board examination (Radiation Therapy). For more information, call the Program Director Gina Finn, at (203) 285-2392 or e-mail at (gfinn@gatewayct.edu). Please visit the website for additional information: https://www.gatewayct.edu/Allied-Health/Radiation-Therapy

Program 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. Clinical education takes place in hospitals and cancer centers. Students will rotate through all clinical settings during the length of the Program. The following clinical sites are: 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, and Greenwich Hospital, Greenwich, CT. Transportation and parking are the student's responsibility. The following pre-requisites must be completed with a grade of C or higher before applying to the Program:

* BIO* 211 - Anatomy and Physiology I
* BIO* 212 - Anatomy and Physiology II (within five years prior to application date)
* PHY* 111 - Physics for the Life Sciences

* Attendance at one program specific information session within one year of application submission to the department

The Program is accredited by the Board of Governors for Higher Education and the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, (312)704-5300, www.jrcert.org; mail@jrcert.org.

Please click here for important information regarding: Becoming Connecticut State Community College

Mission Statement:

The mission of the Radiation Therapy program at Gateway Community College is to offer high-quality instruction to a diverse population of students in an environment conducive to learning. Through the use of advanced classroom and laboratory technology and various clinical internship experiences, we are committed to educating and preparing competent, entry-level radiation therapists who can provide high quality patient care to the healthcare community. Furthermore, the Program is dedicated to providing tools to support lifelong learning.

Program Goals and Student Learning Outcomes

Goal 1. Students will demonstrate skills in effective written and oral communication

Students will evaluate and assess daily the physiological responsiveness of each patient prior to treatment delivery utilizing effective oral communication.

Students will evaluate and assess daily the physiological and psychological responsiveness of each patient prior to treatment delivery utilizing effective written communication.

Goal 2. Students will demonstrate skills in effective critical thinking and problem solving in the principles and practices of Radiation Therapy.

Students will demonstrate the ability to evaluate and assess treatment delivery components to perform proper treatment procedures.

Students will demonstrate the ability to assess disease specific information and outcomes of the specific cancer.

Goal 3. Students will achieve personal and professional growth.

Students will evaluate and assess treatment delivery components within a healthcare team.

Students will maintain values congruent with the professional code of ethics and scope of practice while adhering to national, institutional and/or departmental standards, policies and procedures regarding treatment delivery and patient care.

Goal 4. Students will be clinically competent in the practice of Radiation Therapy.

Students will apply the principles and practices of radiation protection.

Students will demonstrate basic simulation skills.

Student Program Fees

The student is responsible for all fees associated with the following program requirements:

Textbooks	$1,500
Uniforms	$200
Toxicology Screening	$70
Background Check	$70
Dosimeters	variable
Castle Branch online health management systems	$35
ASRT Membership	variable
Transportation and associated costs	variable
Health care immunizations and titers	variable
BLS or CPR/AED	variable

These fees are approximate and subject to change. If a student takes a leave of absence from the program, they will need to cover additional program fees as needed.

Program Requirements

First Semester

(*NOTE:* **Required** *orientation sessions will be scheduled during the summer before entry into the program*.) (Practicum at affiliates Tuesday and Thursday)

ENG* 101 - Composition **3 credits**

MAT* 175 - College Algebra and Trigonometry **3 credits** or
MAT* 186 - Precalculus **4 credits**

RDT* 101 - Introduction to Radiation Therapy I **3 credits**
RDT* 111 - Clinical Practicum I **1 credits**
RST 200 - Cross Sectional Anatomy **3 credits**

Total Semester Credits: 13-14

Winter Intersession

(40 hrs./week at clinical affiliates)

RDT* 113 - Clinical Internship I **1 credits**

Total Semester Credits: 1

Second Semester

(Clinical Practicum at hospital Tuesday and Thursday)

ENG* 200 - Advanced Composition **3 credits**
PSY* 111 - General Psychology I **3 credits**
RDT* 102 - Radiation Therapy II **3 credits**
RDT* 112 - Clinical Practicum II **1 credits**
RST* 213 - Radiation Physics **3 credits**

Total Semester Credits: 13

Summer Session

(40 hrs./week at clinical affiliates Monday through Friday, May through July)

RDT* 126 - Clinical Internship II **3 credits**

Total Semester Credits: 3

Third Semester

(Practicum at affiliates Monday, Wednesday, and Friday)

RDT* 201 - Radiation Oncology I **3 credits**
RDT* 202 - Radiation Therapy III **3 credits**
RDT* 205 - Dosimetry and Computer Assisted Treatment Planning **3 credits**
RDT* 211 - Clinical Practicum III **2 credits**

Total Semester Credits: 11

Winter Intersession

(40 hrs./week at affiliates Monday through Friday)

RDT* 218 - Clinical Internship III **1 credits**

Total Semester Credits: 1

Fourth Semester

(Practicum at affiliates Monday, Wednesday, and Friday)

RDT* 203 - Radiation Oncology II **3 credits**
RDT* 204 - Radiation Therapy IV **3 credits**
RDT* 212 - Clinical Practicum IV **2 credits**
RDT* 222 - Radiobiology and Protection **3 credits**
RDT* 223 - Radiation Physics II **3 credits**
RDT* 224 - Radiation Therapy Senior Seminar **2 credits**

Total Semester Credits: 16

Total Program Credits: 70-71

(including program pre-requisites)

Total practicum at the clinical affiliates, including Clinical Internships I, II, and III, is approximately 2,000 hours.

RADIOGRAPHY

Diagnostic Imaging and Therapy: Radiography, AS

The Associate Degree program in Radiography prepares students for employment as entry-level radiographers in hospitals, outpatient facilities, medical offices, mobile imaging services, research and other imaging related employment opportunities. Upon completion of the program, the student will be eligible to apply to take the certifying board examination administered by the American Registry of Radiologic Technology (Radiography).

The full-time, day program requires approximately twenty (20) months of didactic and clinical study. 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. Students will be required to complete at least three evening rotations while in the Program. Students are assigned to a clinical practicum at the following education sites:

Griffin Hospital	Division Street	Derby
Griffin Imaging & Diagnostics Center	Ivy Brook Road	Shelton
Yale New Haven Health System		
Bridgeport Hospital	Grant Street	Bridgeport
New Haven-Pediatric Specialty Center	Long Wharf Drive	New Haven
Yale New Haven Health Park Avenue Medical Center	Park Avenue	Trumbull
Yale New Haven Hospital	York Street	New Haven
Yale New Haven Hospital Spine Center	Long Wharf Drive	New Haven
Yale New Haven Hospital - St. Raphael's Campus	Chapel Street	New Haven
Yale Orthopaedics of Guilford	Boston Post Road	Guilford
Yale Orthopaedics of Milford	Wellington Road	Milford
VA New England Health Care System West Haven Campus	Campbell Avenue	West Haven

Newly admitted students are required to attend all program and hospital orientations held during the summer before the fall semester that they are scheduled to begin the program. In addition, students are required to pass the Patient Care Orientation with a grade of 75 or higher in order to continue in the Program. For more information, call the Assistant Director of Admissions, Mary Beth Banks at (203) 285-2388 or e-mail at mbanks@gatewayct.edu or the Program Coordinator, Julie Austin, at (203) 285-2382 or e-mail at jaustin@gatewayct.edu). Please see the Diagnostic Imaging and Therapy Programs webpage for more information about the admissions process, https://www.gatewayct.edu/Allied-Health/Radiography

The following pre-requisites must be completed with a grade of C or higher before applying to the Program:

    BIO* 211 - Anatomy and Physiology I
    BIO* 212 - Anatomy and Physiology II (within five years prior of application date)

The program is accredited by the Board of Governors for Higher Education and the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, (312) 704- 5300, www.jrcert.org; mail@jrcert.org.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Mission Statement

The mission of the Radiography program at Gateway Community College is to offer high quality instruction to a diverse population of students in an environment conducive to learning. Through the use of advanced classroom and laboratory technology and various clinical internship experiences, we are committed to educating and preparing competent, entry-level technologists who can provide high quality imaging and patient care to members of the community. Furthermore, the program is dedicated to providing tools to support life-long learning.

Program Goals and Student Learning Outcomes

1. Students will demonstrate effective oral and written communication skills

1.1 Students will use appropriate oral communication to accurately convey their purpose and message to a wide variety of audiences in the healthcare setting.

1.2 Students will use appropriate written communication to accurately convey their purpose and message to a wide variety of audiences in the healthcare setting.

2. Students will demonstrate skills in critical thinking and problem solving in the principles and practices of Radiography

2.1 Students will make appropriate positioning modifications and select appropriate technical factors based on patient assessment.

2.2 Students will critique radiographic images for diagnostic quality.

3. Students will demonstrate clinical competence in the practice of Radiography

3.1 Students will apply appropriate principles and practices of radiation protection.

3.2 Graduates will function as entry-level technologists in the healthcare setting.

4. Students will evaluate the importance of professional growth and development

4.1 Students will demonstrate professional integrity.

4.2 Graduates will participate in professional development activities with local, state or national societies.

Program Fees

Students are responsible for all fees associated with the following Program requirements:

Textbooks	$1,000
Uniforms	$200
Clinical Markers	$30
Toxicology Screening	$70
Background check	$70

Trajecsys online clinical documentation system	$150
Castle Branch online health management system	$35
Radiation Monitoring Badge	$55
Transportation and associated costs	Variable
Health care immunizations and titers	Variable
BLS or CPR/AED	Variable

These fees are approximate and subject to change. If a student takes a leave of absence from the program, they will need to cover additional program fees as needed.

Program Requirements

First Year (*NOTE:* **Required** *orientation sessions will be scheduled during the summer before entry into the program.*)

Program Requirements

First Semester

Please note: Clinical practicum will be held at the clinical affiliates on Tuesdays and Thursdays from 8a-4p or 4p-10p as assigned.

> ENG* 101 - Composition **3 credits**
> MAT* 172 - College Algebra **3 credits**
> RAD* 104 - Introduction to Radiography **3 credits**
> RAD* 105 - Radiographic Anatomy and Procedures I **3 credits**
> RAD* 125 - Radiographic Imaging I **3 credits**
> RAD* 193 - Clinical Practicum I **2 credits**

Total Semester Credits: 17

Winter Intersession

Please note: Clinical practicum will be held at the clinical affiliates Monday through Friday from 8a - 4p or 4p - 10p as assigned.

> RAD* 187 - Clinical Internship I **0.5 credits**

Total Semester Credits: .5

Second Semester

(Clinical practicum held at clinical affiliates Tuesdays and Thursdays)

ENG* 102 - Literature and Composition **3 credits** or
ENG* 200 - Advanced Composition **3 credits**
RAD* 116 - Physics in Radiography **3 credits**
RAD* 126 - Radiographic Imaging II **2 credits**
RAD* 194 - Clinical Practicum II **2 credits**
RAD* 204 - Radiographic Anatomy and Procedures II **3 credits**

Total Semester Credits: 13

Summer Session

Please note: Clinical practicum will be held at the clinical affiliates Monday through Friday from 8a - 4p or 4p -10p as assigned for ten weeks.

RAD* 188 - Clinical Internship II **4 credits**

Total Semester Credits: 4

Third Semester

Please note: Clinical practicum will be held at the clinical affiliates Mondays and Wednesdays from 8a - 4p or 4p - 10p as assigned.

RAD* 136 - Radiographic Imaging III **3 credits**
RAD* 196 - Radiographic Anatomy and Procedures III **3 credits**
RAD* 203 - Principles of Radiographic Exposure I **3 credits**
RAD* 222 - Radiobiology and Protection **3 credits**
RAD* 291 - Clinical Practicum III **3 credits**

Total Semester Credits: 15

Winter Intersession

Please note: Clinical practicum will be held at the clinical affiliates Monday through Friday from 8a - 4p or 4p - 10p as assigned.

RAD* 286 - Clinical Internship III **0.5 credits**

Total Semester Credits: .5

Fourth Semester

Please note: Clinical practicum will be held at the clinical affiliates Mondays, Wednesday, and Fridays from 8a - 4p or 4p - 10p as assigned.

RAD* 206 - Quality Assurance **3 credits**
RAD* 215 - Radiographic Pathology **3 credits**
RAD* 218 - Senior Seminar **3 credits**
RAD* 292 - Clinical Practicum IV **3 credits**
PSY* 111 - General Psychology I **3 credits**

Total Semester Credits: 15

Total Program Credits: 65

(including program pre-requisites)

RAILROAD ENGINEERING TECHNOLOGY

Railroad Engineering Technology, 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.

The 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. For more information on either program, call Eric Flynn (203) 285-2371 or e-mail at eflynn@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Railroad Practicum Additional Information

    Practicum experiences may be assigned during daytime, evening or weekend hours.
    Practicum assignments in all courses 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. Students are responsible for arranging their own transportation to and from assigned clinical sites. Practicum experiences may be assigned during daytime, evening, or weekend hours. Assignment of practicum sites is at the discretion of the railroad engineering technology faculty. Practicum sites could be within an hour radius of the college, and may require a mandatory parking fee.

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.

If you cannot participate in a practicum at an assigned facility, you may not be able to complete the objectives of the course and of the program. Specific situations are reviewed by college personnel.

Program 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
Electromechanical 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

Signaling & Communications Option:

Demonstrate a basic understanding of the operation of rail line and 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

Electromechanical Option

Suggested Course Sequence

First Semester

CET* 116 - Computer Applications for Technology **3 credits**
EET* 103 - Fundamentals of Electricity **4 credits**
RET* 101 - History of Railroading **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 115 - Mathematics for Science and Technology **3 credits**
Choose one course in Gen Ed - CALT: Critical Analysis/Logical Thinking **3 credits**

Total Semester Credits: 19

Second Semester

EET* 110 - Electric Circuits I **4 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
PHY* 109 - Fundamentals of Applied Physics **4 credits** (or higher)
RET* 110 - Careers in the Railroad **2 credits**
RET* 120 - Railroad Rules, Regulations, Standards & Practices **3 credits**

Total Semester Credits: 16

Third Semester

MEC* 234 - Electromechanical Controls **4 credits**
RET* 220 - Safety in the Railroad Workplace **3 credits**
RET* 230 - Reading and Interpreting Railroad Diagrams **2 credits**
RET* 240 - Railroad Pneumatics and Hydraulic Controls **4 credits**
RET* 270 - Practicum in Passenger Railroad Technology **1 credits**
COM* 173 - Public Speaking **3 credits**

Total Semester Credits: 17

Fourth Semester

ECN* 101 - Macroeconomics **3 credits**
RET* 242 - Railroad HVAC Systems **4 credits**

RET* 244 - Railroad Electro-mechanical Troubleshooting **4 credits**
Restricted (Elective) (CET* courses only) **4 credits**

Total Semester Credits: 15

Total Program Credits: 67

Railroad Engineering Technology: Signaling & Communications Option, AS

Suggested Course Sequence

First Semester

CET* 116 - Computer Applications for Technology **3 credits**
EET* 103 - Fundamentals of Electricity **4 credits**
RET* 101 - History of Railroading **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 115 - Mathematics for Science and Technology **3 credits** (or higher)
Choose one course in Gen Ed - CALT: Critical Analysis/Logical Thinking **3 credits**

Total Semester Credits: 19

Second Semester

EET* 110 - Electric Circuits I **4 credits**
ENG* 102 - Literature and Composition **3 credits**
    or
ENG* 200 - Advanced Composition **3 credits**
PHY* 109 - Fundamentals of Applied Physics **4 credits** (or higher)
RET* 110 - Careers in the Railroad **2 credits**
RET* 120 - Railroad Rules, Regulations, Standards & Practices **3 credits**

Total Semester Credits: 16

Third Semester

MEC* 234 - Electromechanical Controls **4 credits**
RET* 220 - Safety in the Railroad Workplace **3 credits**
RET* 250 - Railroad Signaling & Switching **4 credits**
RET* 270 - Practicum in Passenger Railroad Technology **1 credits**
COM* 173 - Public Speaking **3 credits**

Total Semester Credits: 15

Fourth Semester

RET* 252 - Railroad Communications **4 credits**
RET* 254 - Railroad Maintenance, Troubleshooting and Repair **4 credits**
RET* 271 - Practicum in Passenger Railroad Technology **1 credits**
Restricted (Elective) (CET* courses only) **4 credits**
ECN* 101 - Macroeconomics **3 credits**

Total Semester Credits: 16

Total Program Credits: 66

SCIENCE

Natural Sciences and Mathematics, AS

The Natural Sciences and Mathematics program prepares qualified students to work at research facilities as laboratory or research assistants and/or continue their studies in the sciences at a four-year institution. For more information, contact Mark Bruno at (203) 285-2353 or e-mail mbruno@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Program 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, trigonometry, and calculus
Incorporate an interdisciplinary approach to investigating scientific problems

Suggested Course Sequence

First Semester

CHE* 121 - General Chemistry I **4 credits**
COM* 173 - Public Speaking **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 172 - College Algebra **3 credits**
　　　or
MAT* 175 - College Algebra and Trigonometry **3 credits**
Choose one course in Social Phenomena (Gen Ed - SP: Social Phenomena/Knowledge/Understanding) **3 credits**

Total Semester Credits: 16

Second Semester

CHE* 122 - General Chemistry II **4 credits**
ENG* 102 - Literature and Composition **3 credits**
　　　or
ENG* 200 - Advanced Composition **3 credits**
MAT* 186 - Precalculus **4 credits**
Math or Science (Elective) **4 credits**

Total Semester Credits: 15

Third Semester

BIO* 121 - General Biology I **4 credits**
　　　or
BIO* 211 - Anatomy and Physiology I **4 credits**

MAT* 254 - Calculus I **4 credits**
PHY* 121 - General Physics I **4 credits**
Math or Science (Elective) **3 credits**

Total Semester Credits: 15

Fourth Semester

BIO* 122 - General Biology II **4 credits**
   or
BIO* 212 - Anatomy and Physiology II **4 credits**
PHL* 111 - Ethics **3 credits**
PHY* 122 - General Physics II **4 credits**
Math or Science (Elective) **3 credits**

Total Semester Credits: 14

Total Program Credits: 60

SOCIOLOGY

CSCU Pathway Transfer Degree: Sociology Studies, A.A.

Please contact a campus advisor for this program:

Professor Jonah Cohen JCohen@gatewayct.edu

With this degree, you will be able to transfer to the following majors:

At Central Connecticut State University	Sociology, B.A.
At Eastern Connecticut State University	Sociology, B.A.
At Southern Connecticut State University	Sociology, B.A.
At Western Connecticut State University	Anthropology/Sociology, B.A.
At Charter Oak State College	Sociology, B.A.

Here is the recommended course of study for the Sociology Studies Transfer Degree. 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.

Suggested Course Sequence

First Semester

ENG* 101 - Composition **3 credits**
SOC* 101 - Principles of Sociology **3 credits**
Choose one course in Historical Knowledge and Understanding **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**
Unrestricted Elective **3 credits**

Total Semester Credits: 15

Second Semester

Choose one course in Quantitative Reasoning **3 credits** (CCSU recommends MAT 167)
Choose one course in Written Communication II **3 credits**
Choose one course in Scientific Reasoning **3-4 credits**
SOC Elective (you may take any SOC courses for these electives, but two of them must be at the 2xx level)
Unrestricted Elective*

Total Semester Credits: 15-16

Third Semester

Begin the **transfer application process** in your third semester **or** the semester before you plan to graduate. FAFSA becomes available October 1.

Choose one course in Scientific Knowledge and Understanding **3-4 credits**
Choose one course in Social Phenomena **3 credits**
Choose one additional General Education I - Creativity **3 credits**
SOC Elective (you may take any SOC courses for these electives, but two of them must be at the 2xx level) **3 credits**
Unrestricted Elective **3 credits**

Total Semester Credits: 15-16

Fourth Semester

During your last semester at GCC, don't forget to apply for graduation!

Choose one course in Critical Analysis/Logical Thinking **3 credits**
Choose one course in Oral Communications **3 credits**
Choose one course in Additional General Education II - Global Knowledge **3 credits**
SOC Elective (you may take any SOC courses for this elective, but two of them must be at the 2xx level) **3 credits**
Unrestricted Elective **3 credits**

Total Program Credits: 15

Total Program Credits: 60-61

SURGICAL TECHNOLOGY

Surgical Technology, A.S.

Surgical Technology

The Surgical Technology Program at Gateway Community College has a site visit scheduled for pursuing initial accreditation by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org). This step in the process is neither a status of accreditation nor a guarantee that acceditation will be granted. *(Statement added 11/26/19)*. (Update: 11/3/20 - The Surgical Technology program at Gateway Community College has undergone and successfully completed Accreditation by the Commission on Accreditation of Allied Health Eucation Programs).

(Crossed out text below done on 11/26/19)

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. Once students successfully complete the requirements of the two-year Associate of Science Degree Program, they wIll be eligible to take the National Board of Surgical Technology and Surgical Assisting (NBSTSA) examination. A passing score on this exam will grant the student status as a Certified Surgical Technologist, employable in all 50 states.

Please click here for important information regarding: Becoming Connecticut State Community College

Program Goal Statement

The Surgical Technology Program prepares students to be competent, entry-level Surgical Technologists in the cognitive, psychomotor, and affective learning domains. Graduates will qualify to become certified through the National Board of Surgical Technology and Surgical Assisting (NBSTSA) examination.

Program Total - $10,413* (tuition and clinical program fee)

* Cost does not include student activity fees, textbooks, uniforms or other materials. Financial Aid may be available to those who qualify. Cost is subject to change.

Surgical Technology Program Goals

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.

Suggested Course Sequence

First Semester

BIO* 115 - Human Biology **4 credits**
CSA* 105 - Introduction to Software Applications **3 credits**
ENG* 101 - Composition **3 credits**
HIM* 101 - Medical Terminology **3 credits**
MAT* 109 - Quantitative Literacy **3 credits** or higher

Total Semester Credits: 16

Second Semester

ENG* 102 - Literature and Composition **3 credits**
> or
ENG* 200 - Advanced Composition **3 credits**
> or
ENG* 202 - Technical Writing **3 credits**
SUR* 109 - Microbiology for Surgical Technologists **2 credits**
SUR* 110 - Operating Room Technique **4 credits**
SUR* 111 - Operating Room Skills Seminar **4 credits**
Choose one course in Social Phenomena **3 credits**

Total Semester Credits: 16

Third Semester

PSY* 111 - General Psychology I **3 credits**
SUR* 211 - Clinical Surgical Experience I **6 credits**
SUR* 213 - Surgical Procedures I **3 credits**
SUR* 215 - Surgical Technology Pharmacology **3 credits**

Total Semester Credits: 15

Fourth Semester

SUR* 212 - Clinical Surgical Experience II **6 credits**
SUR* 214 - Surgical Procedures II **3 credits**
SUR* 250 - Advanced Seminar for Surgical Technologist **3 credits**
Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 15

Total Program Credits: 62

TECHNOLOGY

Aviation Maintenance Technology, AS

To be eligible for an Associate in Science degree in the 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 32 credits of college instruction must be completed for the Associate in Science degree. To find an FAA school, please visit http://av-info.faa.gov.

Program Outcomes

Upon successful completion of all program requirements, the student should be bale 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
Use current reference and training materials from accepted industry publications and standards 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.

For more information on this program, contact the Department Chairperson, Eric Flynn at (203) 285-2371 or EFlynn@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

First Semester

CET* 116 - Computer Applications for Technology **3 credits**
ENG* 101 - Composition **3 credits**
MAT* 137 - Intermediate Algebra **3 credits** (or higher)
PHY* 121 - General Physics I **4 credits**
Choose one course in Aesthetic Dimensions **3 credits**

Total Semester Credits: 16

Second Semester

COM* 173 - Public Speaking **3 credits**
MAT* 175 - College Algebra and Trigonometry **3 credits**
PHY* 122 - General Physics II **4 credits**
Choose one course in Written Communication II **3 credits**
Choose one course in Social Phenomena **3 credits**

Total Semester Credits: 16

Active FAA License

An active FAA Airframe and Powerplant Mechanics License is required for entry to this program **30 credits**

Total Program Credits: 62

WATER MANAGEMENT TECHNOLOGY

Water Management Certificate

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.

Certification by the CT Department of Public Health Drinking Water Section is required to operate water treatment and distribution facilities. Gateway's Water Management Certificate program offers a sequence of courses to prepare students for the Connecticut Department of Health certification examinations. 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.

For more information, contact Wesley Winterbottom at (203) 285-2354 or e-mail at wwinterbottom@gatewayct.edu.

Please click here for important information regarding: Becoming Connecticut State Community College

Suggested Course Sequence

First Semester

CWM* 106 - Introduction to Utility Management **3 credits**
WMT* 101 - Water Treatment and Distribution **6 credits**

Total Semester Credits: 9

Second Semester

ENV* 110 - Environmental Regulations **3 credits**
WMT* 102 - Special Topics in Water Treatment **3 credits** +
    or
WMT* 103 - Special Topics in Water Distribution **3 credits**

Total Semester Credits: 6

Total Program Credits: 15

+ If both the CT DPH Class IV Water Treatment and Class III Water Distribution Operator-in-Training Examinations are to be taken, it is highly recommended that both of these classes be taken.

COURSES & DESCRIPTIONS

DAN* 141 - Dance: Mind, Body, Spirit

3 credits Introduces the processes and materials involved in creating dances. It also requires students to discuss and analyze their own original choreography as well as that of other students. Spontaneity and trust in one's intuitive movement response is encouraged through structures that explore the creative process in dance. An appreciation of dance history and the pioneering spirit of modern dance giants will be studied.

HDV 100 - Orientation to College

1 credits Orients a new student to Gateway Community College. Addresses personal development topics (such as stress management and career planning) and study skills (including note taking and preparing for tests). Provides students with the skills and strategies to solve problems they are likely to encounter when they enter college.

HDV 101 - Survival at College

1 credits Introduces students to strategies and techniques for setting and accomplishing academic, personal or professional goals. Focuses on how to navigate expectations and projections that interfere with achieving objectives even when faced with obstacles. Students learn how their thoughts, feelings and behavior when directed toward creating positive experiences, can support their success and alter their lives' course.

HDV 103 - Career Planning

1 credits Explores career opportunities within a small group. Students will learn about the process of career decision making, including an examination of values and interests and the use of information about various occupations.

HDV 104 - Strategies for Academic Success

2 credits Offers academic support to students having difficulty successfully completing college level work. Enhances students' capabilities through group work and individualized attention to identified academic deficiencies. Students will be strongly supported by Student Services personnel. Credit does not count toward meeting degree requirements.

HDV 105 - Learning Strategies

2 credits Improves the study skills of beginning students to help them successfully complete college level work. Stresses learning strategies, including goal setting, time management, productive study habits, note-taking and test-taking techniques. Emphasizes memory and concentration enhancements as well as promoting active listening behaviors. Placement: Results of ACCUPLACER. Credit does not count toward meeting degree requirements.

HUM* 130 - Philosophy and Practice of Yoga

3 credits Investigates the philosophy of yoga, its origins, and its place in our contemporary lives. Teaches the different aspects of yoga and areas of study that encompass the fundamental principles of the discipline. Teaches basic poses as well as meditation and breathing techniques.

IDS 106 - Critical Thinking - Business

CALT: Critical Analysis/Logical Thinking

3 credits This thematic Business course meets the Critical Analysis and Logical Thinking competency of the TAP common core. Introduces diverse academic content emphasizing the acquisition of learning strategies to support students in college-level study, while increasing their understanding of community engagement and life-long learning. Focuses on developing creative and critical thinking skills, improving written and oral communication, setting personal and academic goals, and becoming engaged members of the community. Seminars explore topics related to the meanings of higher education through a focus on the process of learning how to evaluate arguments, draw reasoned inferences, and make decisions synthesizing information across the disciplines. This will be accomplished through in-class seminars, workshops, and service-learning initiatives. In addition, students will develop a comprehensive academic and career development plan leading to graduation.

IDS 112 - Career Seminar & Internship

CALT: Critical Analysis/Logical Thinking

3 credits Designed to promote career exploration and academic program selection by introducing general studies students to career and major options. Will introduce students to industry-specific expectations and experiences both in and out of the classroom integrating coursework and practical applications. Provides on the job training and internship experiences in a variety of workplace environments. Students are required to work a total of 80 hours during 8 weeks of the 15 weeks in the semester.
Prerequisite(s): ENG* 101 and completion of at least 15 hours of college level courses or instructor's permission.

IDS 295 - Service Learning Internship

3 credits Provides an opportunity for students to gain experience in business, industry, government, or not-for-profit organizations. Students will devote a minimum of three hours per week per credit working at the internship organization during the academic semester. Provides students an opportunity to serve the community, gain practical work experience, and develop a deeper understanding of the social needs of our community.
Prerequisite(s): 30 credits; minimum GAP of 2.5; and written permission from their Program Coordinator, Department Chairperson, or Division Director. Students will be interviewed prior to taking this course. Instructor's permission is required for registration.

QUA* 114 - Principles of Quality Control

3 credits Introduces the terminology, principles, and procedures of quality control and quality assurance. Investigates specific techniques and procedures used in quality control and quality assurance. Topics include new design control, incoming material control, product control, and special process studies.

THR* 110 - Acting I

3 credits Introduces the art, practice, theories, and history of acting. Both experienced and non-actors will benefit from this course through the study of the history of acting, practical workshops, in-class performances as well as reading, research, and writing about the discipline of acting.

❖❖❖ 298* 298 - Special Topics Courses

1–6 credits Provides students the opportunity to enroll in courses that address a specific need or demand within a particular discipline. For specific course content, please consult the semester course schedule. Special Topics courses may not be used to meet program requirements; however, they do carry elective credit in the specific discipline or as a general elective. A Special Topics course may or may not be transferable to other institutions. Students should seek the consent of their faculty advisor prior to selecting a Special Topics course.
Prerequisite(s): Please consult semester course schedule.

ACCOUNTING

ACC* 100 - Basic Accounting

3 credits Covers the fundamental concepts of accounting. Provides an overview of key topics in financial and managerial accounting. Examines the use of accounting reports by business managers, investors, creditors, and other stakeholders. Topics include financial statements, the accounting cycle, accounting for service businesses, merchandising operations, cash and payroll, internal controls and cost behavior. Supplemented with software applications.
Notes: This course is not open to students who have completed ACC* 113 or higher with a grade of C- or better.

ACC* 113 - Principles of Financial Accounting I

3 credits Examines the structure of accounting and the accounting equation. Studies the basic essentials which include journalizing and posting transactions; preparing the trial balance; preparing financial statements and journalizing and posting adjusting and closing entries. Introduces the basic concepts of asset and liability measurement, both current and long-term, and revenue determination by examination of specific accounts. Corporate organizations and retained earning accounts are studied.
Prerequisite(s): Eligibility for MAT* 109

ACC* 117 - Principles of Managerial Accounting

3 credits Presents basic concepts and practice of accounting's role in providing information to managers to assist in planning, control, and decision making. Topics include cost accounting systems, cost behavior relationships, analysis for managerial decisions, and the budget process.
Prerequisite(s): ACC* 113 with a grade of C or better

ACC* 125 - Accounting Computer Application I
3 credits Use accounting software to complete the accounting cycle. Topics include cash receipts, cash disbursements, accounts receivable, accounts payable, and payroll taxes. Various software packages will be presented, but emphasis will be on QuickBooks.
Prerequisite(s): ACC* 113 or BOT* 165.

ACC* 241 - Federal Taxes I
3 credits Interprets and applies laws in preparing federal income tax returns for individuals.
Prerequisite(s): ACC* 113.

ALLIED HEALTH

HIM* 101 - Medical Terminology
3 credits Introduces the language of medicine. Topics include basic word structure, prefixes, roots, suffixes, and terms pertaining to the body, including singular/plural forms. Also presents terminology related to body systems (cardiovascular/ circulatory, digestive, female reproductive, integumentary, musculoskeletal, respiratory, and urogenital). Covers body system units, including anatomic, diagnostic, symptomatic, surgical, and eponymic terms, plus standard abbreviations and acronyms. Emphasizes defining and spelling elements and terms.
Prerequisite(s): Eligible for ENG* 101 or ESL* 161 or ESL* 169 with a grade of C or better. Notes: (Program has not been offered in the past two years)

HLT* 103 - Investigations in Health Careers
3 credits Designed to assist students in meeting the expectations of a health care curriculum and career. Students will become familiar with rigors of higher education and the specific skills needed to maximize their opportunity for academic and clinical success. Will include a comprehensive overview of the duties and responsibilities associated with clinical competency. Interdisciplinary learning strategies, correlating clinical and didactic education, life management skills, work ethics and critical thinking skills necessary for all health providers will be emphasized.

HLT* 107 - Methods of Learning in a Clinical Curriculum
3 credits Designed to assist traditional and non-traditional first year college students to meet the expectations of a curriculum in health related fields. The intent is to familiarize the students with the rigors of higher education and to provide specific skills which will maximize the students' opportunity for academic and clinical success. The course will include a comprehensive overview of the duties and responsibilities associated with clinical education and clinical competency. Interdisciplinary learning strategies, correlating clinical and didactic education, life management skills, work ethics and critical thinking skills so critical for all health care providers will be emphasized. Participation in field work and classroom visits are required.

SUR* 109 - Microbiology for Surgical Technologists
2 credits Gives a broad overview of general microbiology and the clinical microbiology most necessary for the surgical technologist to understand. Emphasizes the importance of sterile technique and infection control in the operating room while covering basic information such as bacterial staining, microscopy, how bacteria can be cultivated and identified in the laboratory, the most significant human pathogens and how the immune system responds to them. Lecture Hours: 2
Prerequisite(s): CSA* 105, ENG* 101, HIM* 101, MAT* 109 (or higher) all with a grade of C or higher; BIO* 115 with a grade of C+ or higher; ENG* 102 or ENG* 202 (pre- or co-req), Social Phenomena elective. **Corequisite(s):** SUR* 110, SUR* 111, and ENG* 102 or ENG* 202

SUR* 110 - Operating Room Technique

4 credits A theoretical introduction to the roles and responsibilities of the surgical technologist, the health care team, and the surgical environment. Teaches the basic principles of aseptic technique, fundamentals of surgical technology, and patient care concepts. Incorporates surgical scrub, gowning, gloving, case preparation, patient care and safety. Prepares students for entry level into the surgical environment and basic surgical procedures. Lecture Hours: 4
Prerequisite(s): CSA* 105, ENG* 101, HIM* 101, MAT* 109 (or higher) all with a grade of C or higher; BIO* 115 with a grade of C+ or higher; ENG* 102 or ENG* 202, Social Phenomena elective (pre- or co-reqs). **Corequisite(s):** SUR* 109, SUR* 111, and ENG* 102 or ENG* 202

SUR* 111 - Operating Room Skills Seminar

4 credits Provides the students with the opportunity to practice with supervision, skills, techniques, standards, and principles in operating room technique. Prepares students for the clinical experience by teaching them the care and handling of surgical supplies, instruments, suture materials, and surgical drapes using hands on skills, simulation, and mock surgery for laparotomy and laparoscopic procedures. This course includes a 5-week clinical rotation. After passing the seminar skills competencies, students will have a clinical rotation as a member of the surgical team under direct supervision. This gives the student the opportunity to build on didactic and clinical skills learned in the seminar. Focuses on minimally complex and specialty surgical procedures that take place in a clinical facility. This rotation is 24 hours/week over 15 weeks of the course. Lab Hours: 8
Prerequisite(s): CSA* 105, ENG* 101, HIM* 101, MAT* 109 (or higher) all with a grade of C or higher; BIO* 115 with a grade of C+ or higher; ENG* 102 or ENG* 202 (pre- or co-reqs.); and one Social Phenomena elective. **Corequisite(s):** SUR* 109, SUR* 110 and ENG* 102 or ENG* 202

ANTHROPOLOGY

ANT* 105 - Introduction to Cultural Anthropology

SP: Social Phenomena/Knowledge and Understanding
3 credits The student of people's interactions in communities, behaviors, beliefs, and institutions. It examines theories of how cultures are created and searches for deeply embedded patterns of meanings cross cultures. Compares and studies our own patterns and behaviors in an effort to gain a better understanding of how local and global communities interact.
Prerequisite(s): Eligibility for ENG* 101.

ART & GRAPHICS

ART* 101 - Art History I

AD: Aesthetic Dimension of Humankind
3 credits Surveys art and architecture from prehistoric times through the Middle Ages. Presents art as a fundamental aspect of human existence during a wide range of periods and cultures. Includes the art of indigenous cultures in Africa and the Americas, as well as the art of the ancient world. Emphasizes history and formal appreciation of art through the use of text, slides, reproductions, and original works. Requires museum trips.

ART* 102 - Art History II

AD: Aesthetic Dimension of Humankind
3 credits Surveys art and architecture from the Renaissance to the late nineteenth century. Surveys the Renaissance in Italy and Northern Europe and the Baroque, Rococo, Romantic, Impressionist, and Post-Impressionist periods. Emphasizes history and formal appreciation of art through the use of text, slides, reproductions, and original works. Requires museum trips.

ART* 103 - Art History III

3 credits Surveys modern and contemporary art and architecture from the mid nineteenth century to the present. Emphasizes history, issues, and formal appreciation of art through the use of text, slides, reproductions, and original works. Requires museum and gallery visits.
Prerequisite(s): ART* 101 or ART* 102.

ART* 109 - Color Theory
3 credits Studies the interaction of color. Works with collage and paints to formulate presentations ranging from fundamental problem solving to individual expression. Emphasizes the use of color and its properties. Requires field trips and outside assignments. (6 studio hours)

ART* 111 - Drawing I
3 credits Introduces traditional drawing materials and techniques and examines drawing from life, composition, and design. Students work with a variety of subjects, including still life, interior, landscape, and human form. Requires sketchbook, outside assignments, and museum visits. (6 studio hours)

ART* 112 - Drawing II
3 credits Expands the fundamentals of drawing acquired in Drawing I. Focuses on the structure and development of drawing as a form of artistic expression. Includes figure drawing, sketchbook, outside assignments, and museum trips. (6 studio hours)
Prerequisite(s): ART* 111 or instructor's permission.

ART* 113 - Figure Drawing I
3 credits Applies the knowledge acquired in Drawing I and II. Concentrates on traditional and contemporary approaches to the representation of the figure. Focuses on the costumed and nude figure as well as portraiture. Requires outside assignments and museum trips. (6 studio hours)
Prerequisite(s): ART* 111 or instructor's permission.

ART* 121 - Two Dimensional Design
3 credits Investigates elements of art and principles of two-dimensional design and the nature of design. Explores space, shape, color, line, texture, and value, beginning with simple relationships and building toward more complex systems of composition. Requires outside assignments and museum visits. (6 studio hours)

ART* 122 - Three Dimensional Design
3 credits Investigates the elements and principles of three-dimensional design, emphasizing forms and spatial organization. Studies the various types of three-dimensional forms found in both art and nature. Explores the use of various materials, tools, and techniques used to create three-dimensional forms. Requires outside assignments and museum visits. (6 studio hours)

ART* 131 - Sculpture I
3 credits Introduces principles and materials that facilitate student response to three-dimensional forms. Stresses the concepts of modeling, carving, construction, portrait sculpture, and casting. Requires museum and gallery visits. (6 studio hours)

ART* 132 - Sculpture II
3 credits Sculpture II builds on Sculpture I by presenting more challenging work. Applies knowledge acquired in Sculpture I and concentrates on traditional approaches to the representation of the human form. Requires outside assignments and museum visits. (6 studio hours)
Prerequisite(s): ART* 131 or instructor's permission.

ART* 141 - Photography I
3 credits Explores the fundamentals of still photography and processing, basic camera techniques, and dark room procedures. The course emphasizes examining photographic images and making pictures. Picture-making assignments cover camera operation and stress making deliberate artistic choices during picture taking. Most picture taking will be done outside of class time. Lab instruction will include black and white darkroom techniques, workshops, and demonstrations. Students are required to supply their own 35 mm SLR camera. (6 studio hours)

ART* 142 - Photography II
3 credits Builds on skills learned in Photography I by applying those skills to more challenging work. This is primarily a black and white photography course with an introduction to color. Combines picture-taking projects and darkroom printing techniques

with the study of artistic photography. Includes lectures with slides and text. Requires outside assignments. Students are required to supply their own 35 mm SLR camera. (6 studio hours)
Prerequisite(s): ART* 141 or instructor's permission.

ART* 151 - Painting I

3 credits Introduces basic oil painting methods and procedures. Emphasizes composition, paint handling, and color. Explores still life, interior scenes, and landscape in both group and individual projects. Includes study of master works from various periods. Requires outside assignments and museum visits.

ART* 152 - Painting II

3 credits Builds on knowledge acquired in Painting I. Presents more challenging work including the figure. Encourages the pursuit of individual expression by stressing a painting sequence that works toward a personal statement. (6 studio hours)
Prerequisite(s): ART* 151.

ART* 167 - Printmaking I

3 credits An introductory studio course in the methods and materials of printmaking: etching, woodblock printing, linoleum printing, collagraph, monotype, and photo-transfer. The basic elements of art will be articulated through these printmaking methods.
Prerequisite(s): ART* 111 and ART* 121.

ART* 176 - Digital Video Art I

3 credits Investigates digital video as an extension of the fine arts. Formal attributes which make up the language of video including time, sound, content, and composition will be investigated as tools of expression and devices for creating meaning. Basic production techniques such as story boarding, cinematography, lighting, and editing will be acquired through creative problem solving. Through both a survey of historical and contemporary video art and in responding to collective and individual assignments, students will become critically observant and sensitive to video as a time-based medium. Digital video art's relationship to fine arts as well as to other media is covered.

ART* 251 - Painting III

3 credits Applies knowledge acquired in Painting I and II. Concentrates on traditional and contemporary approaches to the representation of the figure. Focuses on the nude and costumed figure and portraiture. Requires outside assignments and museum visits. (6 studio hours)
Prerequisite(s): ART* 151 or instructor's permission.

ART* 261 - Web Design I

3 credits Introduces students to web design concepts using programs such as Adobe Photoshop, Illustrator, and Dreamweaver along with utilizing HTML coding and Macromedia. Students will dissect and investigate websites in order to gain knowledge and critical insight into the design of websites. (6 studio hours)
Prereq/Corequisite(s): GRA* 149.

ART* 293 - Internship in Art I

3 credits Provides students with the opportunity to gain "real-life" experience in Studio Art/Graphic Design. The student is required to work 120 hours during the semester. Hours will be arranged by mutual consent of the student and the supervisor.

GRA* 149 - Introduction to Adobe Creative Suite

3 credits Introduces the Adobe Creative Suite. Through lectures, demonstrations, exercises and projects, the students will learn technical skills and basic tools of digital art and design using Adobe Photoshop, Illustrator, and InDesign. Lab Hours: 6

GRA* 151 - Graphic Design I

3 credits Presents various problems in graphic design and typography. Explains the process of creation from rough layout to tight composition. Stresses creative and aesthetically successful solutions to graphic design problems. Lab Hours: 6
Prereq/Corequisite(s): GRA* 149

GRA* 231 - Digital Imaging (Photoshop)
3 credits Introduces and focuses on Adobe Photoshop and the manipulation of the still image in digital media. Through lectures, demonstrations, exercises, and real-world projects, students will learn how to alter and design images using the tools, functions, and libraries found in this Adobe Creative Suite program. Lab Hours: 6
Prereq/Corequisite(s): GRA* 149

GRA* 237 - Computer Graphics (Adobe Illustrator)
3 credits Introduces and focuses on Adobe Illustrator. Through lectures, demonstrations, exercises, and real-world projects, students will learn how to use this Adobe Creative Suite program to create special imagery and typographic effects and apply these skills to solving design problems in print advertising, consumer packaging and desktop publishing environments. Lab Hours: 6
Prereq/Corequisite(s): GRA* 149

GRA* 241 - Digital Page Design I (InDesign)
3 credits Through lectures, demonstrations, exercises, and real world projects, students will learn document construction, page layout and typography and will apply these techniques to solving design problems in electronic publishing environments. Lab Hours: 6
Prereq/Corequisite(s): GRA* 149

GRA* 252 - Graphic Design II
3 credits Builds on the skills developed in Graphic Design I, this course introduces more advanced production techniques and stresses more advanced design concepts. Lab Hours: 6
Prerequisite(s): GRA* 151.

GRA* 261 - Web Design I
3 credits Introduces students to web design. Using the programs in the Adobe Creative Suite as well as Dreamweaver, HTML coding and other programs, students will design and create their own website. Lab Hours: 6
Prereq/Corequisite(s): GRA* 149

AUTOMOTIVE - GENERAL (CARS)

AUT* 130 - Power Plant
3 credits Covers in both theory and practice, the automotive engine and its' systems. Students will gain the skills necessary to service and repair current automotive engines. Students will learn to diagnose engine problems and repair them properly. Lecture Hours: 2 Lab Hours: 3

AUT* 132 - Automotive Systems & Shop Practices
3 credits This course surveys all of the vehicle systems. Students will be introduced to safety and shop practices. Additional emphasis will be on the lube maintenance and vehicle inspection process. Lecture Hours: 2 Lab Hours: 3

AUT* 134 - Electrical/Electronic Systems
3 credits Covers in both theory and practice, automotive electrical and electronic systems. Students will study the most updated automotive electronic systems and become familiar with electrical circuits, alternators, starters, batteries, and electrical components. Theory, operation, diagnosis, and repair procedures will be covered. Emphasizes lecture and related laboratory experiences in the diagnosis and service of automotive electrical systems and their components. Lecture Hours: 2 Lab Hours: 3

AUT* 136 - Steering and Suspension Systems

3 credits Covers in both theory and practice, the diagnosis and repair of automotive steering and suspension systems including vehicle alignment. A comprehensive presentation of automotive wheel and tire covers and their repair will be examined. Theory, machines, operations, diagnosis, and repair procedures will be covered. Lecture Hours: 2 Lab Hours: 3

AUT* 138 - Braking Systems

3 credits Covers in both theory and practice, all automotive hydraulic braking systems. It covers all types of disc and drum brakes and repair procedures. Modern traction control and stability control systems will be explored. Theory, operation, diagnosis and repair procedures will be covered. Lecture Hours: 2 Lab Hours: 3

AUT* 159 - ASE Prep & Shop Practices

1 credits Presents all aspects of systems pertaining to the G1 and A5 ASE exam. Test taking skills that are tailored to the ASE test will be explored. Theory, operation, and study and practice evaluations will be taught. Course surveys all vehicle systems. Students will be introduced to safety and shop practices as well as lube maintenance and vehicle inspection process. Lecture Hours: 1 Lab Hours: 1

AUT* 160 - Internship I

1 credits Students participate in a fifteen-hour course to review basic automotive training and to complete all paper work for the ten-week summer dealer internship.
Prerequisite(s): Completion of Semester I courses.

AUT* 170 - Practicum I

4 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred hours of experience.

AUT* 226 - Service, Parts, Dealer Operations

CALT: Critical Analysis/Logical Thinking
3 credits Presents the overall operation of the service and parts departments. The skills developed in this class can be applied to enhance the knowledge base of the student who has the technical skills, but needs the larger industry focus to complete the well-rounded student. Students will prepare for the C1, P2, & P4 ASE exams.

AUT* 231 - Engine Management Systems

3 credits Covers in both theory and practice, basic performance and emissions theory and nomenclature, as well as the skills necessary to service and repair computerized automotive fuel and ignition systems. Theory, operation, diagnosis, and repair procedures will be covered. Lecture Hours: 2 Lab Hours: 3

AUT* 233 - Manual Drivetrain Systems

3 credits Covers in both theory and practice, proper procedures for the diagnosis and repair of automotive manual drive transmissions and transaxles. Places particular emphasis on clutches, drive (half) shafts, and universal joints, along with rear axle and four-wheel drive components. Theory, operation, diagnosis, and repair procedures will be covered. Lecture Hours: 2 Lab Hours: 3

AUT* 235 - Automatic Drivetrain Systems

3 credits Covers in both theory and practice, the transference of engine power through the transmission to the final drive units on both front and rear wheel drive cars. Includes maintenance and repair of automatic transmission, drive shaft assemblies and differentials. Transmission/transaxle mechanical, hydraulic and electrical operation. Service, overhaul, mechanical/electrical diagnosis procedures will be covered. Use and application of diagnostic equipment. Theory, operation, diagnosis, and repair procedures will be covered. Lecture Hours: 2 Lab Hours: 3

AUT* 237 - Climate Control & Restraint Systems

3 credits Presents in both theory and practice, the proper procedures for the diagnosis and repair of air conditioning systems, heating, and engine cooling systems, operating systems, and related controls. Also covers the diagnosis and repair of restraint components and systems. Theory, operation, diagnosis, and repair procedures will be covered. Lecture Hours: 2 Lab Hours: 3

AUT* 238 - Advanced Electrical Diagnosis & Performance Tuning

3 credits Covers advanced electrical theory, diagnosis, and repair. An overview of various hybrid systems will be presented. Investigation of high performance applications of automotive upgrades. Students will receive training theory, hands-on repair and diagnosis of modern hi-tech power plants and gasoline powered vehicles with an emphasis on performance. Lecture Hours: 2 Lab Hours: 3
Prerequisite(s): AUT* 134.

AUT* 270 - Practicum II

2 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred hours of experience.

AUT* 272 - Practicum III

3 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred hours of experience.

AUTOMOTIVE - GENERAL MOTORS (ASEP)

AUT* 110 - GM Engine Repair

3 credits Focuses on basic engine theory, nomenclature, and skills necessary to service and repair current model year General Motors engines. Upon completion of the course, students should be able to identify engine problems and make repairs to return an automobile to satisfactory operating condition. Lecture Hours: 1 Lab Hours: 4

AUT* 112 - GM Specifications

2 credits Includes the selection, use, and care of specialized shop tools and manuals. Describes the many manipulation skills needed in simple mechanical operation. The course is designed for students with no previous experience as well as for advanced students who desire further knowledge. Lab Hours: 4

AUT* 114 - GM Electrical Systems

3 credits Introduces GM ASEP program students to automotive electrical theory and repair in accordance with ASE standards. Presents content specified in the current GM dealership electrical curriculum. Includes content covered in ASE exam A6 Electrical/Electronic Systems. Lecture Hours: 2 Lab Hours: 3
Prerequisite(s): AUT* 112.

AUT* 116 - GM Suspension and Steering

3 credits Enables the student to study and understand the diagnosis and repair of General Motors steering and suspension systems, including wheel alignment. Provides a thorough knowledge of wheel and tire problems and repair. Lecture Hours: 1 Lab Hours: 4

AUT* 118 - GM Braking Systems

3 credits Introduces GM ASEP program students to automotive braking system theory and repair in accordance with ASE standards. Presents content specified in the current GM dealership brakes curriculum. Includes content covered in ASE exam A5 Brakes. Lecture Hours: 2 Lab Hours: 3
Prereq/Corequisite(s): AUT* 112.

AUT* 161 - GM Internship 1A

1 credits Students participate in three weeks of practical training at either a GM dealership or AC Delco repair facility during their freshman fall semester. Students will reinforce automotive skills and theory acquired during the freshman fall semester. All automotive students are required to attend an Internship Orientation session prior to starting their internship.

AUT* 162 - GM Internship 1B

1 credits Students participate in four weeks of practical training at either a GM dealership or AC Delco repair facility during their freshman winter intersession. Students will reinforce automotive skills and theory acquired during the freshman fall semester. All automotive students are required to attend an Internship Orientation session prior to starting their internship.

AUT* 163 - GM Internship 1C

1 credits Students participate in three weeks of practical training at either a GM dealership or AC Delco repair facility during their freshman winter intersession. Students will reinforce automotive skills and theory acquired during the freshman fall semester. All automotive students are required to attend an Internship Orientation session prior to starting their internship.

AUT* 171 - GM Internship 2

4 credits Students participate in 12 weeks (approximately 400 hours) of practical training at either a GM dealership or AC Delco repair facility during their freshman summer semester. Students will reinforce automotive skills and theory acquired during the freshman spring semester.

AUT* 201 - GM Engine Performance

3 credits Introduces GM ASEP program students to fuel and emission system theory and repair in accordance with NATEF standards. Presents content specified in the current GM dealership engine performance curriculum. Includes content covered in ASE exam A8 Engine Performance. Lecture Hours: 2 Lab Hours: 3
Prerequisite(s): AUT* 112.

AUT* 203 - GM Manual Drivetrain

3 credits Introduces GM ASEP program students to manual drivetrain theory and repair in accordance with ASE standards. Presents content specified in the current GM dealership manual drivetrain curriculum. Includes content covered in ASE exam A3 Manual Drivetrain. Lecture Hours: 2 Lab Hours: 3
Prerequisite(s): AUT* 112.

AUT* 205 - GM Automatic Drivetrain

3 credits Introduces GM ASEP program students to automatic drivetrain theory and repair in accordance with ASE standards. Presents content specified in the current GM dealership automatic drivetrain curriculum. Includes content covered in ASE exam A2 Automatic Drivetrain. Lecture Hours: 2 Lab Hours: 3
Prerequisite(s): AUT* 203.

AUT* 207 - GM Climate Control and Safety Systems

3 credits Introduces GM ASEP program students to climate control and safety system theory and repair in accordance with ASE standards. Presents content specified in the current GM dealership safety curriculum. Includes content covered in ASE exam A6 and A7. Lecture Hours: 2 Lab Hours: 3
Prerequisite(s): AUT* 112.

AUT* 261 - GM Internship 3A

1 credits Students participate in three weeks of practical training at either a GM dealership or AC Delco repair facility during their sophomore fall semester. Students will reinforce automotive skills and theory acquired during the sophomore fall semester. All automotive students are required to attend an Internship Orientation session prior to starting their internship.

AUT* 262 - GM Internship 3B

1 credits Students participate in four weeks of practical training at either a GM dealership or AC Delco repair facility during their sophomore winter intersession. Students will reinforce automotive skills and theory acquired during the sophomore fall semester.

AUT* 263 - GM Internship 3C
1 credits Students participate in three weeks of practical training at either a GM dealership or AC Delco repair facility during their sophomore spring semester. Students will reinforce automotive skills and theory acquired during the sophomore fall semester. All automotive students are required to attend an Internship Orientation session prior to starting their internship.

AUT* 271 - GM Internship 4
3 credits Students participate in ten weeks of practical training at either a GM dealership or AC Delco repair facility during their sophomore summer semester. Students will reinforce automotive skills and theory acquired during the sophomore spring semester. All automotive students are required to attend an Internship Orientation session prior to starting their internship.

AUTOMOTIVE - HONDA PACT

AUT* 141 - Honda Express Service
1 credits Provides the student with fundamentals of operation and maintenance procedures including researching vehicle service information. Students will learn basic automotive shop safety, tool and equipment use. Upon completion of the course, students should be able to safely and accurately perform Honda's A1-B1 vehicle inspection and maintenance service with efficiency and 100% accuracy. Lecture Hours: 1 Lab Hours: 3

AUT* 155 - Honda Power Plant - Theory
2 credits Focuses on basic design and construction of American Honda Motor Co., Inc., (AHM) Power Plant systems. Emphasis will be on engine disassembly and measurement procedures, engine mechanical diagnosis and repair, engine removal and installation. Lecture Hours: 4
Prereq/Corequisite(s): AUT* 156

AUT* 156 - Honda Power Plant - Lab
2 credits Focuses on basic design and construction of American Honda Motor Co., Inc., (AHM) Power Plant systems. Emphasis will be on engine disassembly and measurement procedures, engine mechanical diagnosis and repair, engine removal and installation. Lab Hours: 4
Prereq/Corequisite(s): AUT* 155

AUT* 157 - Honda Electrical systems - Theory
2 credits Introduces Honda PACT program students to automotive electrical theory and repair in accordance with ASE standards. Presents content specified in the current American Honda Motor Co., Inc. dealership electrical curriculum. Includes content covered in ASE exam A6 Electrical/Electronic systems. Lecture Hours: 4
Prereq/Corequisite(s): AUT* 141, AUT* 158

AUT* 158 - Honda Electrical Systems - Lab
2 credits Introduces Honda PACT program students to automotive electrical theory and repair in accordance with ASE standards. Presents content specified in the current Honda Honda Motor Co., Inc. dealership electrical curriculum. Includes content covered in ASE exam A6 Electrical/Electronic Systems. Lab Hours: 4
Prereq/Corequisite(s): AUT* 141, AUT* 157

AUT* 165 - Honda Steering and Suspension - Theory
2 credits Covers the theory, diagnosis, and repair of American Honda Co. steering and suspension systems including alignment. Includes a complete presentation of automotive wheel and tire problems and how to repair them. Theory, operation, diagnosis will all be covered. Lecture Hours: 4
Prereq/Corequisite(s): AUT* 166

AUT* 166 - Honda Steering and Suspension Systems - Lab

2 credits Covers the diagnosis and repair of American Honda Co. steering and suspension systems including alignment. Includes a complete presentation of automotive wheel and tire problems and how to repair them. Theory, operation, diagnosis will all be covered. Lab Hours: 4
Prereq/Corequisite(s): AUT* 165

AUT* 167 - Honda Braking Systems - Theory

2 credits Presents in theory, all Honda/Acura hydraulic brake systems. Covers all types of disc and drum brakes and repair procedures. Honda/Acura traction control and stability control systems will be explored. Theory, operation, diagnosis, and repair procedures will all be covered. Lecture Hours: 4
Prereq/Corequisite(s): AUT* 168

AUT* 168 - Honda Braking Systems - Lab

2 credits Presents, in practice, all Honda/Acura hydraulic brake systems. Covers all types of disc and drum brakes and repair procedures. Honda/Acura traction control and stability control systems will be explored. Theory, operation, diagnosis, and repair procedures will all be covered. Lab Hours: 4
Prereq/Corequisite(s): AUT* 167

AUT* 181 - Honda Practicum I

1 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred and ten hours of experience.

AUT* 211 - Honda Engine Management Systems - Theory

2 credits Covers, in theory, basic performance and emissions theory and nomenclature, as well as the skills necessary to service and repair compyterized automotive fuel and ignition systems on Honda and Acura vehicles. Theory, operation, diagnosis, and repair procedures will all be covered. Lecture Hours: 4
Prereq/Corequisite(s): AUT* 212

AUT* 212 - Honda Engine Management Systems - Lab

2 credits Presents, in practice, basic performance and emissions theory and nomenclature, as well as the skills necessary to service and repair computerized automotive fuel and ignition systems on Honda and Acura vehicles. Theory, operation, diagnosis, and repair procedures will all be covered. Lab Hours: 4
Prereq/Corequisite(s): AUT* 211

AUT* 213 - Honda Drivetrain Systems - Theory

2 credits Presents, in theory, proper procedures for the diagnosis and repair of American Honda Motor Co., transmissions and transaxles. It places particular emphasis on clutches, drive (half) shafts, and universal joints, along with rear axle and four-wheel drive components. Theor,y operation, diagnosis, and repair procedures will all be covered. Lecture Hours: 4
Prereq/Corequisite(s): AUT* 214

AUT* 214 - Honda Drivetrain Systems - Lab

2 credits Presents, in practice, proper procedures for the diagnosis and repair of American Honda Motor Co., transmissions and transaxles. It places particular emphasis on clutches, drive (half) shafts, and universal joints, along with rear axle and four-wheel drive components. Theory, operation, diagnosis, and repair procedures will be covered. Lab Hours: 4
Prereq/Corequisite(s): AUT* 213

AUT* 255 - Honda Advanced Electrical Systems - Theory

2 credits Covers, in theory, advanced electrical systems theory, diagosis, and repair on American Honda Motor Co., vehicles. An overview of various hybrid systems will be presented. We will investigate high-performance applications of automotive upgrades. Students will receive training theory, hands-on repair and diagnosis of modern hi-tech power plants and gasoline

powered vehicles with an emphasis on performance. Lecture Hours: 4
Prereq/Corequisite(s): AUT* 256

AUT* 256 - Honda Advanced Electrical Systems - Lab
2 credits Covers, in practice, advanced electrical systems, diagnosis, and repair on American Honda Motor Co., vehicles. An overview of various hybrid systems will be presented. Investigation of high-performance applications of automotive upgrades will be done. Students will receive training theory, hands-on repair and diagnosis of modern hi-tech power plants and gasoline powered vehicles with an emphasis on performance. Lab Hours: 4
Prereq/Corequisite(s): AUT* 255

AUT* 257 - Honda Climate Control & Restraint Systems - Theory
2 credits Presents, in theory, the proper procedures for the diagnosis and repair of Honda and Acura air conditioning systems, heating, and engine cooling systems, operating systems, and related controls. Theory, operation, diagnosis, and repair procedures will all be covered. Lecture Hours: 4
Corequisite(s): AUT* 259

AUT* 259 - Honda Climate Control & Restraint Systems - Lab
2 credits Presents, in practice, the proper procedures for the diagnosis and repair of Honda and Acura air conditioning systems, heating, and engine cooling systems, operating systems, and related controls. Theory, operation, diagnosis, and repair procedures will be covered. Lab Hours: 4
Prereq/Corequisite(s): AUT* 257

AUT* 281 - Honda Practicum II
1 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred and ten hours of experience.

AUT* 283 - Honda Practicum III
2 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred and ten hours of experience.

AUT* 284 - Honda Practicum IV
1 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred and ten hours of experience.

AUT* 285 - Honda Practicum V
1 credits Designed to provide students supervised practical application of previously studied theory. An opportunity to focus on the development of professional and technical competencies as well as on-the-job training. Students are responsible for finding their own placement. Each credit equates to roughly one hundred and ten hours of experience.

BIOLOGY

BIO* 100 - Basic Biology
SK: Scientific Knowledge and Understanding
3 credits A one-semester course in Biology that introduces students to the chemical and cellular bases of life, diversity and classification of life and the mechanisms that different organisms require for survival and reproduction. Also introduces the basis principles of inheritance and evolution as well as interactions with other organisms and their environment.

BIO* 105 - Introduction to Biology

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Deals with the chemical and cellular bases of life, cell structure and function, growth, diversity and classification, life cycles of plant and animal representatives. Principles of genetics, organic evolution, and ecology. Involves fieldwork and dissection. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): Eligible for ENG* 101.

BIO* 110 - Principles of the Human Body

SK: Scientific Knowledge and Understanding

3 credits Introduces students to the basic structures and functions of the human body. An overview of chemical and cellular processes will be covered. Explores the major organs and systems. Students will gain insights into how their own bodies work. Lecture only.

BIO* 113 - Physiology of Aging

SK: Scientific Knowledge and Understanding

3 credits Studies the physical aging process of older individuals to give the student knowledge of age-related cognitive and physical changes and the impact those changes have on the social and psychological functioning of the individual.

BIO* 115 - Human Biology

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Deals with the structure of the body in relation to function in both health and disease. The laboratory exercises explore the human body's biological systems. Involves dissection. Lecture Hours: 3 Lab Hours: 3

BIO* 121 - General Biology I

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Deals with basic chemistry, the molecular and cellular bases of life, metabolism, and the growth and reproduction of cells. Covers the molecular and chromosomal bases of heredity and evolution. Details of Prokaryotes, Protista, and Fungi are included. Involves some fieldwork and dissection. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): MAT* 137 or higher or sufficient placement scores

BIO* 122 - General Biology II

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Builds on concepts in General Biology. Deals with the diversity and classification of life, plant and animal structures, functions and evolution, animal behavior and the immune system, and the interaction between various forms of life and their environments. Involves some fieldwork and dissection. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): BIO* 121 or instructor's permission.

BIO* 211 - Anatomy and Physiology I

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Covers the human body structure and functions, emphasizes the basic concepts of chemistry and cells. Topics covered in more depth are tissues, the integumentary, skeletal, articular, muscular, and nervous systems. Laboratory work parallels the material covered in lecture. Dissection and microscope work is required. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): BIO* 105 or BIO* 121 both with a C or better.

BIO* 212 - Anatomy and Physiology II

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Builds on the knowledge learned in BIO* 211. Covers the endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems. Laboratory work parallels the material covered in lecture. Dissection is required. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): BIO* 211 with a grade of C or better.

BIO* 213 - Human Cadaver Anatomy

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Explores the human anatomy integrating online course work and human cadaver dissection.
Prerequisite(s): BIO* 211 and BIO* 212 with a grade of B+ or higher.

BIO* 214 - Human Pathology

3 credits This course is designed to study the various aspects of human diseases such as those that are pertinent to the student pursuing a profession in healthcare. Lecture Hours: 3
Prerequisite(s): BIO* 212 with a grade of C or higher.

BIO* 217 - Survey of the Human Cadaver

1 credits Surveys a prosected human cadaver. All organ systems are studied with special reference to clinical significance.
Prerequisite(s): BIO* 211 with a C or better.

BIO* 235 - Microbiology

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Considers the general characteristics of microorganisms, emphasizing host-parasite relationships, details of morphology and physiology, and the control of epidemiological problems. Emphasizes human and animal pathogens. Laboratory work parallels the material covered in lectures and provides experience in microbial techniques.
Prerequisite(s): BIO* 105 or BIO* 121 or BIO* 122 or BIO* 211 or BIO* 212 or instructor's permission.

BIO* 262 - Genetics

4 credits Covers the basic concepts of classical and molecular genetics. Topics covered will focus on the fundamentals of gene structure and function, genome organization, molecular variation, patterns of inheritance, genetic disease, and current research. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): BIO* 121

BIOCHEMISTRY

CHE* 220 - Biochemistry

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Provides an overview of the principal themes of biochemistry. The organization of amino acids, lipids, carbohydrates, and nucleic acids are addressed through a discussion of their hierarchical structure and their assembly into essential complexes in biological systems. Protein function is examined through the study of enzyme kinetics, the characterization of major metabolic pathways, and the interconnectivity of these pathways in tightly regulated networks. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): BIO* 121, CHE* 121, & CHE* 122 or instructor's permission; all with a grade of C or better.

BIOMEDICAL ENGINEERING TECHNOLOGY

BME* 110 - Biomedical Technology

2 credits Introduces the interdisciplinary nature of the Biomedical Engineering Technology program through engineering and medical terminology. Presents hospital and industrial policies, procedures, and codes with an emphasis on safety. Introduces biomedical instrumentation, control systems, and the man-machine interface.

BME* 112 - Biomedical Electrical Circuits

5 credits Presents electrical circuits for biomedical instrumentation. Introduces and develops concepts of voltage, resistance, current, and power in DC and AC circuits. Analyzes RLC circuits in DC and AC circuit applications. Presents Thevenin, maximum power transfer, and superposition theorems. Introduces electromagnetism and its effects. Lecture Hours: 4 Lab Hours: 2

BME* 114 - Biomedical Electronics

5 credits Offered: (Course has not been offered in the past two years)

Presents electronics for biomedical instrumentation. Stresses reliability and safety. Introduces electron tubes and solidstate devices. Presents design and application of amplifiers, oscillators, high input impedance devices, and precision timers. Introduces and develops power supply design, voltage regulation, and high power-high speed switching. Lecture Hours: 4 Lab Hours: 2

Prerequisite(s): BME* 112.

BME* 116 - Physiological Systems

4 credits Examines human anatomy and physiology, using chemical, mechanical, and electrical system models. Presents biopotential generation and regulatory control systems. Develops computer simulations of physiological events. Lecture Hours: 3 Lab Hours: 2

BME* 210 - Biomedical Instrumentation

CALT: Critical Analysis/Logical Thinking

4 credits Presents the principles, applications, and design of biomedical instrumentation. Includes discussion of measuring, monitoring, diagnostic, therapeutic, and clinical laboratory equipment. Presents imaging techniques and computer based systems. Lecture Hours: 3 Lab Hours: 2

Prerequisite(s): EET* 136.

BME* 212 - Biomedical Equipment Design

CALT: Critical Analysis/Logical Thinking

4 credits Develops instrumentation standards and construction techniques for biomedical equipment. Design of the documentation and hardware/software for a biomedical instrumentation system. Uses commercial instrumentation systems for analysis and testing. Lecture Hours: 2 Lab Hours: 4

Prerequisite(s): BME* 210.

BME* 214 - Advanced Biomedical Instrumentation

4 credits Presents applications of data acquisition and analysis, imaging, and control systems. Develops microprocessor- and computer-based instrumentation. Systems studied include Medical Networking, Expert Systems, Fiberoptics, Lasers, and Tomography. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): BME* 210.

BME* 220 - Biomedical Practicum

3 credits Applies safety, calibration, and troubleshooting techniques to practical situations. Also provides on-site practical experience in a hospital.

Prerequisite(s): Approval of Program Coordinator.

BUSINESS - ENTREPRENUERIAL STUDIES

BES* 218 - Entrepreneurship

CALT: Critical Analysis/Logical Thinking

3 credits Introduces students to what entrepreneurship is and how to realize the dream of starting a business by developing an entrepreneurial mindset. Emphasis is placed on how and where to start, feasibility and competitive analyses, market research, customer validation, legal forms or organization, capital acquisition, and other start-up issues. Students will learn the business model canvas approach and how to write a business plan. The skills learned can be applied to developing entrepreneurial initiatives for non-profits, social ventures, and entrepreneurial initiatives in existing larger businesses and organizations.

Prerequisite(s): Eligibility for ENG* 101

BES* 219 - Management and Growth – Small Business

3 credits Focuses on concepts, processes, and techniques for managing and growing a small business, whether it is a for-profit, non-profit, or social venture. Topics include marketing to attract new customers and keep existing customers, human resource

management, and financial management to maintain proper financial records, budgetary decisions, cash flow, and payment of taxes and loans to maintain profitability. Students who want to own and grow their own businesses should take this course.

BES* 239 - Business Plan

3 credits Prepares student to launch a business. Builds upon BES* 218 to take their business concept to the next level and develop a model and plan to launch a business. Will be hands-on where the student will take the role of the senior executive of the business. Pre-launch actions in marketing, legal, financial, and operations will be determined.
Prerequisite(s): BES* 218. **Prereq/Corequisite(s):** ACC* 100 or ACC* 113 and BMK* 201.

BES* 295 - Launch a Business

(LAB)
3 credits Designed for students who are ready to launch a business, have an established business, or are working in a family-owned business. Students will execute pre-launch plans and build a MVP (Minimum Viable Product or Service), prepare and conduct a marketing campaign, file legal documents, obtain start-up funding, select a location, and operate the business part-time to discover a sustainable business model. The experiential learning approach will be used in this course where the students will create and operate their own small businesses. Students will be mentored by the instructor and other outside business experts.
Prerequisite(s): BES* 218 or permission of the instructor

BUSINESS - FINANCE

BFN* 110 - Personal Finance

CALT: Critical Analysis/Logical Thinking
3 credits Examines the basic principles and important concepts of personal finance. Includes personal budgeting, consumer credit, insurance, real estate, personal income taxes, retirement, investments, and safeguarding of assets.
Prerequisite(s): Eligibility for ENG* 101

BFN* 126 - Principles of Insurance

3 credits Examines the history, economics, and social values of insurance. Compares various contracts and coverage; studies the structure of the insurance industry; emphasizes principles such as sales, underwriting, claims, rate making and government regulations. Meets the education prerequisite for Connecticut Property and Casualty Insurance Broker examination.

BFN* 201 - Principles of Finance

3 credits Surveys sources of short-, intermediate- and long-term funds for a business. Discusses stocks, bonds, investment and working capital, banking policy of systems, urban financing, and government financing.
Prerequisite(s): ACC* 113, ACC* 117, CSA* 135, ECN* 101, ECN* 102, MAT* 166 or instructor's permission.

BFN* 203 - Sports Finance

3 credits Presents the financial issues that impact the sports and athletic industries. Through the application of principles and practices of financial management, students will develop the financial skills necessary to analyze the implications of various operating procedures, including obtaining revenue, spending, capital projects, and supply and demand. Other topics include budget development and economic impact within the sports industry. Lecture Hours: 3
Prerequisite(s): ACC* 113, ECN* 101, ECN* 102

BUSINESS - GENERAL

BBG* 101 - Introduction to Business

3 credits Introduces the principles and practices of business management. Applies management principles to various types of business and industrial organizations and organizational problems.

BBG* 107 - Introduction to Sports Management

3 credits Examines the principles and foundations of sports management and the variety of business functions within the various sectors of the sports industry. Will focus on the applications of business disciplines to the birth, organization and management of sport enterprises, ranging from sports teams to athletic arenas, health clubs to rehabilitation facilities, officiating, sports recreation services, etc. Past and future trends, issues and opportunities in the broad sports industry will be covered. Lecture Hours: 3

BBG* 115 - Business Software Applications

3 credits Stresses the usefulness of computers in business. Students will learn in this hands-on course how to use word processing software for writing and editing, data base software to organize and search for information, and spreadsheet software to perform calculations on tables of numbers.

BBG* 210 - Business Communication

OC: Oral Communication
3 credits Emphasizes basic communication skills in a business environment. After a review of grammar, punctuation and sentence structure, students will plan, organize, and edit several forms of business communications, including memos, letters, resumes, and reports. Oral presentations are part of the curriculum. Social networking for business purposes and its various uses is also discussed; students evaluate the advantages and potential risks.
Prerequisite(s): Eligibility for ENG* 101.

BBG* 211 - Sports Media and Public Relations

3 credits Presents an introduction to sports media and public relations and its role within the sporting industry. Addresses creating effective media pieces to promote sports and events. Topics will include improving writing skills, publications, crisis management, game management, current events, publicity campaigns and more. Lecture Hours: 3
Prerequisite(s): BBG* 210

BBG* 231 - Business Law I

3 credits Provides an understanding of fundamental legal principles and their application to business transactions. Stresses knowledge of laws relating to administrative regulations, consumer protection, environmental protection, torts and crimes, and contracts.

BBG* 232 - Business Law II

3 credits Emphasizes the understanding of laws relating to personal property, bailments, sales, negotiable instruments, agency and employment, and business organizations.
Prerequisite(s): BBG* 231.

BBG* 240 - Business Ethics

3 credits Introduces students to concepts of philosophy and ethics and traditional and contemporary ethical theory. This course critically examines both the theories and applications of moral problems in business. Topics include employee rights and responsibilities, pay equity and comparable worth, whistleblowing, trade secrets and confidentiality, conflict of interest, discrimination and sexual harassment, pollution, consumer protection, professional ethics, truth-telling in business dealings, social responsibility of business, and fiduciary responsibility to stockholders and stakeholders.
Prerequisite(s): ENG* 101.

BBG* 294 - Business Internship

3 credits Provides an opportunity for students to gain experience in business and industry. Students will be required to spend a minimum of five hours per week at their internship site. Furthermore, in-class sessions will be held during the semester for orientation and evaluation purposes.
Prerequisite(s): Fifteen earned credits in Business courses, ENG* 101, a minimum GPA of 2.75. Students will be interviewed during the semester prior to taking this course. Instructor's permission required for registration.

BRE* 201 - Real Estate Principles

3 credits Offered: (Course has not been offered in the past two years)
Covers land, business and market ownership, leases, advertising, financing, and mortgages. Aids the student in taking the Connecticut examination for agent or broker licensing.

BRE* 202 - Real Estate Principles

4 credits Offered: (Course has not been offered in two years)
Required for real estate salesperson pre-licensing in the State of Connecticut. Provides comprehensive introduction to the real estate business and those interest in learning about this exciting industry. Will introduce brokerage, listing agreements, buyer/seller representation, ownership of real estate, legal descriptions, taxes, contracts, liens, transfer or title and more. Students intending to sit for the State of Connecticut Real Estate Exam must attend and pass this course with a grade of 70 or better. Course material is extensive and students are expected to complete considerable reading assignments.

BUSINESS - MANAGEMENT

BMG* 110 - Public Utility Management

CALT

3 credits Introduces the management of water, gas, electric, and wastewater utilities. Introduction to utility management, planning regulations, finance, operation and maintenance, safety, public relations, customer service, environmental health and safety, legal and ethical issues. Designed to prepare individuals to meet the initial certification Continuing Education Unit Certification Requirements of the Connecticut Department of Health Services and the Connecticut Department of Energy and Environmental Protection. Also appropriate for practicing professionals who may desire to broaden and update their knowledge and skills.

BMG* 202 - Principles of Management

3 credits Introduces the study of management, which is both a discipline and a process. Major topic areas include the evolution and scope of management, decision making, planning, organizing, leading, and controlling. Emphasizes the importance of managing in a global environment and understanding the ethical implications of managerial decisions.

BMG* 203 - Leadership

3 credits Provides an in-depth examination of the nature and importance of leadership concepts and principles as applied to organizational effectiveness. Leadership research, practice, and skills are emphasized in light of modern theories and applications. The course utilizes personal inventories, journals, service opportunities, discussion, and critical reflection to develop leadership skills and build an understanding of the role of leadership in organizations.

BMG* 216 - Rates and Revenues

3 credits Covers the legal basis, principles, and concepts of public utility regulation and provides an overview for those new to regulatory policies. Determination of revenue, utility business models, and the ratemaking process are included. Students must be capable of critical business thinking and evaluation before enrolling in this course. Students should already be able to explain and apply basic public utility management skills.

BMG* 219 - Asset & Infrastructure Management

3 credits Covers basic information, problems, and solutions associated with infrastructure and asset management. Topics include evaluation, preservation, and rehabilitation of existing infrastructures, repair materials, strategies, risk, fiscal and management concerns. Comprehensive knowledge of the fundamental processes and techniques required to establish an effective infrastructure asset management program will be provided. Systematic and risk-based processes for making decisions concerning the management and renewal of the utility's physical assets including infrastructure, fixed plant, and mobile equipment. Students should already be able to explain and apply basic public utility management skills.

BMG* 220 - Human Resources Management

3 credits Introduces the legal and social function of Human Resource Management in today's dynamic business environment. Topics include personnel, planning, recruitment, testing, training, compensation, motivation, performance, appraisals, and career management.

BMG* 221 - Customer Relations

3 credits Introduces the fundamentals of developing best practices for internal customer service and the impact on external customer service. Explores the basic elements of setting internal expectations for service delivery, hands-off within the customer supply chain, and the five Ws of a hand-off (who, what, when, where, and why). Students should already be able to explain and apply basic public utility management skills.

BMG* 227 - Risk Management

3 credits Covers risk management policies, business property risks, family property, and liability risks. Analyzes and discusses actual cases.
Prerequisite(s): BFN* 126.

BUSINESS - MARKETING/RETAIL MANAGEMENT/FASHION MERCHANDISING

BMK* 103 - Principles of Retailing

3 credits Explores the fundamentals of retailing and its scope and significance in our marketing system. Among the topics covered are the distinguishing characteristics of retailing, store classification, operations planning, location analysis, layout and design. The course also covers the retail price, future trends, and retailing careers.

BMK* 201 - Principles of Marketing

3 credits Presents the fundamentals of marketing and marketing theory. Emphasis will be on theories relevant to marketing and the business environment, marketing and the social environment, product strategies, distribution, promotion, and pricing.

BMK* 215 - Principles of eBusiness

3 credits Presents the fundamentals of eBusiness focusing on e-marketing. Covers the concepts, tools, and strategies for exploring and understanding the opportunities and challenges associated with eBusiness.

BMK* 220 - Sales

3 credits An introduction to the principles, methods, and techniques of selling and the application of these principles through individual sales demonstrations. Topics include creating value in the buy-seller relations, prospecting, sales call planning, communicating the message and closing the sale. The course also covers how to motivate, compensate and train sales people.

BMK* 230 - Advertising and Promotion

3 credits Discusses special practices in retail advertising and sales promotion. Includes strategic promotional planning, preparing a media-wide retail promotional campaign, visual merchandising, and publicity. Discusses effective techniques in the preparation of retail copy.

BMK* 241 - Principles of Advertising

3 credits Provides an overview of advertising and promotion from an IMC (integrated marketing communications) perspective. The economic, social and legal aspects of advertising will be covered. Focus will be on market research, market segmentation, media strategy planning, promotional messages, advertising media selection and metrics.
Prereq/Corequisite(s): BMK* 201.

BMK* 242 - Retail Buying

3 credits Introduces the basic principles of buying merchandise for resale, sources of supply, determining and selecting suitable merchandise, negotiating for merchandise, basic buying considerations, and other related activities.

BMK* 255 - Fashion Analysis

3 credits Analyzes the economic, psychological, and sociological factors in the development of fashion. Students obtain a knowledge of fashion terminology, fashion designers, color, line, design, and the stages in the fashion cycle. Studying the historical development of costume, from the Egyptian period through the twentieth century, helps the student interpret and discuss fashion trends.

BMK* 257 - Textiles

3 credits Provides a background in and selling information for various textile products. Discusses standards for identifying high quality products and how to care for them. Focuses on materials, construction, methods of manufacturing, and basic styles in order to analyze the appeal of merchandise to customers.

BMK* 285 - Current Marketing Topics

3 credits Designed to provide students with an understanding of the fundamentals of social media marketing and how it has grown into a powerful tool for marketers. Surveys the landscape of social media and how it can be used effectively and efficiently. Topics include social media platforms, social media marketing strategies, social media marketing mix, social communities, social publishing, social entertainment, social commerce, social media for consumer insights, and social media metrics.
Prereq/Corequisite(s): BMK* 201.

BMK* 295 - Field Experience I

3 credits Provides opportunity for students to gain experience in the fashion and retail industries, knowledge of a store's, manufacturer's, or other organization's policies, systems and job responsibilities and ethics. Students will be required to spend a minimum of 6 hours per week at their work site (paid or unpaid) as well as online and in-class discussions.
Prerequisite(s): Eligibility for ENG* 101, minimum GPA of 2.5 and instructor's permission.

BMK* 296 - Field Experience II

3 credits Provides the opportunity for students to build on the experience gained in Field Experience I or gain new experience in the fashion and retail industries. Gain knowledge of a store's, manufacturer's, or other organization's policies, systems, and job responsibilities and ethics. Students will be required to spend a minimum of 6 hours per week (approximately 90 hours total) at their work site (paid or unpaid) as well as online and in-class discussions.
Prereq/Corequisite(s): BMK* 295, minimum GPA of 2.5 or instructor permission.

BUSINESS OFFICE TECHNOLOGY

BOT* 111 - Keyboarding for Information Processing I

3 credits Presents the keyboard and correct key-stroking technique by means of the touch method and word processing computer software packages. Practical applications include simple tabulations, letters, memoranda, and short reports.
Notes: May not be taken concurrently with BOT* 137. All Business Office Technology courses may be taken as a business or computer elective.

BOT* 112 - Keyboarding for Information Processing II

3 credits Improves on the skills developed in BOT* 111 course and introduces a variety of production problems, including correspondence, tabulations, business forms, and reports.
Prerequisite(s): BOT* 111. Note: may not be taken concurrently with BOT* 111. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 137 - Word Processing Applications (Word)

3 credits Introduces students to the concepts of word processing and hands-on experience with computers and popular word processing software.
Prerequisite(s): BOT* 111. Note: may not be taken concurrently with BOT* 111. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 181 - Medical Coding I

3 credits Offered: Spring Only
Provides students with an in-depth study of basic International Classification of Disease, 9th rev. Clinical Modification (ICD-10-CM) and Current Procedural Terminology (CPT-4) coding. Diagnoses, procedures, signs, and symptoms will be studied and coded by students using the assigned textbook. The flow of medical records from the physician's office to hospital discharge will be tracked for insurance, risk management, and case study purposes.
Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 182 - Medical Coding II

3 credits Continues the concepts introduced in Medical Coding I using International Classification of Disease, Clinical Modification (ICD-9-CM) and Current Procedural Terminology (CPT-4). Students will utilize medical records and case histories to code the diagnoses and procedures according to the level of care received in the appropriate medical facilities.
Prerequisite(s): BOT* 181. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 217 - Desktop Publishing (BOT 218)

3 credits Offered: (Course has not been offered in the past two years)
Presents the concepts and applications of desktop publishing. Using personal computers and state-of-the-art software, students will learn the fundamentals of using desktop publishing to create newsletters, brochures, reports, fliers, and resumes.
Prerequisite(s): Knowledge of Microsoft Windows and touch keyboarding (35 wpm). Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 219 - Integrated Microsoft Office

3 credits Offered: Spring
Students will work independently to solve production problems of increasing complexity using Microsoft Office (Word, Excel, Access, and PowerPoint).
Prerequisite(s): CSA* 140. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 220 - Computerized Communication (Microsoft PowerPoint, e-mail, Internet)

3 credits Provides students with hands-on experience using the Internet, e-mail and Microsoft PowerPoint presentation and voice-recognition software. In this activity-oriented course, students will use state-of-the-art software and hardware to develop skills in these areas.
Prerequisite(s): Knowledge of Microsoft Windows. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 251 - Administrative Procedures

3 credits Includes letter composition, keyboarding rough drafts, handling incoming and outgoing mail, records management, preparing itineraries and reports, telephone etiquette, business ethics and etiquette.
Prerequisite(s): BOT* 137 or instructor's permission. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 271 - Legal Document Production

3 credits Offered: Spring Only
Helps students achieve the ability to accurately type legal documents efficiently and effectively. Includes keyboarding legal terminology, understanding the correct use of legal documents, formal legal correspondences, and legal office projects. At least one field trip to a courthouse is required. Offered in the spring semesters.
Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 272 - Legal Administrative Procedures

3 credits Offered: Fall Only

Applies keyboarding skills to prepare legal papers and correspondence and presents the court system and the sources of laws, law office ethics, non-court documents, litigations, and appeals. Offered in the fall semester of odd years (2005, 2007, etc.).
Prerequisite(s): BOT* 112 and BOT* 137 or instructor's permission. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 279 - BOT Administrative Practicum

4 credits Provides on-the-job experiences in the offices of the College, area businesses, local lawyers' or doctors' offices and hospitals. Students are required to work a total of 125 hours during the semester. Hours will be arranged by mutual consent of the student and employer. In addition to the 125 hours, in-class session will be held which will involve online tutorials emphasizing soft-skills training. Additional meetings will be held during the semester for orientation and evaluation proposes.
Prerequisite(s): BOT* 251;BOT* 271 (legal) and BOT* 282 (medical) or instructor's permission. Minimum overall GPA 2.5 or higher. Notes: Students must meet with an instructor during the semester prior to taking this course. Instructor's permission required for registration. All Business Office Technology courses may be taken as a business or computer elective.

BOT* 282 - Medical Administrative Procedures

3 credits Offered: Spring Only

Presents the duties and responsibilities of the medical administrative assistant, including medical office ethics, patient interaction skills, health insurance, medical office software, telephone techniques, and filing.
Prerequisite(s): BOT* 137 or instructor's permission. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 287 - Foundations/Management of Medical Insurance

3 credits Offered: Spring Only

Designed to develop abilities and skills that will enable students to define and explain the types of health insurance policies, contracts, and guideposts. Comparisons and analysis of insurance forms and application information are included. Emphasis will be placed on legal issues and medical record confidentiality.
Prerequisite(s): HIM* 101 with a grade of C or better. Notes: All Business Office Technology courses may be taken as a business or computer elective.

BOT* 291 - Electronic Health Records

3 credits Offered: Fall Only

Provides a comprehensive understanding of the history, theory, and functional benefits of Electronic Health Records (EHR). Through practical, hands-on learning activities, students will learn how to scan, import, and convert health information into specialized EHR applications. Students will learn to review electronic health records for timeliness, completeness, accuracy, and appropriateness. Emphasis will be placed on the need for strict adherence to patient confidentiality laws, authorized release of information, and data security. Skills acquired in this course can be applied to the medical office, clinic, or medical records department of a hospital. Recommended preparation: basic computer proficiency.
Prerequisite(s): HIM* 101 with a grade of C or better. Notes: All Business Office Technology courses may be taken as a business or computer elective.

CHEMISTRY

CHE* 101 - Introductory Chemistry

SK: Scientific Knowledge and Understanding
3 credits Surveys important chemical theories and applications, including the atomic structure of matter, chemical bonding and energy changes, gas laws, stoichiometry, solutions, electrochemistry, organic chemistry, and biochemistry.
Prerequisite(s): MAT* 115 or MAT* 137 or higher or placement in MAT* 142 or higher.

CHE* 111 - Concepts of Chemistry

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Serve either as a survey course or as a preparatory course for general chemistry. Intended for students with little or no background in Chemistry or for students who need to meet a readmission requirement for nursing or other allied health programs. Also serves students who require a laboratory science course. Discusses fundamental principles, theories, and laws of chemistry, including organic chemistry and biochemistry. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): MAT* 115, MAT* 137 , MAT* 137S, MAT* 137C , MAT* 137A or higher, or placement into MAT* 142 or higher.

CHE* 121 - General Chemistry I

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Presents the fundamental principles of chemistry, including atomic structure, stoichiometry, chemical bonding, chemical reactions, and chemical and physical changes. Laboratory experiments consist of the basic techniques used for chemical analysis and chemical reactions. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): MAT* 115 or MAT* 137 or higher or placement in MAT* 142 or higher.

CHE* 122 - General Chemistry II

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Builds on the knowledge learned in General Chemistry I. Includes reaction rates, electrochemistry, equilibrium conditions, pH, buffers and energy effects in chemical reactions. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): CHE* 121.

CHE* 211 - Organic Chemistry I

4 credits Presents bonding, formulation, and molecular shapes of organic molecules. Presents nomenclature, preparation, and creations of alkanes, cycloalkanes, alkenes, alkynes, and aromatics. Explains reaction mechanisms when necessary. The laboratory portion features the basic reaction and preparation techniques used in organic chemistry. The laboratory exercises investigate either the preparation or the reaction of the aforementioned chemical species. Lecture Hours: 3 Lab Hours: 4
Prerequisite(s): CHE* 122 or instructor's permission.

CHE* 212 - Organic Chemistry II

4 credits Builds on the knowledge learned in Organic Chemistry I, presenting the nomenclature, preparation, and creation of alcohols, ethers, aldehydes, ketones, carboxylic acids, esters, amines, and biomolecules. Explains reaction mechanisms when necessary. The laboratory exercises investigate either the preparation or the reaction of the aforementioned chemical species. Other laboratory exercises include using modern instrumentation to identify organic compounds. Lecture Hours: 3 Lab Hours: 4
Prerequisite(s): CHE* 211 or instructor's permission.

CHE* 231 - Quantitative Chemical Analysis with Environmental Applications

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Provides both theoretical and practical instruction in the fundamental principles of quantitative chemical analysis. Through both lecture and laboratory instruction, students will become proficient in how to perform a range of methods and techniques that are commonly applied in analytical settings. Students will be instructed in the use of statistics to evaluate the precision and accuracy of measurements. This knowledge will aid in assessing experimental data and will serve as a foundation for future work involving instrumental techniques. Emphasis will be placed on the specific methods employed for the analysis of toxic substances and environmental pollutants. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): CHE* 121 and CHE* 122.

CLEAN WATER MANAGEMENT

CWM* 106 - Introduction to Utility Management

3 credits Introduces areas of water and clean water (aka wastewater) including organization, planning, public relations, customer service, finances, environmental health and safety, security, operations and maintenance, human resources, information system and services, legal issues, support services, competition, continual improvement management and crisis communication.

CWM* 108 - Chemistry, Biology & Mathematics of Clean Water

4 credits Provides the biology, chemistry and mathematics knowledge necessary to succeed in subsequent courses covering the operation and maintenance of municipal wastewater facilities. Emphasis is placed on application to municipal wastewater facilities with a goal of preparing students to successfully pass Class I, II II and IV Wastewater Certification Examinations administered by the Connecticut Department of Environmental Protection.

CWM* 110 - Clean Water I

3 credits Introduces the safe and effective operation of wastewater treatment plants including preliminary, primary, and secondary treatment and disinfection.

CWM* 112 - Clean Water II

3 credits Introduces the safe and effective operation of wastewater treatment plants including security, surface and groundwater quality standards, sludge/biosolids handling, effluent disposal, biological processes and cycles, plant safety and maintenance, pumps, laboratory testing of wastewater and permits, records and reports. Lecture Hours: 2 Lab Hours: 2
Prerequisite(s): CWM* 110, DEP Class 1 License or permission of instructor.

CWM* 114 - Clean Water III

3 credits Introduces the safe and effective operation of wastewater treatment plants including odor control, nitrogen and phosphorous removal, wastewater reclamation and recycling, instrumentation and residual solids management. Lecture Hours: 2 Lab Hours: 2
Corequisite(s): CWM* 112, DEP Class 2 license or permission of instructor.

COMMUNICATIONS

COM* 101 - Introduction to Mass Communication

3 credits Surveys the American mass media and communication complex. The focus will be on the various print and electronic mass media industries and the impact of mass communication on our society. Introduces the various forms of communication media, the role of media as it informs, entertains and persuades. Designed as an introductory course for those students who plan to major in communication and for those who want to be informed about the development of the influence of modern mass media.
Prerequisite(s): Eligible for ENG* 101.

COM* 106 - Introduction to Broadcasting

3 credits Surveys broadcasting in the United States from its beginning to the present. Emphasizes the physical nature of the medium, the historical accidents of its origin and growth, the economic basis of its operation, and the role of the broadcaster in our society.

COM* 107 - Mass Communication and Advertising

3 credits Examines the social and economic aspects of advertising and consumer psychology, including the role of mass communication and advertising in marketing strategies. Presents legal restrictions, advertising practices, and issues and emphasizes the organization of the advertising industry today.

COM* 121 - Journalism I

3 credits Examines the role of the newspaper in our changing society and introduces the practical aspects of newspaper production. Includes assignments in reporting, editorializing, feature writing, and editing. May require students to participate in the production of college-wide periodicals.
Prerequisite(s): ENG* 101 or instructor's permission.

COM* 141 - Television Production I

3 credits Introduces the art, practice, theory and history of television production. Both experienced and non-experienced students will benefit from this course through study, hands-on production and editing techniques, workshops and actual studio practice during which students will work on actual live and taped programs.

COM* 172 - Interpersonal Communication

3 credits Develops oral communication skills in personal, family, and business relationships through practical applications and exercises. Provides an understanding of self and others. Examines assertiveness and interactive strategies. Lecture Hours: 3
Prerequisite(s): Eligibility for ENG* 101

COM* 173 - Public Speaking

OC: Oral Communication
3 credits Provides students with an understanding, appreciation, and capacity for public speaking. Excellence in public speaking requires mastery of informative and persuasive techniques of language, organization, citation of evidence, and use of rhetorical patterns of introduction and conclusion. Exposure to theoretical elements and their application in public speaking will be explored. Lecture Hours: 3
Prerequisite(s): Eligibility for ENG* 101.

COM* 174 - Advanced Public Speaking

3 credits Builds on the theory and practice of public speaking. Designed for professionals, advanced communication students, and for students needing to improve their presentation skills beyond an entry-level course.
Prerequisite(s): COM* 173

COM* 208 - Mass Media and Society

3 credits Surveys the components of mass communication. Introduces the nature and complexity of mass media by examining its role today in the political, economic, and social fabric of society.
Prerequisite(s): ENG* 101 and COM* 101 both with a C or better (effective Spring 2019)

COM* 270 - Advanced Human Communication

3 credits An introduction to fundamental concepts and theories related to competent communication in interpersonal, relational, and small group contexts. Students, working in group and team assignments, will practice effective, appropriate, and ethical communication behaviors in personal and professional situations. Lecture Hours: 3
Prerequisite(s): ENG* 101, COM* 173 (or COM* 171) all with a C or better.

COM* 279 - Advanced Visual Communication

3 credits This course is designed to provide a theoretical and technical foundation for visual communication. Students will utilize visual communication technologies to create and deliver effective messages. Messages that persuade, inform, and entertain will be created with hands-on applications and visual storytelling techniques. Lecture Hours: 3
Prerequisite(s): COM* 101, ENG* 101 both with a C or better.

COMPUTER AIDED DRAFTING (CAD)

CAD* 108 - CAD Introduction

3 credits Introduces the procedures and techniques of Computer-Aided Design (CAD). Lectures cover production of orthographic and simple isometric drawings from basic entities and editing commands. All classes are conducted in a computer laboratory. Lecture Hours: 1 Lab Hours: 4
Corequisite(s): CET* 116 or equivalent and ARC* 133 or equivalent.

CAD* 124 - CAD: Electrical

1 credits Introduces students to the computer-aided drawing software of MultiSim and LabView. Students produce a variety of electrical and electronic schematics and diagrams. Students also learn to apply the principles of graphing to engineering technology. (CAD* 126 - Electronics Graphics/CAD can be substituted for this course.) Lab Hours: 3

CAD* 126 - Electronics Graphics

3 credits Introduces the concepts and practical applications of computer-aided design for electrical and electronic circuits, using software such as MultiSim and LabView. Also introduces the simulation of electrical and electronic circuits. (CAD 126 can be substituted for CAD* 124). Lecture Hours: 3

CAD* 200 - 3D CAD Modeling

4 credits Improves students' CAD competencies by presenting additional techniques and specialized commands. All classes are conducted in a computer laboratory. Lecture Hours: 2 Lab Hours: 4
Prerequisite(s): CAD* 108 or equivalent.

CAD* 220 - Parametric Design

3 credits Introduces the Solidworks parametric mechanical design software. Focuses on parametric modeling and includes topics such as the design process, rapid prototyping, and mechanism analysis. Students will design 3D solid parts, sheet metal parts, and assemblies and develop 2D documentation from them. Students will participate in individual and group design projects as appropriate. (Prior knowledge of CAD or permission of instructor required)

CAD* 271 - CAD Solids Mechanical Pro-Engineer

3 credits Introduces the basic Pro-Engineer software operation including part creation, drawing and assembly. 3D objects are made and orthographic drawings are created. Pro-Engineer is 3D solid modeling software from parametric technology.

COMPUTER ENGINEERING TECHNOLOGY

CET* 110 - DC/AC Circuits

5 credits Presents the fundamental concepts of electric circuit behavior. Students will also learn basic DC and AC circuit analysis involving resistive, inductive, and capacitive elements and how reactance, resonance, and transformer relationships affect AC circuit response. Lecture Hours: 4 Lab Hours: 2
Prerequisite(s): MAT* 095 or higher level math class.

CET* 116 - Computer Applications for Technology

3 credits Introduces technology-driven reporting requirements for text, data and graphics, virtual instrumentation, computer simulations for technology problem solving, and determination of computer tools for technology issues. Stresses technical report preparation, including graphical and tabulated analysis of data, with appropriate calculations and conclusions displayed in a variety of formats. Computer skills used to access and apply technical information will also be included. Lecture Hours: 2 Lab Hours: 2

CET* 120 - Computer Electronics

5 credits Surveys hardware and software computer elements beginning with semiconductor devices and theory. Topics covered include general and special purpose diodes and related circuits, rectifier circuits, clipping and clamping circuits, transistors (including BJT, FET and UJT), and amplifier, oscillator, power supply, and voltage regulation circuits. This course concludes with an introduction to op-amps and their basic applications. Lecture Hours: 4 Lab Hours: 2
Prerequisite(s): CET* 110 or equivalent.

CET* 124 - Structured Programming

4 credits Covers structured programming techniques as tools for problem solving in engineering and technology applications. Emphasizes program development, structure, and testing. Lab assignments reinforce the topics discussed in lecture. Lecture Hours: 3 Lab Hours: 2

CET* 126 - Computer Servicing

4 credits Presents an overview of a microprocessing system with emphasis on hardware design, operation, troubleshooting, and servicing. The lab provides practical experience with electronic troubleshooting techniques. Actual servicing will take place on a

basic microcomputing system. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CET* 116

CET* 145 - Fundamentals of Voice and Cabling
4 credits Introduces students into the various hardware aspects of establishing communication links between computers and/ or other end devices (printers, fax machines, telephony systems, video systems, data transmission systems). There is a growing need for experienced and knowledgeable voice and data cabling installation, maintenance, repair, and plant layout design technicians. Will utilize the Cisco program or similar title as a foundation, but will supplement this program with college-level report writing, laboratory experimentation, and theoretical analysis of the practical information contained in the Cisco on-line curriculum program. Lecture Hours: 2 Lab Hours: 4
Notes: (Course has not been offered in over two years)

CET* 210 - Computer Systems Software
CALT
4 credits Investigates the computer's hardware-software interface. Topics include CPU architecture and programming, interfacing with I/O devices, memory management, file systems, and an introduction to networking. Laboratory assignments include installation and troubleshooting of system software for stand-alone and networked devices. Lecture Hours: 3 Lab Hours: 2

CET* 220 - Digital/Data Communications
4 credits Presents the fundamentals of digital and data communications, including serial and parallel transmission methodologies, media, protocol standards, and system architecture. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): EET* 136 and EET* 256.

CET* 270 - Computer Engineering Technology Practicum
3 credits Provides students with experience within the Computer Engineering Technology workplace. Students will gain knowledge and experience through technical training working closely with others to service users and customers under the supervision of a team leader, supervisor, or proctor. Students are required to attend four weeks of class prior to performing 50 hours of internship over the remainder of the semester. Uniforms, some travel and physical work may be required.
Prerequisite(s): CET* 126 & CET* 210.

COMPUTER SCIENCE

CSC* 101 - Introduction to Computers
3 credits Introduces the fundamental components common to all computer systems, including a comprehensive overview of contemporary computer terminology and concepts. Utilizes the College's computer resources for solving problems. Topics studied include the use of word processing, electronic spreadsheets, Microsoft Windows, the Internet, and other popular software packages.

CSC* 110 - Computer Logic and Problem Solving
3 credits Presents the fundamentals of computer problem-solving techniques. Stresses flow-charting and algorithm development. Lecture Hours: 3 Lab Hours: 2
Prereq/Corequisite(s): CSA* 105 or CSC* 101.

CSC* 124 - Programming Logic & Design with Python
3 credits Introduces structured programming concepts using Python and assumes no prior programming experience (for any language). Topics include data types, input/output from both the console and data files, arithmetic, comparison and logical operators, selection statements, looping, functions and arrays. Students should be comfortable working with simple algebraic equations and have basic file and folder managements skills on a personal computer.
Prerequisite(s): MAT* 137 or higher.

CSC* 150 - Database Applications and Design - Using SQL

4 credits Presents relational database concepts and organization. Students will learn to use SQL to query and change these databases and generate the output needed. Furthermore, students will design their own databases using one or more of the dominant relational databases, such as ACCESS or ORACLE. Lecture Hours: 3 Lab Hours: 2

CSC* 207 - Introduction to Visual Basic I

4 credits Presents both the design and implementation of computer programs using Microsoft Visual Basic for Windows. Students will build applications, work with controls, and design forms. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CSC* 101 or CSA* 105.

CSC* 208 - Advanced Visual Basic

4 credits Covers the benefits of on-line systems while concentrating on Visual Basic as the supportive software. Topics will be related to the operating environment, screen layouts and design, program components, input, output, file commands, and maintenance control. Using Visual Basic, students will build applications for the interactive control of file maintenance, including inquiry, adds, deletes, updates, and browse. Students have control of the complete cycle of program development. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CSC* 207.

CSC* 215 - Programming with Object Oriented C++

4 credits Introduces computer programming using C++. Each student will design, test, debug, and document several programs during the semester. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CSA* 105 or CSC* 101.

CSC* 223 - Introduction to Java Programming

4 credits Presents the fundamentals of Java programming as an object-oriented language. Topics include classes, objects, data structures, event handling, graphical user interfaces, control structures, and methods. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CSA* 105 or CSC* 101.

CSC* 250 - Systems Analysis and Design

3 credits Introduces systems analysis and design concepts and techniques. Using a case study method, students will conduct systems surveys, create feasibility studies, and design typical computer systems used in business and industry. Uses case studies to individualized student projects, reports, and PC systems.
Prerequisite(s): CSC* 101 or CSA* 105 or departmental permission.

CSC* 257 - Web Development with PHP

4 credits Introduces the fundamentals of programming with PHP; a widely used scripting language that is especially suited for creating dynamic websites and can be embedded into HTML. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CST* 152.

CSC* 262 - Programming Mobile Devices I

3 credits Introduces students to the various platforms in use on small and mobile devices. Platforms include Apple iPhone iOS; Google Android and others. Students will learn to create demonstration applications for these platforms using specialized development invironments. Three hours lecture/two hours lab. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CST* 152 and ONE of the following: CSC* 124, CSC* 207, CSC* 215, CSC* 223, or CSC* 257 all with a grade of C or higher.

CSC* 263 - Programming Mobile Devices II

3 credits Builds on the knowledge gained in CSC* 262 by enabling the student to specialize in development on a single device. The device is chosen prior to offering the class. All aspects of the development are covered in the context of the device. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CSC* 262.

COMPUTER SCIENCE APPLICATIONS

CSA* 105 - Introduction to Software Applications

3 credits Provides an introduction to IBM-compatible microcomputers, a basic understanding of Windows and the Internet, and an in depth coverage of the use of the microcomputer as an office productivity tool. Covers creating and editing word processing documents, spreadsheets and computerized visual presentations. Also covers file management using the Microsoft Windows operating system. This course assumes no prior computing experience and is open to all students except those majoring in computer science.

CSA* 135 - Spreadsheet Applications (Excel)

3 credits Provides students with the hands-on experience necessary to create, print, modify, and enhance electronic spreadsheets. This course also covers creating and printing charts; using formulas with absolute addresses and function formulas; Goal Seek; Solver; using and filtering Data Lists; creating Pivot Charts; using Outlines, Subtotals, and Lookup functions; and preparing what-if alternatives.
Prerequisite(s): Eligible for MAT* 095 or sufficient score on placement exam or permission of Program Coordinator or MAT* 095 or higher.

CSA* 140 - Database Applications (Access)

3 credits Provides students with hands-on experience entering and editing data, working with and customizing forms, creating and using queries, creating and customizing printing reports and mailing labels, and creating and relating tables using database software.

CSA* 295 - Computer Science Applications Practicum

3 credits Exposes students to real business programming that involves installing a brand new system. This project is typical of what would be expected from an entry-level programmer in business. Students will be responsible for the entire program development cycle for each of three new programs. Furthermore, students will be required to coordinate each of the parts into one integrated system.
Prerequisite(s): CSC* 208.

CSA* 296 - CWE - Computer Applications

3 credits Places senior Computer Science students in positions where they can use the technical skills acquired in this program. Assignments may be in an educational or corporate environment. It is strongly recommended that students interested in securing internships take advanced courses in subjects such as: Visual BASIC, networking, and 'C' language. All of the organizations participating in our program require that interns earn excellent grades in advanced courses in the internship area prior to placement. Both the number and the type of internships vary from year to year and the most qualified applicants are awarded the internships available. Students are responsible to the department for proper documentation of their work assignments and a final report summarizing the overall work experience. The student will work a minimum of eight hours per week.
Prerequisite(s): 24 earned credits in Computer Science courses; minimum QPA of 3.25; completion of CSC* 208; and formal notification of approval of internship application.

COMPUTER SCIENCE TECHNOLOGY

CST* 127 - Server Operating System

4 credits Analyzes the use of operating systems as a computer resource manager. It covers installation, configuration, maintenance and performance tuning of the operating system. Students will work on servers using the Microsoft Windows operating system. Also covers managing users and groups, computers and printers, file server management, and file system security. Microsoft Active Directory Services is a major topic in this course.
Prerequisite(s): CST* 133.

CST* 133 - Networking Fundamentals I

4 credits Presents the necessary knowledge and skills to complete the basic network management tasks of system administration in a Windows environment. Designed with frequent lab exercises, students will learn network fundamentals including the OSI layer, topology, TCP/IP (IPv4 & IPv6), network security, and troubleshooting procedures. Network hardware such as routers, hubs, switches, racks and cabling are introduced. Lecture Hours: 3 Lab Hours: 2
Corequisite(s): CSC* 101.

CST* 149 - Computer Network Hardware

4 credits Provides students with the technical knowledge and skills to maintain, troubleshoot and service Microsoft server and network equipment. Designed with frequent lab exercises to provide students with ample "hands-on" experience with the hardware and software components of a Windows network. Students will disassemble, reassemble, troubleshoot, and load device drivers for PC and server type computers. Also covers network hardware such as routers, switches, racks, uninterruptable power supplies, and tape drives. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CST* 133.

CST* 152 - Introduction to Web Page and Design

4 credits Discusses effective design of Web pages, emphasizing clarity, organization, text, images, and links. Students will work with an HTML editor and an Internet browser to test and view pages. Students will use JavaScript to create, maintain, and update Web pages. Tags, objects events, input methods, table creation, and rollover images are among the JavaScript topics that will be covered. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CSA* 105 or CSC* 101.

CST* 180 - Networking I

4 credits Serves as the first course in a series of four courses that provide classroom and laboratory experience in current and emerging networking technology. This series will empower students to enter the workforce and/or further their education and training in the computer networking field. Topics include the functions of the ISO/OSI reference model, data link and network addresses, the function of a MAC address, data encapsulation, the different classes of IP addresses and subnetting, and the functions of the TCP/IP network-layer protocols. Students learn how to plan, design, and install an Ethernet LAN using an extended or hierarchical star topology; select, install, and test cable; and determine wiring closet locations. Lecture Hours: 3 Lab Hours: 2

CST* 181 - Networking II

4 credits Serves as the second course in a series of four courses that provide classroom and laboratory experience in current and emerging networking technology. This series will empower students to enter the workforce and/or further their education and training in the computer networking field. Instruction includes, but is not limited to, safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI models, ethernet, Token Ring, Fiber Distributed Data Interface, TCP/IP Addressing Protocol, dynamic routing, routing, and the network administrator's role and function. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CST* 180.

CST* 182 - Networking III

4 credits Serves as the third course in a series of four courses that introduces new content and extends previously learned networking skills. This series will empower students to enter the workforce and/or further their education and training in the computer networking field. Instruction introduces and extends the student's knowledge of and practical experience in skills related to configuring LANs, WANs, Novell Networks, Internet work Packet Exchange (IPX) routing, Interior Gateway Routing Protocol (IGRP) protocols, and network troubleshooting. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CST* 181.

CST* 183 - Networking IV

4 credits Serves as the fourth course in a series of four courses that introduces new content and extends previously learned networking skills. This series will empower students to enter the workforce and/or further their education and training in the computer networking field. Instruction introduces and extends students' knowledge of and practical experience with Wide Area Networks (WANs), Integrated Services Data Networks (ISDN), Point-To-Point Protocols (PPP), and Frame Relay design, configuration, and maintenance. Develops practical experience and skills related to configuring WANs, ISDN, PPP, Frame Relay

protocols, and network troubleshooting. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CST* 182.

CST* 188 - Networking Fundamentals II

4 credits A continuation of CST* 133, this course provides the student with knowledge and skills to administer Local Area Networking concepts beyond the client/server topics of CST 133. More advanced information on routers, switches, wireless technology, cable management and the new Internet Protocol standard (IPv6) will be discussed. The process of designing and installing a Network are also discussed. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CST* 127 and CST* 149.

CST* 196 - Protocol Analysis

3 credits An advanced course intended for networking students who already grasp the general concepts of data communications and networking. Network architectures will be discussed from an OSI model perspective of the networking protocol stack, and a detailed analysis of the protocol will ensue using traces taken with the protocol analyzer.
Prerequisite(s): CST* 133 or CST* 180 or CST* 234.

CST* 234 - Network+

3 credits Prepares students to take the Network+ certification exam from the Computing Technology Industry Association (CompTIA). The Network+ exam provides a challenging test of networking knowledge and skills. This course provides all the information needed to perform key networking installation, configuration, and administration tasks.
Prerequisite(s): CSC* 101.

CST* 259 - JavaScript

4 credits Complements the CST* 152, Introduction to Web Page and Design course. Utilizes JavaScript programming techniques to enhance and animate the static HTML web pages learning in CST* 152 into vibrant and active web pages. Students will work with variables, functions, arrays, conditional operators, various object models, strings, event handlers and forms.
Prerequisite(s): CST* 152.

CST* 273 - Security Management Practices

3 credits Covers the identification of an organization's information assets and the development, documentation, and implementation of policies, standards, procedures, and guidelines that ensure confidentiality, integrity, and availability. This course will prepare the student to understand the planning, organization, and roles of individuals involved in security, develop security policies, and utilize management tools used to identify threats, classify assets, and rate vulnerabilities.
Prerequisite(s): CSA* 105, CSC* 101 or CET* 116 and ENG* 101.

CST* 280 - Network Security

3 credits Delivers a comprehensive introduction to network security issues, concepts, and technologist. Addresses the core technologies of access control, cryptography, digital signatures, authorization, network firewalls, and network security services. Covers issues in security policy and risk management. Examines in depth firewalls, intrusion detection/ prevention, and packet analysis, including email, database, Internet, and Intranet security. Lecture Hours: 3
Prerequisite(s): CSC* 101.

CST* 284 - Malware and Intervention

3 credits Provides the student with theoretical and practical issues surrounding computer viruses as well as intervention. It discusses malicious code, viruses, worms, backdoors, and Trojan horses on how they are introduced, how they function and how to intervene. It also discusses user-mode and kernel-mode rootkits.
Prerequisite(s): CSC* 101.

CST* 285 - Attacks and Counter Measures

3 credits Provides an overview of the actors, motives, and methods used in the commission of computer-related crimes. It describes the methods used by organizations to prevent, detect, and respond to these crimes. Offers overviews of Windows

(client/server).
Prerequisite(s): CSC* 101.

CST* 287 - Cryptography Fundamentals

3 credits Surveys cryptographic concepts and algorithms and their application to data security. Techniques include: private key cryptosystems, public key cryptosystems, and has functions. Commonly used algorithms include: DES; 3DES; IDEA; RSA; Diffie-Hellman; MD5; SHA; and DSS. Covers other algorithms that provide confidentiality, message authentication, key exchange, and digital signatures in applications such as client-server authentications, email security and web security.
Prerequisite(s): CSC* 101.

CST* 289 - Cyber Forensics

3 credits Provides students with the basic theoretical and practical foundations of investigating computer related or assisted crimes. Digital forensics will be discussed and outlined emphasizing computer forensics. Students will learn how to acquire digital evidence from storage media, authenticate the digital evidence, and analyze it. Topics covered include: deleted file recovery, auto-forensics, rules of evidence, law as it related to computer crimes, computer crime scene search and seizure, email forensics, and network forensics.
Prerequisite(s): CSC* 101.

CRIMINAL JUSTICE

CJS* 101 - Introduction to Criminal Justice

3 credits Surveys the evolution, principles, concepts, and practices of law enforcement. The course examines the structure and organization of courts in the administration of criminal justice in the U.S.A. Topics include the American model of criminal justice, police and the community, police and the constitution, and the American legal system.

CJS* 102 - Introduction to Corrections

3 credits A study of the history, philosophy, and evolution of corrections. The course examines the following processes used by our courts: probation, parole, treatment programs, and rehabilitation models. Punishment and the functions of our jails and prisons are examined. Additional topics include plea-bargaining, speedy trial, sentencing, prisoner's rights, victimization, and juvenile justice.

CJS* 105 - Introduction to Law Enforcement

3 credits Offers a comprehensive examination of the public safety and law enforcement functions of government in a modern society. Topics covered include the evolution, history, and philosophy of the law enforcement function: the role of the police in a democratic society: policy accountability, corruption and deviance: police operational principles and practices: and current problems confronting the police in their relationship to the community they serve. Lecture Hours: 3
Prerequisite(s): CJS* 101

CJS* 120 - Police and the Community

3 credits Covers the study, analysis and recommendations for reducing the severity of the major tension points between the police, the community and other government agencies as a method of responding to citizen demand for service. Students are taught the evolution of policing ranging from the political era to the professional era. Lecture Hours: 3
Prerequisite(s): CJS* 101

CJS* 211 - Criminal Law I

3 credits Studies the act(s) and mental state(s) that make up the elements of a crime. The analysis of these criminal elements will allow exploration into a wide spectrum of criminal law including felonies and misdemeanors. This is not a course specifically addressing Connecticut laws, although they will be discussed in comparison with other state and federal course decisions. Lecture Hours: 3
Prerequisite(s): CJS* 101 and ENG* 101 with a C- or better

CJS* 213 - Evidence and Criminal Procedures

3 credits Provides students with fundamental principles relative to procedures and processes within the criminal justice system as applied to arrest, the use of force, and search and seizure. The course provides the student with an opportunity to examine the various types of evidence and "proof" in regard to kind, degree, admissibility, competence, and weight. Lecture Hours: 3
Prerequisite(s): CJS* 101 and ENG* 101 with a C- or better

CJS* 220 - Criminal Investigation

3 credits Focuses on the fundamental principles and relative theories applicable to criminal investigation. The course includes the consideration of development of information sources, identification of witnesses and suspects, laws and techniques relative to interview and interrogation and admissions, and case preparation techniques. Lecture Hours: 3
Prerequisite(s): CJS* 101 or SOC* 101 with a C- or better

CJS* 225 - Forensic Science

3 credits A study of how the disciplines of Biology, Chemistry, Earth Science, Physical Science and Physics meld to form the field of forensic science. Focuses on developing the scientific vocabulary necessary for investigators to communicate with scientists. This course is meant to assist students who are pursuing a career in criminal justice. Emphasis of the course is placed on scientific analysis of data rather than detective work. Students will learn to appreciate how the major fields of science are utilized in solving crimes. Lecture Hours: 3
Prerequisite(s): CJS* 101 and ENG* 101 both with a C- or better

CJS* 280 - Victimology

3 credits This comprehensive course is designed to acquaint the student with the many issues faced by victims of crime. Topics covered will include victimology, restorative justice, victims' rights, victim impact statements, costs of victimization and other issues central to crime victim assistance. Students will also gain an understanding of how to address the needs of crime victims and act as advocates for victim issues. Lecture Hours: 3
Prerequisite(s): CJS* 101 with a C- or better

CJS* 290 - Criminal Justice Practicum

3 credits Offers participants the opportunity to put learned theory to practical application. Assignments are individualized and may vary. Those who are not currently employed in a field directly related to their program may be assigned either a research project/paper or a supervised internship experience. Students must complete 10-12 practicum hours per week (total 100-120 hours) over the course of at least 10 weeks. Those currently employed in a field directly related to their study will be required to relate their experiences through appropriae assignments. Students are required to
Prerequisite(s): CJS* 101 and ENG* 101 with a C- or better

CJS* 294 - Contemporary Issues in Criminal Justice

3 credits Students will be exposed to the contemporary issues that impact the functions and organization of criminal justice agencies in the United States. To9pics include racial profiling, torture, capital punishment, gender, social stratification, social class, politics, and use of force. The focus and content of the course will change each year to reflect the changes in political and social thought and their impact on public policy. Lecture Hours: 3
Prerequisite(s): CJS* 101 and ENG* 101 both with a C- or better

POL* 210 - Constitutional Law for Criminal Justice

3 credits Provides students with an overview of the U.S. Constitution including history and development, focusing on the Fourth, Fifth, Sixth, Eighth, and Fourteenth Amendments related to citizen rights as well as police and course procedures. Procedural due process, states' rights, and civil liberties will be examined. Lecture Hours: 3
Prerequisite(s): ENG* 101 with a C- or better

SOC* 240 - Criminology

3 credits Examines the nature and cause of crime, approaches to the study or crime, and its treatment and prevention. The sociology of criminal law and the nature of criminal behavior are also examined. Lecture Hours: 3
Prerequisite(s): ENG* 101 with a C- or higher, and SOC* 101 or CJS* 101 with a C- or higher

SOC* 241 - Juvenile Delinquency

3 credits Investigates the multifaceted concepts of juvenile delinquency. Explores the relationship between social attitudes and definitions of youthful law violations. Examines some of the popular causal factors of juvenile delinquency. Lecture Hours: 3
Prerequisite(s): CJS* 101 or SOC* 101 with a C- or better

CULINARY ARTS

HSP* 101 - Principles of Food Preparation

3 credits Students will receive a foundation in basic concepts and methods of cooking with exposure to all facets of food service operations. Lecture, demonstrations and hands-on experience in food production will be used. In the food lab, students will learn proper methods in broiling, grilling, sauteing, roasting and baking of meat, fish, poultry and vegetables. Students will learn meat and fish fabrication, proper knife skills, tool and equipment use, weights, measures and recipe conversion. Menu planning, purchasing and the serving of food will be covered. Lecture Hours: 1 Lab Hours: 3
Prerequisite(s): Eligiblility for: MAT* 095 and ENG* 091. Pre-or co-requisite: HSP* 109 **Corequisite(s):** HSP* 109

HSP* 103 - Principles of Baking I

3 credits Introduces baking and pastry arts with intensive, hands-on laboratory training in a quantity food environment. Concentrates on the production and quality control of baked goods that are used in hotels, restaurants, resorts, and institutions. Laboratory classes emphasize basic ingredients and production techniques for breads, rolls, folded doughs, batters, basic cakes, pies, and creams. Lecture Hours: 1 Lab Hours: 3
Prerequisite(s): MAT* 095 and ENG* 091. Pre- or co-requisite of HSP* 109 . **Corequisite(s):** HSP* 109

HSP* 107 - Icing Artistry I

3 credits Introduces the fundamentals and necessary skills needed for commercial cake decorating. Lecture Hours: 1 Lab Hours: 3

HSP* 109 - Food Safety Certification

1 credits Presents sanitation, safety, and maintenance challenges encountered in the food service industry. Investigates causes and prevention of food-borne illnesses. A nationally recognized certificate will be awarded to students who pass the certification exam.

HSP* 112 - Advanced Food Preparation

4 credits Emphasizes research of recipes, preparation of food, purchase orders, requisitions, and income and expense summaries for each menu. Students prepare full-course menus in quantity. Students will serve in various positions in the dining room and kitchen areas.
Prerequisite(s): HSP* 101 with a C or better.

HSP* 135 - Service Management

3 credits Introduces the students to the basic principles of food and beverage management with a focus on front of the house training and development. Topics include dining room/style, organization, customer relations, staff challenges, serving beverages and modern management techniques. Students will gain experiences in basic set-up, service skills, dining etiquette training and table-side preparation. Training for intervention procedures by servers of alcohol (tips), a Nationally recognized certification program. Sanitary practice and compliance with laws and ordinances of the department of health are enforced. Lecture Hours: 3

HSP* 201 - International Foods

4 credits Student teams plan, prepare, and serve full-course international menus. Emphasizes organization, showmanship, and supervision. Requires oral and written reports on food from different countries.
Prerequisite(s): HSP* 112 and HSP* 135 both with a C or better.

HSP* 210 - Buffet Catering

4 credits This course is designed to teach the crucial understanding of the advantages and primary considerations in setting up a catering operation and skills needed for on-and-off-premise catering business. Focus will be on the fundamentals and styles of catering operations, menu design, food and beverage pricing, service staffing, equipment and the execution of actual catering events. Students will design, develop and execute a catering event(s) on campus. Lecture Hours: 1 Lab Hours: 5.5
Prerequisite(s): HSP* 112 and HSP* 135 both with a C or better

HSP* 215 - Principles of Baking II
3 credits Focuses on the preparation of advanced pastries and classical desserts, including the preparation of petit fours, sugar and chocolate work, ice cream, and European tarts and torts.
Prerequisite(s): HSP* 103 with a grade of C- or higher and HSP* 109.

HSP* 216 - Artisan Bread
3 credits Focuses on the formulating, preparation, packaging, and pricing of commercially produced artisan bread. Students will learn how to work with non-yeast ferments, levian, commercial starters, enriched dough, and naturally leavened breased while maintaining a professional work environment. Emphasis will be placed on the science of bread production as well as the 'art of baking.' Whole grain flours, laminated dough, shaping loaves, boules, braids, etc.will be studied.
Prerequisite(s): HSP* 103 with a C- or better

HSP* 225 - Principles of Baking III
3 credits Course has both a lecture and laboratory component on the principles, techniques, and materials used in upper level bake shop and competition piece production. Units covered include sculpture of chocolate, sugar, pastillage, marzipan, salt dough, and dessert presentation.
Prerequisite(s): HSP* 215 with a grade of C- or higher

HSP* 230 - Sustainable Food Service Management
3 credits This course is designed to help students understand the complex issues surrounding food that ultimately impact sustainability. Food impacts all areas of our lives including the environment, local economies, global economy, social well-being, and human health. Topics include understanding sustainable food, local and season production, socially just and unjust means of producing foods, processed foods, and food choices. Lecture Hours: 3
Prerequisite(s): HSP* 100 with a grade of C- or higher.

HSP* 290 - Classical Cuisine
3 credits This course provides further techniques in flavor development, fabrication, presentation of hot and cold specialty foods in garde manger and classical French design. Students will prepare classical menus, work with forcemeats, mousses, hot and cold hors d' oeuvres, and learn techniques in cold platter presentations. Emphasis will be placed on necessary skills development for a competitive role for a future culinary competition, if applied. Lecture Hours: 1 Lab Hours: 3.5
Prerequisite(s): HSP* 201 or HSP* 210 and HSP* 215 all with a grade of C- or higher.

HSP* 296 - Cooperative Education/Work Experience
3 credits Offered: Spring
Provides an opportunity for students to apply classroom theory in an actual work setting. Students may be placed in a variety of work settings as it relates to their program of study including corporations, institutions, restaurants, hotel and conference settings. The experience should be consistent to the career goals of students. The student must complete a minimum of 150 hours of unpaid internship or 300 hours of work for paid placement in addition to attending classroom sessions.
Prerequisite(s): Minimum GPA of 2.25 and completion of the first semester courses in the plan of study and permission of program coordinator.

DATA SCIENCE

DTS* 201 - Data Science in R

3 credits An introduction to the field of knowledge extraction from data. Explores the data science life-cycle, including discovery and question formulation, data collection and cleaning, exploratory data analysis and visualization, statistical inference and prediction, communication and evaluation. Focuses on quantitative critical thinking, key principles and techniques needed to carry out this cycle. No prior programming experience required. Lecture Hours: 3
Prerequisite(s): MAT* 167 with a grade of C or higher.

DTS* 202 - Visual Analytics

3 credits Focuses on the best practices to design and generate graphical representation of data. Various techniques, along with different software tools will be investigated to create visualizations based on large collections of data that is available through public repositories. Best practices and various techniques will be applied in each main step of the visualization process that includes: data preparation (e.g., cleaning, consolidation), creation of the visualization, evaluation and presentation. Attention will be given in defining the goals of a visualization, in providing insight abut the collection of data, and in communicating effectively the findings. Lecture Hours: 3
Prerequisite(s): MAT* 167 with a grade of C or higher.

DTS* 220 - Introduction to Machine Learning

3 credits Focuses on machine learning as an integral tool for data science, including how to use data to automatically understand the world, make complex decisions, and even predict the future. A suitable programming language will be used to learn and apply fundamental machine learning algorithms. Lecture Hours: 3
Prerequisite(s): DTS* 201 with a grade of C or higher.

DENTAL HYGIENE

DNT* 105 - Introduction to Dental Hygiene I

1 credits Provides students with a survey of contemporary issues encountered by health care professionals. Emphasis is placed upon personal oral self care, dental specialties, ethical and legal aspects of dentistry, an introduction to oral pathology, disease transmission, and infection control, principles and techniques of disinfection and sterilization, and an introduction to the dental hygiene treatment appointment.

DNT* 106 - Introduction to Dental Hygiene II

1 credits Continues the study of Dental Hygiene I (DNT* 105) and provides students with a survey of contemporary issues encountered by dental health care professionals. Emphasis is placed on professional standards, health promotion, disease prevention, review of dental specialties and ethical issues that are encountered by dental hygienists.
Prerequisite(s): DNT* 105

DIAGNOSTIC MEDICAL SONOGRAPHY

DMS* 100 - Principles of Sonography

4 credits Introduces the principles of diagnostic medical sonography. Lectures will include sonographic cross-sectional anatomy, medical terminology, professional and ethical behavior, patient care, equipment and controls, basic acoustic physics, and scanning protocols. Students will learn how to recognize anatomy on sonographic images and will perform basic sonographic exams in the on-campus clinical lab.
Prerequisite(s): Acceptance into the DMS Program; BIO* 211, BIO* 212, ENG* 101, MAT* 175, PHY* 111.

DMS* 120 - Abdomen/Small Parts Sonography I

3 credits Through lab and lecture, this course focuses on the sonographic appearance of disease processes in the abdomen and in superficial organs. Instruction will cover indications for scanning, testing, patient history, laboratory values, a review of normal anatomy, the grayscale and Doppler appearance of pathology, and necessary scanning modifications when pathology is noted. Differential diagnoses, treatments, patient outcomes, and the use of other imaging modalities will also be discussed. Lecture

Hours: 2 Lab Hours: 1
Prerequisite(s): DMS* 100. **Corequisite(s):** DMS* 121 and DMS* 122.

DMS* 121 - Obstetrics and Gynecology Sonography I

3 credits Through lab and lecture this course will focuses on the sonographic appearance of the non-gravid and gravid female pelvis. The appearance of gynecological pathologies and the application of Doppler will be covered. The normal and abnormal developing fetus in the first trimester will be included with a review of embryology. Discussion will include correlation with laboratory findings and related imaging, patient outcomes, and formulation of differential diagnoses. Ultrasound measurements, protocols, and techniques specific to gynecological and obstetrical sonography will be discussed. Lecture Hours: 2 Lab Hours: 1
Prerequisite(s): DMS* 100. **Corequisite(s):** DMS* 120, DMS* 122.

DMS* 122 - Clinical Practicum I

2 credits Students will be assigned to a clinical site for approximately 224 hours (two days per week throughout the semester). With supervision, students will assist with patient care, patient interviews, and sonographic exams.
Prerequisite(s): DMS* 100. **Corequisite(s):** DMS* 120, DMS* 121.

DMS* 123 - Vascular Sonography I

3 credits Educates the student in the fundamentals of vascular sonography and pathology. Instruction will cover vascular embryology, hemodynamics, color and spectral Doppler, imaging protocols, pathophysiology, etiology of disease, and congenital and acquired variants and abnormalities. Focus will be on extracranial and extremity venous and arterial studies. Students will demonstrate proper techniques while performing vascular testing in the on-campus clinical lab. Lecture Hours: 2 Lab Hours: 1
Prerequisite(s): DMS* 120, DMS* 121, DMS* 122. **Corequisite(s):** DMS* 124, DMS* 125.

DMS* 124 - Sonographic Physics and Instrumentation I

4 credits Covers the principles of sonographic physics. Instruction includes sound waves, transducers, processing, recording, resolution, hemodynamics, Doppler principles, artifacts, biological effects, and quality assurance. Students will become proficient in optimizing techniques using the principles of sonographic physics in order to obtain high-quality diagnostic sonographic images.
Prerequisite(s): DMS* 120, DMS* 121, and DMS* 122. **Corequisite(s):** DMS* 123 and DMS* 125.

DMS* 125 - Clinical Practicum II

2 credits Students will be assigned to a clinical site for approximately 224 hours (two days per week throughout the semester). Students will perform complete sonographic exams with supervision, optimize the sonographic images, use advanced Doppler functions, and identify when artifacts and/or pathology are present.
Prerequisite(s): DMS* 120, DMS* 121, and DMS* 122. **Corequisite(s):** DMS* 123, DMS* 124.

DMS* 220 - Clinical Internship I

4 credits Students will be assigned to a clinical site for approximately 432 hours (five days per week throughout the course). With supervision, students will independently conduct patient interviews and perform sonographic exams. Students will identify common pathology, describe sonographic findings, and begin to formulate differential diagnoses.
Prerequisite(s): DMS* 123, DMS* 124, DMS* 125.

DMS* 221 - Abdomen/Small Parts Sonography II

3 credits Through lab and lecture, this course will focus on the sonographic appearance of disease processes in pediatrics, male pelvic organs, the gastrointestinal system, and superficial structures. Instruction will cover indications for testing patient history, laboratory values, a review of normal anatomy, the grayscale and Doppler appearance of pathology, and necessary scanning modifications when pathology is noted. Differential diagnoses, treatments, patient outcomes, and the use of other imaging modalities will also be discussed. After successful completion of the program, students will be eligible to take their sonography credentialing examination. Lecture Hours: 2 Lab Hours: 1
Prerequisite(s): DMS* 120. **Corequisite(s):** DMS* 222, DMS* 223.

DMS* 222 - Vascular Sonography II

3 credits A continuation of Vascular Sonography I and educates the student in advanced vascular sonography and pathology. Didactic and lab instruction will cover intracranial and visceral vascular anatomy and pathophysiology, vascular variants, embryology, pharmacology, etiology of disease, physiological vascular testing, surgical procedures, vascular imaging modalities, analysis of waveforms, and statistics. After successful completion of the program, students will be eligible to take their sonography credentialing examination. Lecture Hours: 2 Lab Hours: 1
Prerequisite(s): DMS* 220. **Corequisite(s):** DMS* 221, DMS* 223.

DMS* 223 - Clinical Practicum III

CALT: Critical Analysis/Logical Thinking
3 credits Students will be assigned to a clinical site for approximately 336 hours (three days per week throughout the semester). Students will review requisitions, conduct patient interviews, and perform advanced sonographic exams with supervision. Students will apply critical thinking skills to identify complex sonographic pathologies, adjust scanning technique and protocol, analyze sonographic findings, and formulate differential diagnoses.
Prerequisite(s): DMS* 220. **Corequisite(s):** DMS* 221, DMS* 222.

DMS* 224 - Clinical Internship II

1 credits Students will be assigned to a clinical site for approximately 104 hours (five days per week throughout the course). Students will review requisitions, conduct patient interviews, perform advanced sonographic exams with supervision and apply critical thinking skills to analyze the findings and formulate differential diagnoses.
Prerequisite(s): DMS* 221, DMS* 222, DMS* 223.

DMS* 225 - Obstetrics and Gynecology Sonography II

3 credits Focuses on the sonographic appearance of obstetrical abnormalities in the second and third trimester. Laboratory values, patient history, differential diagnosis and outcomes will be presented. The role of ultrasound in maternal and fetal management will be discussed. Instruction will include prenatal testing, procedures, fetal monitoring, therapy and Doppler applications. Abnormalities specific to multigestations will also be presented. Students will become skilled in recognizing fetal abnormalities.
Prerequisite(s): DMS* 224. **Corequisite(s):** DMS* 226, DMS* 227.

DMS* 226 - Advanced Sonography Seminar

3 credits Explores the advanced uses of sonographic technology, including 3D/4D, esastography, contrast agents, and radiofrequency ablation. Sterile technique and the role of the sonographer in guided interventional procedures will be discussed. Indications, risks, and benefits of procedures will be covered, as well as associated disease processes. Protocols for FAST exams in the Emergency Department will be reviewed and sonography for detection of foreign bodies will be introduced. This course will incorporate journal articles and the student will perform a literature review on an advanced sonographic technology or a new emerging trend for their capstone project.
Prerequisite(s): DMS* 224. **Corequisite(s):** DMS* 225, DMS* 227.

DMS* 227 - Clinical Practicum IV

3 credits Students will be assigned to a clinical site for approximately 336 hours (three days per week throughout the semester). With indirect supervision, students will perform a variety of sonographic studies at the clinical site with entry-level competence. Students will consistently obtain high quality diagnostic images in a reasonable timeframe while optimizing all technical controls, documenting all pathology, modifying the standard protocol as needed, and ensuring that all documentation is complete. Students will consistently complete sonographer's worksheets and present cases to the interpreting physician.
Prerequisite(s): DMS* 224. **Corequisite(s):** DMS* 225, DMS* 226.

DRAFTING

ARC* 133 - Technical Drafting

3 credits Introduces the principles of engineering drawing. Covers the use of drafting instruments, good lettering practices, geometric construction, orthographic projection, sectional and auxiliary views, surface developments, machine screw threads, dimensioning, fits, and tolerances. Introduces geometric dimensioning and tolerancing. Lecture Hours: 2 Lab Hours: 2

DRUG AND ALCOHOL RECOVERY COUNSELOR

DAR* 101 - Public Health Issues: Abuse & Addiction
3 credits Students will explore key topic areas in the addictions field such as: models and theories of addiction and recovery; history of legislation and regulation; self-help and evidenced-based approaches to recovery. This course provides a comprehensive overview of public health problems related to substance misuse, abuse and dependence. Study areas include trends in substance use, co-occurring disorders, process addictions, relevant national drug policies, the role of the media, HIV/AIDS and other contagions, domestic violence, fetal alcohol spectrum disorder and costs to society. Students will be introduced to the prevention, harm reduction, and treatment continuum and its application to a public health model.
Prereq/Corequisite(s): ENG* 101.

DAR* 111 - Addiction Counseling I
3 credits Students will learn, practice, and develop counseling skills such as attending, reflecting, active listening, and confrontation. This course presents the fundamental theories of addiction counseling and the relationship of theory to skills. Students reflect on their roles as counselors and define the qualities, knowledge, and skills essential to become a competent, ethical, culturally-aware counselor-in-training. Combines didactic and experiential learning.
Prereq/Corequisite(s): ENG* 101

DAR* 112 - Group Counseling: Theory & Techniques
3 credits Introduces the concepts and theories of group counseling, group dynamics, and group developmental stages. Students learn about different types of groups and how groups can be used to treat addiction in a multicultural environment. Students learn to distinguish between and work with group processes and content. Students have the opportunity to examine their own performances as group members and facilitators. Combines didactic and experiential learning.
Prerequisite(s): DAR* 111. **Prereq/Corequisite(s):** ENG* 101 or higher or permission of coordinator.

DAR* 114 - Introduction to Family Systems
3 credits Presents an overview of the family. Focuses on families with addictions by investigating the family as a system, the family life cycle, multicultural perspectives of family, and family roles and rules. Introduces family counseling theories, goals, strategies, and techniques. Students learn how to complete a genogram and how to use this tool as a counseling strategy.
Prerequisite(s): DAR* 111. **Prereq/Corequisite(s):** ENG* 101.

DAR* 117 - Substance Abuse Prevention
3 credits Provides a comprehensive overview of the prevention field. The course will explore prevention theory and research, models of prevention, performance domains for prevention certification, ethics, cultural competencies, application of theory and research to program planning.
Prereq/Corequisite(s): ENG* 101 or permission of coordinator.

DAR* 119 - Addiction Counseling in a Correctional Setting
3 credits Provides an examination of addiction treatment across the spectrum of correctional settings. Students will understand the link between addiction and criminal behavior as well as the avenues for entering recovery via the correctional system. Focused study will investigate the evidenced-based treatment approaches that addictions counselors in correctional settings must be capable of implementing. Combines didactic and experiential learning opportunities.
Prerequisite(s): DAR* 111. **Prereq/Corequisite(s):** ENG* 101 or higher.

DAR* 158 - Biology of Addiction
3 credits Studies how and why drug abuse impacts both the human body and society. Students are introduced to the process of neurotransmission and learn how each class of psychoactive substances alters neurotransmission and homeostasis. The course

examines the consequences of short- and long-term substance use, abuse, and addiction on all major bodily systems and the fetus. **Prereq/Corequisite(s):** ENG* 101.

DAR* 212 - Multicultural Addiction Counseling

3 credits Students will be introduced to major concepts essential to the understanding of culture, race, and diversity within the context of addiction counseling. Students will develop awareness of their own and others' cultural communication styles as well as values and beliefs regarding the use of substances. Students will practice conducting culturally competent assessments, recovery plans, and counseling skills for the treatment of substance use disorders. Combines didactic and experiential learning opportunities.
Prerequisite(s): DAR* 111. **Prereq/Corequisite(s):** ENG* 101 or higher or permission of coordinator.

DAR* 213 - Addiction Counseling II

3 credits Provides an overview of the major counseling theories and figures, including Gestalt, Reality, Person-Centered, and Rational-Emotive. Addresses the techniques and professional practices related to each theory. Theory and practice will focus on such current evidence-based treatment models as Cognitive-Behavioral, Motivational Interviewing, and Solution-Focused. Students apply basic counseling skills developed in DAR* 111 to a variety of evidence-based models and explore the theories and techniques most appropriate to specific treatment settings, client populations, and cultures. Combines didactic and experiential learning.
Prerequisite(s): DAR* 111. **Prereq/Corequisite(s):** ENG* 101 or higher or permission of coordinator.

DAR* 220 - Co-Occurring Disorders Counseling

3 credits Students will be introduced to major concepts essential to the understanding of co-occurring substance use disorders and mental health disorders. Students will develop awareness of the unique challenges that face clients who are struggling with multiple diagnoses. Students will practice conducting competent assessments, recovery plans, counseling skills and continuum of care issues relevant to the recovery process for this special population. Combines didactic and experiential learning.
Prerequisite(s): DAR* 111. **Prereq/Corequisite(s):** ENG* 101 or higher or permission of coordinator.

DAR* 251 - Counseling Internship I

6 credits Provides students with the experience of 225 hours per semester in a substance use disorder treatment facility, weekly seminar and other approved activities under the joint supervision of the DARC program and a credentialed supervisor at the facility. Students will observe the treatment process from intake to discharge. Students will observe, practice, and develop competency in the 8 domains of addiction counseling. As students develop increased competence, they will progress from active observers to co-counselors, and then to counselors. To enhance the field experience, students will continue academic study during a weekly seminar. Students will be expected to reflect on their fieldwork, participate in clinical supervision as well as peer group interaction and continue their research in support of counseling theories.
Prerequisite(s): DAR* 101, DAR* 111, DAR* 112 and DAR* 158; ENG* 101 with a "C" or better within five years and permission of the program coordinator. Internship classes must be completed in consecutive semesters. If a student is unable to complete DAR* 252 in the spring following DAR 251, DAR 251 will need to be taken again. **(This is the selective admission component of the DARC program which begins in the fall semester).**

DAR* 252 - Counseling Internship II

6 credits Continues DAR* 251; students extend their field placements, working fifteen hours per week in the same substance use disorder treatment facility. Students refine their counseling skills and assume increased responsibility for implementing the 8 domains. During the semester, students function as a primary addiction counselor for one or more clients. The classroom component of this internship prepares students for the certification exam and case presentation and allows ongoing personal reflection and growth.
Prerequisite(s): DAR* 251 and permission of the DARC program coordinator. DAR 252 must be taken in the spring semester immediately following DAR* 251.

EARLY CHILDHOOD EDUCATION

ECE* 101 - Introduction to Early Childhood Education

3 credits A study of the historical, philosophical and social perspectives of early education and care. The importance of child development from birth to age eight years is emphasized. Students will observe children and early education and care settings. The course acquaints students with trends in educational settings, curriculum planning based on the knowledge of developmentally appropriate teaching practices and explores the role of the teacher in an early childhood learning environment. **Prerequisite(s):** Eligible for ENG* 063 or higher.

ECE* 103 - Creative Experiences/Children

3 credits Provides a variety of art experiences suitable for young children. Includes experimentation with and the use of various media, techniques, and methods. Emphasis is placed on the role of creative experiences in early childhood development. The selection of and approach to art experiences, media, and materials is related to the conceptual framework of the course. This ensures that the adult students are directly involved in the creative experience and can effectively lead others to it.

ECE* 106 - Music and Movement for Children

3 credits Explores young children's musical growth through singing, rhythmic and dramatic play, use of classroom instruments, recorded music, and the study of children's natural fundamental movements. Teaching strategies will be analyzed through videotapes and film.

ECE* 109 - Science and Math for Children

3 credits Prepares teachers to introduce science to young children in the classroom and in the field. Teachers also answer questions on the natural world. Approximately one-third of this course consists of field trips. Topics include ecology, geology, astronomy, and meteorology.

ECE* 110 - Using Computers in ECE

3 credits Covers the design and use of microcomputers, including the selection of software used in a variety of regular and special education settings.

ECE* 141 - Infant and Toddler Growth and Development

3 credits Prepares students to care for and teach infants and toddlers. Topics include typical infant and toddler development, developmental domains, and curriculum development and adaptation.

ECE* 142 - Developmental Interventions for Infants and Toddlers at Risk

3 credits Presents typical and atypical infant and toddler development. Current issues and trends in family-centered care will be discussed. Intervention techniques and various applications and environments for intervention will be reviewed.

ECE* 176 - Health, Safety & Nutrition

3 credits Examines the relationship between health, safety and nutrition and child development. Emphasis will be on the strategies needed to implement a safe, healthy and nutritionally sound program. Community agencies and resources that benefit children and families will be explored.

ECE* 180 - CDA Credential Preparation

3 credits Designed for childcare providers who wish to obtain a Child Development Associate (CDA) Credential. Students study the national standards for evaluation and accreditation by the Council of Early Childhood Professional Recognition and become familiar with the Direct Assessment System. Students analyze the CDA Competencies and Functional Areas and their integration into child development theory and practice. Coursework assists students to develop their professional resource file, complete other necessary documentation, and prepare for the final assessment process. Students will apply for the CDA Credential with one of the following endorsements: center-based preschool, center-based infant/toddler, family day care, or home visitor.

ECE* 181 - CDA Credential Preparation II

3 credits Designed for childcare providers who are preparing for their Child Development Associate (CDA) Credential through the Council for Professional Recognition in Washington, D.C. under its present requirements. The student will attend a weekly

seminar and a minimum 30 hours of fieldwork in a licensed early childhood setting. Course instructor will conduct onsite observation visits.

ECE* 205 - Creative Activities and Media

3 credits Provides teachers of young children an in-depth involvement in the art experience and an understanding of how art is integral to the curriculum for young children. Emphasizes integrating art experiences with number concepts, reading readiness, literature, social studies, science, and music and movement. Trips to an art gallery and an artist's studio supplement classroom experiences.
Prerequisite(s): ECE* 103.

ECE* 206 - Administration and Supervision of Early Childhood Programs

3 credits Explains the leadership role in the administration and supervision of private, public, and federally funded schools. Addresses the various philosophies, comprehensive programs, methods of managing staff and effective programs, regulations and efficient means of enforcement, and institutional facilities and equipment in a school.

ECE* 210 - Observations, Participation and Seminar

3 credits Promotes objectivity in observing and interpreting children's behavior, allowing observation of developmental characteristics and increasing awareness of typical and atypical patterns of behavior. Observation and participation placements for the study of young children are provided at the GCC Early Learning Center and at area preschools. Students observe and participate in their respective placement locations for sixty hours to gain experience and competency working with young children. Weekly seminars devoted to issues in observing and understanding children's development expand students' observation and participation experiences.
Prerequisite(s): PSY* 122.

ECE* 212 - Administrative Leadership in Early Childhood Programs

3 credits Examines the multi-dimensional roles of the early childhood program administrator. Emphasis will be on effective leadership and the impact of communication and interpersonal skills, decision-making and participatory management tools, how to conduct effective meetings, formation of partnerships with families, child welfare advocacy, and strategic approaches to initiating and implementing change.

ECE* 213 - Finance for Early Childhood Program

3 credits Focuses on the financial aspects of administering an early childhood program. It will explain and discuss the various aspects of budgeting including tools that are commonly used in all businesses as well as tools that are specific to ECE programs. It will address the "trilemma" inherent to programs with strategies to think about balancing cost, quality and affordability.

ECE* 231 - Early Language and Literacy Development

3 credits Introduces language and literacy development in young children. Students explore early childhood language arts curricula, including speaking, listening, writing, and reading skills. The influence of a child's cultural background and experiences on emerging literacy development is explored. The teacher's role in creating and fostering an environment that engages children in developmentally appropriate language arts experiences will be covered. Course content includes specific strategies for teaching reading and other literacy skills, the role of school-family partnerships in developing literacy, identification of students who are at risk, and reading assessment methods.

ECE* 241 - Methods and Techniques for Infant/Toddler

3 credits Presents both the theoretical knowledge and practical skills necessary to create an infant/toddler curriculum in an inclusive environment. It provides information on how the playful interaction of infants/toddlers with their surroundings helps them to discover what the world is made of, how it works, and what they can do with their emerging skills. Students learn how the routines and organization of a child's inside-outside environment facilitate a child's learning. The successful student will demonstrate a knowledge of program planning and implementation, and an understanding of the role of the physical environment in creating quality development programs for typical and atypical infants and toddlers.

ECE* 295 - Student Teaching

6 credits Provides guided observation of, participation in, and supervised student teaching at NAEYC-accredited centers or kindergartens. The purpose of student teaching is to apply child development theory to a learning environment and to work with children under close supervision. Students will manage a classroom independently and plan, organize, implement, and evaluate classroom activities. Students will complete a minimum of 200 hours of student teaching. Weekly seminars devoted to communicating issues in Early Childhood Education and the teaching experience of students will extend the student teaching experience.
Prerequisite(s): ECE* 101, ECE* 210, ECE* 231, PSY* 122, SOC* 111.

EDU* 201 - Introduction to Teaching Professions

3 credits Provides prospective high school, middle school and art teachers with an introduction to the teaching profession. Students are required to spend a minimum of 40 hours of fieldwork in an approved classroom. Emphasis is placed on the human development during the middle and high school years and theories, history, philosophies, and processes relevant to teaching and learning as a profession. Patterns of learning and unique ways of learning will be explored. Focuses on social-economic, political and ecological factors and their impact on student's learning. Students will have opportunities to observe in multicultural and inclusive classrooms and the opportunity to evaluate their readiness and aptitude to be a teacher.

EDU* 202 - Principles of Education

3 credits Provides prospective teachers with an introduction to the teaching profession. Students are required to spend a minimum of 40 hours of fieldwork in an approved classroom. Emphasis is placed on the varied roles that teachers play; the history and philosophy of education; current themes in education; learning theories; classroom management issues; relationship between the schools and community. Students will have opportunities to observe in multicultural and inclusive classrooms and the opportunity to evaluate their readiness to be a teacher.

PSY* 214 - Advanced Child Growth and Development

3 credits Develops a theoretical basis for child program analysis. The first half of the course concentrates on personal aspects of child development by studying the works of primary theorists: Piaget, Erickson, Freud, Watson, and Skinner. The second half of the course covers such social aspects of child development as family interrelationships and social values. Lecture Hours: 3
Prerequisite(s): PSY* 122

EARLY CHILDHOOD - SPECIAL EDUCATION

ECS* 107 - Introduction to Exceptional Children I

3 credits Familiarizes the student with the trends, issues, psychological and behavioral characteristics of exceptional learners and their education. Emphasis will be placed on classroom practices as well as the history, laws, concepts, practices and terminologies used by professionals in the field. The completion of a portfolio is required. Students are also expected to participate in a 25 hour practicum in a National Association for the Education of Young Children (NAEYC) accredited setting.

ECS* 112 - Introduction to Early Childhood Special Education

3 credits Focuses on early intervention for infants and toddlers from birth through age two and on preschool special education for three- to five-year-old children with disabilities, developmental delays, or serrations in development. This course presents successful interventions for various kinds of children and families. Furthermore, it presents federal legislation pertaining to Early Childhood Special Education that provides funding for the services that young children with disabilities and their families need.

ECS* 113 - Creative Art/Play for Exceptional Children

3 credits Provides adaptive experiences in two- and three-dimensional art activities using everyday materials with an emphasis on process over product. Emphasizes the integration of art projects with math, reading, literature, social studies, and music. Demonstrations, workshop sessions, and visits to art galleries supplement classroom experiences.

ECS* 121 - First Aid, CPR, and Medication Administration

1 credits Trains students to handle many basic medical emergencies and outlines procedures to follow in assisting an injured or suddenly ill person until professional emergency medical services can be obtained. It also familiarizes students with the legal aspects of First Aid, CPR, and Medication Administration. Examples are derived from real life situations.

ECS* 123 - Introduction to Family Support and Respite Care

4 credits Provides students with the special needs background, communication skills, attitudes, and techniques that will enable them to provide respite for families in crisis. Students learn the laws and dynamics of working with social services agencies to determine families that can benefit from respite care. Students are required to spend fifty hours demonstrating their proficiency in a practical setting. Students are also required to obtain certification in First Aid, CPR, and Medication Administration.

ECS* 207 - Introduction to Exceptional Children: Seminar II

3 credits Introduces the field of early childhood special education and offers an overview of typical and atypical child development including programs for and assessment of young children with special needs. Emphasizes the use of play to facilitate the development of cognitive, language, motor, social, and emotional skills.

ECS* 230 - Student Teaching Special Education

6 credits Students will complete a minimum of 200 hours under the supervision of a supervising teaching to develop skills in management, environmental planning, and curriculum development. Student teachers will assume some of the teaching responsibilities for the class as they develop daily activities with individual education plans (IEPs) that include class management and assessment. Students will also be required to attend weekly seminars to explore the relationship between pedagogical theory and research, and their relationship to practice in typical and atypical classrooms. Connections will be drawn in the areas of professionalism; preparing, implementing, and evaluating instructional objectives, educational curricula and strategies; and student engagement and classroom environment.
Prerequisite(s): ECS* 107, ECS* 112, PSY* 122; co-requisite: ECS* 207.

EARTH SCIENCE

EAS* 102 - Earth Science

SK: Scientific Knowledge and Understanding
3 credits Introduces the four main branches of Earth Science: Geology (solid earth), Oceanography (oceans), Meteorology (weather), and Astronomy (stars and universe). Investigates the dynamic nature of Earth processes to understand human beings' place in the universe.

EAS* 106 - Natural Disasters

SK: Scientific Knowledge and Understanding
3 credits Provides an introduction to the causes, distribution, and consequences of Earth's natural hazards and disasters including: earthquakes; volcanoes; hurricanes; severe storms; floods; extraterrestrial impacts; and events related to global climate change. The course will focus on naturally-occurring disasters and will also consider the role of anthropogenic (human) activities in exacerbating and/or mitigating these processes and events.

EAS* 110 - The Earth Sciences

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Introduces the four main branches of Earth Science: Geology (solid earth), Oceanography (oceans), Meteorology (weather), and Astronomy (stars and universe). Investigates the dynamic nature of Earth processes to understand human beings' place in the universe. Lecture Hours: 3 Lab Hours: 3

ECONOMICS

ECN* 101 - Macroeconomics

SP: Social Phenomena/Knowledge and Understanding

3 credits Presents major topics in macroeconomics: markets, households, business, government and foreign sectors, and the effects of the above on employment and national income. Evaluate fiscal and monetary policies and their impact on economic growth of advanced and developing nations.

Prerequisite(s): ENG* 101, MAT* 085 or higher.

ECN* 102 - Microeconomics

SP: Social Phenomena/Knowledge and Understanding

3 credits Evaluates the best available tools of economic analysis which explain the pricing mechanism and structure of markets. Emphasizes the contribution and usefulness of the theoretical methods. Discusses supply and demand analysis, the economics of firms, the determination of product and factor prices under varying market structures, the pricing and employment of resources, and market imperfections.

Prerequisite(s): ENG* 101, MAT* 085 or higher.

ELECTRICAL ENGINEERING TECHNOLOGY

EET* 103 - Fundamentals of Electricity

4 credits Surveys basic electricity, including generation, measurement, and analysis of networks involving DC and AC sources. The laboratory component includes electrical experiments in basic DC and AC circuits. Lecture Hours: 3 Lab Hours: 2

EET* 110 - Electric Circuits I

4 credits Introduces DC and AC circuit fundamentals, including Ohm's Law Kirchhoff's Laws power and energy relationships. Students will learn to analyze DC and AC series, parallel, and series-parallel circuits using basic circuit analysis techniques. Students will also learn the fundamentals of capacitors, inductors and transformers and analyze DC and AC circuits with these components. In the lab, students will learn to use instrumentation including power supplies, analog multimeters, digital multimeters, function generators, counters and oscilloscopes. Students will also construct a variety of circuits and utilize basic circuit analysis techniques to analyze these circuits. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): MAT 095 or higher or mathematics placement into MAT* 137 or higher.

EET* 114 - Electric Circuits II

4 credits Presents advanced network analysis techniques for complex DC and AC circuits. Includes advanced network analysis techniques of mesh analysis, nodal analysis, superposition principle, Thevenin's, Norton's, and maximum power transfer theorems. Students will also learn the fundamentals of current sources, bridge circuits, series and parallel resonant circuits, passive filters and three phase systems. In the lab, students will construct a variety of circuits and utilize advanced network analysis techniques to analyze these circuits. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): EET* 110. **Corequisite(s):** MAT* 175.

EET* 136 - Electronics I

4 credits Presents a variety of discrete electronic devices, including diodes, BJTs and FETs, and simple integrated circuits along with their operation and applications. Students will learn how to analyze circuits containing these devices. In the lab, students will construct various electronic circuits with the devices studied and will test and verify the circuits' performance and operation. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): EET* 110.

EET* 232 - Electronics II

4 credits Presents advanced electronic topics and applications including operational amplifiers, voltage regulators, and timer/waveform generators. Students will learn the operation of single- and multi-stage amplifiers, active filters, differential amplifiers, power supplies, and oscillators. In the lab, students will construct various electronic circuits and verify the circuits' performance and operation. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): EET* 136 and MAT* 186.

EET* 241 - Introduction to Fiber Optics

4 credits Presents the principles of fiber optics, including light sources, single-mode, multi-mode, graded index fiber and cabling, connectors, photo-detectors, repeaters, and optical fiber sensors. Students will study various voice, data, and image communications systems using fiber optic networks. In the lab, students will perform experiments to gain hands-on experience with fiber optic components, circuits, and systems. Students will also have the opportunity to construct, test, and evaluate fiber optic communication links for analog and digital signal transmission. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): EET* 136 and EET* 252.

EET* 252 - Digital Electronics

4 credits Introduces binary and hexadecimal number systems, codes, Boolean algebra, truth tables, logic gates, logic circuitry and Boolean reduction techniques. Students will learn how a variety of digital IC devices operate including flip-flops, one shots, clocks, counters, registers, decoders, encoders, displays, multiplexers and demultiplexers along with their applications. In the lab, students will investigate modern digital applications through hands-on experience. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): EET* 110 or Instructor's permission.

EET* 256 - Microprocessors

4 credits Presents the programming fundamentals of a particular microprocessor and its instruction set, as well as how to write programs with this instruction set. Students will also learn the architecture of the microprocessor, including the arithmetic-logic unit, registers, flags, bus structure and timing operations. Interfacing techniques to memory and input/ output devices will also be introduced. In the lab, students are introduced to both a microprocessor trainer and a microprocessor simulator and will learn how to use this trainer to write, test and troubleshoot a variety of programs using arithmetic, logic, and branch instructions. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): EET* 252.

EET* 262 - Electrical Machinery and Control

4 credits Introduces students to the electrical energy industry with a concentration on the principles of DC and AC magnetic circuits, focusing on electrical machinery, including DC generators and motors, AC single and polyphase alternators and motors, and power transformers. Students will learn basic electrical machine control procedures, including programmable logic controllers and the use of other solid-state control devices. In the lab, students will perform experiments to gain hands-on experience with DC and AC magnetic circuits and basic electrical machines and controls. Students will learn to operate, test, assemble, and disassemble machines, prepare characteristic operating curves, and use programmable logic controllers for industrial control applications. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): EET* 114, EET* 136, and MAT* 186.

EET* 272 - Electronic Communications

CALT
4 credits Presents modern electronic communications based on an informational and circuit/systems framework. Students will learn the concepts of noise considerations, bandwidth, and propagation requirements, and AM and FM modulation techniques for the transmission and reception of RF signals. In the lab, students will perform experiments to gain hands-on experience in the design, construction, testing, and evaluation of the various circuits and sub-systems that comprise a communications system. Students will also learn how to combine computer simulation with bench experimentation and will learn instrumentation, waveform analysis, and circuit system performance related to modern electronic communications. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): EET* 232.

EET* 296 - EET Internship

3 credits Provides first-hand, real-life work experience in the electronics industry. Establishes internships in the fields of electrical energy production and distribution, telecommunications, electronic fabrication and assembly, electrical machinery and controls, and electronic information systems and equipment. Students are matched with internships based on skills, interests, and recommendations. Students report to a worksite once per week during the academic term and complete an Internship Evaluation Form and Narrative Report on their experience.

ENGINEERING SCIENCE

EGR* 111 - Introduction to Engineering

3 credits Introduces students to the fields of engineering through design and graphics and comprehensive engineering projects. Topics include: sketching, charts, graphs, forces, energy, electrical circuits, mechanisms, robotics, manufacturing technologies and fundamentals of engineering economics.
Prerequisite(s): MAT* 137 or Higher with a C or better or higher.

EGR* 131 - Introduction to Nanotechnology

3 credits Designed to give participants who have little or no knowledge of nanotechnology a broad overview of the field in a nontechnical manner. Lectures will present the fundamental ideas behind nanoscience and nanotechnology. Beginning with the definition of a nanometer, discussions will continue through how nanotechnology will affect business and industry; basic processes that are currently used in nanotechnology; the economic impact of this emerging field; environmental concerns in the near and long-term; NEMS/MEMS; imaging devices; polymers; biomolecules; nanowires; nanotubes; fullerenes; and other carbon nanostructures. Participants will be expected to read the material, share data obtained from the class discussion and prepare additional nanotechnology oriented projects/papers and presentations.
Prerequisite(s): MAT* 095 or higher,ENG* 066 or higher. **Corequisite(s):** CET* 116.

EGR* 211 - Engineering Statics

3 credits Offered: Fall Only
Presents the fundamentals of statics, including the resolution and composition of forces, the equilibrium of force systems, the analysis of forces acting on structures and machines, centroids, and moment of inertia. Uses vector methods.
Prereq/Corequisite(s): MAT* 268.

EGR* 212 - Engineering Dynamics

3 credits Offered: Fall Only
Presents a basic engineering course in dynamics, covering rectilinear and curvilinear motion, translation, rotation, plane motion, work, energy and power, and impulse and momentum. Applies the principles of dynamics to engineering problems using vector methods and computer applications.
Prerequisite(s): EGR* 211 and MAT* 268.

EGR* 221 - Introduction to Electrical Circuit Analysis

3 credits Offered: (Course has not been offered in the past two years)
Analyzes electrical networks incorporating passive and active elements through basic laws and techniques. Covers transient and forced responses of linear circuits, periodic excitation, and frequency response. This is a required elective for Engineering Pathway students majoring in either Electrical/Systems Engineering or Computer Science/Engineering.
Prerequisite(s): EGR* 211 and PHY* 221. **Corequisite(s):** MAT* 285.

ENGLISH

ENG* 066 - Introduction to Academic Reading, Writing & Scholarship

6 credits Focuses on the foundational reading, writing and study skills necessary for effective learning and communication. The emphasis is on learning through reading. Students are introduced to various topics, content and forms through creative and expository literature. Students will develop the appropriate academic vocabulary as well as strategies for greater analysis, comprehension and retention of knowledge through reading. The writing component of the course focuses on the organizational and grammatical structure of the paragraph while introducing various rhetorical modes of expression. Instructional seminars by faculty and staff are coordinated with visits to library, computer labs, CES, fitness center, counseling and career offices will also be a component of the course. Placement: Determined by ACCUPLACER score. Exit criteria: C or better qualifies for ENG* 099A/ENG* 101 - ALP placement. A grade of C- qualifies for ENG* 091.

Notes: Credit does not count toward meeting degree requirements. **(This course replaces both ENG 043 and ENG 073 as of fall 2014)**

ENG* 091 - Introduction to Advanced Reading & Writing

4 credits Enhances and refines students' critical writing and reading skills in preparation for ENG* 101. Students will extend their abilities to write clearly, coherently, and fluently by incorporating critical analysis of challenging readings into their writing. They will use in-depth, critical reading strategies to improve their comprehension of college level texts across the curriculum. Vocabulary, outlining, and summary/synthesis/critiquing skills will be reinforced. All of these skills will further prepare students for the demands of college reading and writing in ENG* 101 and beyond.
Prerequisite(s): A grade of C- or better in ENG* 066, instructor recommendation, or ACCUPLACER. Notes: Credit does not count toward meeting degree requirements.

ENG* 099A - Transition to Composition: Accelerated Learning Program

(ALP)
3 credits Offered as a co-requisite to matching ENG* 101 ALP sections as of fall 2017. Course was previously numbered as ENG* 063). Augments the lessons taught in ENG* 101 while continuing the study of paragraph development. Extends students' abilities to write clear, fluent, and effective multi-paragraph essays in a variety of rhetorical modes. Also incorporates grammar and punctuation rules and reading for critical analysis, modeling, and topic generation.
Prerequisite(s): A grade of C or better in ENG* 066 or C- in ENG* 091. Notes: Credit does not count toward meeting degree requirements.

ENG* 101 - Composition

WC: Written Communication I
3 credits Develops strategies for college-level writing through the critical study of various rhetorical modes. Emphasizes the development of carefully reasoned essays that cite appropriate evidence to support conclusions. Develops library and research skills required for composition and communication. Students will write a number of short expository papers and a longer research paper incorporating MLA documentation techniques.
Prerequisite(s): Sufficient score on the placement test or successful completion of ENG* 063, ENG* 091, ESL* 161 and ESL* 178 with a grade of "C" or better (or instructor recommendation). **Corequisite(s):** *(ALP sections must be taken with co-requisites of ENG* 099A ALP).*

ENG* 102 - Literature and Composition

WC: Written Communication II
3 credits Emphasizes critical reading and writing by surveying such literary genres as poetry, prose, drama, and fiction. Introduces literary techniques, terminology, conventions, and devices. Students will write a number of short critiques in which they respond to, analyze, and interpret selections from a literature anthology. They will also write a longer literary research paper incorporating MLA documentation techniques.
Prerequisite(s): "C" or better in ENG* 101.

ENG* 114 - Children's Literature

3 credits Develops students' knowledge of and appreciation for children's literature. Students will explore children's stories and the components of good children's literature by investigating the interrelationship of literary content and form. By developing a personal bibliography, students will investigate the wealth of children's literature available today. This course also assists teachers to promote a comprehensive, creative, and insightful utilization of literary materials in their classes. Examples of incorporating children's literature in learning include choral reading, storytelling, creative dramatization, role-playing, and use of music and movement.

ENG* 200 - Advanced Composition

WC: Written Communication II
3 credits Develops and refines the advanced skills in composition that are essential for both academic and professional writing. Emphasis will be on writing from various sources including texts and online material. The focus of student writing will include exposition, argumentation and a research paper using various documentation styles (including but not limited to MLA, APA,

CBE and Chicago).
Prerequisite(s): ENG* 101 (minimum of a C grade).

ENG* 202 - Technical Writing

3 credits Addresses the conventions of technical writing. Introduces the purposes, developmental strategies, and formats of technical documents. Covers audience analysis and adaptation, document organization and design, graphics, and research documentation methods. Stresses a readable style in all professional writing. Requires a series of short reports, a collaborative project, and a major research paper.
Prerequisite(s): ENG* 101.

ENG* 210 - Fiction

3 credits Surveys short stories and novelettes whose themes are not limited by the possible or probable. Focuses on critical literary interpretations, including the characteristics, conventions, and devices of authors ranging from Poe and Hawthorne, through Clarke and Asimov, to LeGuin and Farmer. Stresses logical and supportable reader response in both class discussions and analytical essays. Required reading includes one major novel.
Prerequisite(s): ENG* 101.

ENG* 211 - Short Story

3 credits Focuses on representative works by such North American short story writers as Wright, Thurber, Vonnegut, Porter, and Hemingway. Requires writing assignments in response to assigned texts.
Prerequisite(s): ENG* 101.

ENG* 214 - Drama

3 credits Surveys dramatic literature from ancient Greece through the modern and contemporary periods. Introduces theatrical terminology, techniques of script analysis, and critical approaches to theatrical productions. Includes screenings of selected cinematic interpretations. Encourages, whenever possible, attendance at area theatrical productions.
Prerequisite(s): ENG* 101.

ENG* 221 - American Literature I

CALT: Critical Analysis/Logical Thinking and AD: Aesthetic Dimension of Humankind
3 credits Surveys American literature from its beginnings to the mid-nineteenth century. Examines a variety of forms, including journals, autobiographies, essays, poems, sermons, histories, and statecraft. Includes selections from such authors as Jefferson, Thoreau, Whitman, Dickinson, and Poe.
Prerequisite(s): A grade of C or better in ENG* 101.

ENG* 222 - American Literature II

CALT: Critical Analysis/Logical Thinking and AD: Aesthetic Dimension of Humankind
3 credits Surveys American literature from the mid-nineteenth century to the present. Examines the poetry and prose (both fiction and nonfiction) characteristic of the period of expansion and industrialization. Also presents the literature of the twentieth century. Includes selections from such authors as Twain, Cather, Baldwin, and Miller.
Prerequisite(s): A grade of C or better in ENG* 101.

ENG* 231 - British Literature I

CALT: Critical Analysis/Logical Thinking and AD: Aesthetic Dimension of Humankind
3 credits Surveys representative works of British literature from the Anglo-Saxon period through the eighteenth century. Includes poetry, prose, drama, and fiction by such authors as Chaucer, Shakespeare, Milton, Pope, and Swift.
Prerequisite(s): A grade of C or better in ENG* 101.

ENG* 232 - British Literature II

CALT: Critical Analysis/Logical Thinking and AD: Aesthetic Dimension of Humankind
3 credits Examines representative works of poetry, prose, drama, and fiction from Blake to the present, covering the Romantic, Victorian, Modern, and Contemporary periods of British literature. Includes works by such authors as Wordsworth, Dickens,

Tennyson, Woolf, and Larkin.
Prerequisite(s): A grade or C or better in ENG* 101.

ENG* 245 - Early Western Literature

CALT: Critical Analysis/Logical Thinking and AD: Aesthetic Dimension of Humankind
3 credits A survey of European literature from ancient Greece and Rome to the Renaissance, studying such works as the epics of Homer, *The Bible*, the tragedies of Aeschylus and Sophocles, Plato, St. Augustine, *The Koran*, Dante, and Chaucer.
Prerequisite(s): A grade of C or better in ENG* 101 or instructor's permission.

ENG* 246 - Modern Western Literature

CALT: Critical Analysis/Logical Thinking and AD: Aesthetic Dimension of Humankind
3 credits A survey of European literature from the Renaissance to the present. Includes such authors as Montaigne, Cervantes, Goethe Ibsen, Chekhov, and Woolf.
Prerequisite(s): A grade of C or better in ENG* 101 or instructor's permission.

ENG* 251 - African-American Literature

3 credits Presents literature about the African-American experience. Focuses on accounts of the colonial slave trade, the plantation experience, the abolition movement, the Reconstruction Era, and the Harlem Renaissance. Includes works by such emerging writers as Walker, Morrison, Gaines, and Jordan.
Prerequisite(s): ENG* 101 or instructor's permission.

ENG* 254 - Modern Arabic Literature

CALT: Critical Analysis/Logical Thinking
3 credits An introduction to contemporary Arabic literature in translation including poetry, short stories, drama, novellas and novels. The works of both male and female voices will be explored from many Arab countries including Algeria, Egypt, Lebanon, Jordan, Iraq, Sudan, Saudi Arabia, Syria, United Arab Emirates and Yeman.
Prerequisite(s): A grade of C or better in ENG* 101.

ENG* 262 - Women in Literature

3 credits Examines women in literature by both male and female writers throughout the centuries. Approaches various genres from critical, cultural, and historical perspectives. Analyzes the stages, circumstances, and conditions of women's lives in a broad spectrum of literary expression. Includes a critical writing component.
Prerequisite(s): ENG* 101.

ENG* 271 - Film and Literature

3 credits Studies the unique forms of film and literature by reading selected novels and plays and by viewing films adapted from them, followed by a critical discussion of both.
Prerequisite(s): ENG* 101 or instructor's permission.

ENG* 272 - History of Film

AD: Aesthetic Dimensions
3 credits Surveys the history of film from its beginning to the present. Emphasizes the development of forms and techniques, production methods, and film's relationship to other arts and to social/political currents. Focuses on critical analysis and discussion of selected contemporary films illustrating aesthetic principles that govern cinematic value and meaning.
Prerequisite(s): ENG* 101.

ENG* 281 - Creative Writing

3 credits Introduces the major writers of contemporary American Letters. Serves as a cooperative writing workshop to evaluate student writing. Encourages commitment to the writing process: revision, development, discipline, and the satisfaction of accomplishment. Studies each of the writing genres, allowing students to select their own medium for a course project.
Prerequisite(s): ENG* 101.

ENGLISH AS A SECOND LANGUAGE

ESL* 139 - Pronunciation III

3 credits Addresses the problems of pronunciation using the concepts of rhythm, intonation, and thought grouping. Students perform speaking activities, practicing the concepts and integrating exercises for listening practice. Students will perform a final speech exercise involving the basic concepts presented in the class. This course satisfies the Foreign Language requirement. *(This course may be taken concurrently with any ESL course.)*

ESL* 141 - Integrated Skills IV

3 credits Develops fluency in the English language. Focuses on reading, writing, grammar, speaking, and listening comprehension on typical topics stressed in class, small groups, and individual practice.
Prerequisite(s): sufficient score on the ESL Placement Test. This course satisfies the Foreign Language requirement. *(This course may be taken concurrently with ESL* 139 and ESL* 143).*

ESL* 143 - Writing and Reading IV

3 credits Designed to help students with academic English writing skills on the high-beginning level involving work at the level of sentences and development of a basic paragraph. Early writing assignments will focus on sentence development, development of topic sentences and supporting sentences. Additional assignments will focus on paragraph development and organization. Focus will be the entire writing process; planning, editing, and revising. Students will be able to ask questions about their writing which will lead to improvements.
Prerequisite(s): ESL Placement score of 45-65. **Corequisite(s):** ESL* 139 or ESL* 141.

ESL* 144 - Pronunciation IV

3 credits Focuses on studying and applying advanced techniques of American pronunciation using the basic concepts of rhythm, intonation and thought grouping. Students perform speaking activities to achieve an accent which is understandable to others in a professional and academic environment.
Prerequisite(s): ESL* 139. This course satisfies the Foreign Language requirement.

ESL* 151 - Integrated Skills V

3 credits Refines use of idiomatic expressions while continuing to build fluency in all English language skill areas. Focuses class discussions, presentations, and assignments on multiple themes.
Prerequisite(s): ESL* 141 or sufficient score on the ESL placement Test. This course satisfies the Foreign Language requirement and may also be used as Humanities elective credit toward graduation. *(This course may be taken concurrently with ESL* 139, ESL* 159 and ESL* 180).*

ESL* 159 - Writing V

3 credits Improves writing skills for use in both college and the workplace. Writing assignments focus on the writing process through group work and individual conferences with the instructor. The course focuses on computer online writing development of the paragraph to the essay covering various rhetorical modes..
Prerequisite(s): ESL* 141 or sufficient score on the ESL Placement Test. This course satisfies the Foreign Language requirement. *(This course may be taken concurrently with ESL* 139, ESL* 141 and ESL* 151).*

ESL* 161 - Integrated Skills VI

3 credits Advances English language skills through small group and individual instruction. Stresses multicultural themes through readings, class discussions, and oral presentations.
Prerequisite(s): ESL* 159, ESL* 180, and ESL* 151, or sufficient score on the ESL Placement Test. *Students intending to take ENG* 101 or COM* 173 must receive a grade of "C" or better.* This course satisfies the Foreign Language requirement and may also be used as Humanities elective credit toward graduation. *(This course may be taken concurrently with ESL* 139, ESL* 144, ESL* 169 and ESL* 180).*

ESL* 167 - Oral Communications VI

3 credits An advanced English language communication course which emphasizes pronunciation techniques and professional discourse. Students learn pronunciation skills using the concepts of rhythm, intonation, and thought grouping. This course lays a foundation for public speaking in a variety of contexts including academic, business, and social situations. Lecture Hours: 3
Prerequisite(s): ESL* 139

ESL* 169 - Writing VI

3 credits Improves general writing skills in academic English, involving short essay assignments. Essay writing assignments will focus on essay development and organization. Focuses on computer online writing development of the essay covering various rhetorical modes.
Prerequisite(s): ESL* 159, ESL* 180, and ESL* 151, or sufficient score on the ESL Placement Test. This course satisfies the Foreign Language requirement. *(This course may be taken concurrently with ESL* 139, ESL* 144, ESL* 161 and ESL* 180).*

ESL* 178 - Advanced Reading and Writing

3 credits Designed to focus on the academic reading and writing process. Students will interact with various types of academic texts through reading and writing. Emphasis will be given to critical reading strategies and analysis of texts to help students refine their ability to interpret, analyze, and summarize what they have read through synthesizing ideas in essay development and organization. Focuses on computer online writing development.
Prerequisite(s): Appropriate score on ESL placement or completion of ESL* 161 and ESL* 169 or recommendation of ESL Instructor or Coordinator. This course satisfies the Foreign Language requirement. *Students intending to take ENG* 101 or COM* 173 must receive a grade of "C" or better.*

ESL* 180 - Reading V

3 credits Focuses on reading comprehension skills, including phonics, use of dictionaries, words in context, main ideas, and supporting details in academic texts. Incorporates readings that reflect multiculturalism and the college experience. Focuses on fluency first. Prepares students for degree programs and/or taking the TOEFL exam.
Prerequisite(s): ESL* 141 or sufficient score on the ESL Placement Test. This course satisfies the Foreign Language requirement. *(This course may be taken concurrently with ESL* 139, ESL* 144, ESL* 159, ESL* 169, ESL* 151 and ESL* 161).*

ESL* 191 - Technical English VI

3 credits Integrates technical vocabulary into reading, writing, speaking, and listening comprehension. Concentrates on specific technical subjects.
Prerequisite(s): ESL* 139 or sufficient score on the ESL Placement Test. This course satisfies the Foreign Language requirement. *(This course may be taken concurrently with ESL* 139, ESL* 169, ESL* 161 and ESL* 180).*

ESL* 250 - TESOL Methodology

3 credits Introduces the theories of second language learning and demonstrates practical applications of these theories. Provides the opportunity to learn new techniques for teaching English and to do field work at all levels of ESL. This course satisfies the Connecticut state requirements for ESL Certification K-Adults.

ENVIRONMENTAL SCIENCE

EVS* 100 - Introduction to Environmental Science

SK: Scientific Knowledge and Understanding
3 credits Examines the conceptual basis for today's environmental programs. Emphasizes water, solid waste, hazardous waste, air pollution, and local land use decisions by focusing on the biological, chemical, and physical aspects of environmental pollution, energy, and relationships between the environment and society. Considers environmental ethics, law, and relationships between environment, economics, and government. Field trips(s) required.

EVS* 114 - Environmental Science

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Examines the scientific, social, and political aspects of environmental problems. Emphasizes water, solid waste, air

pollution and local land use decisions by focusing on the biological, chemical, and physical aspects of environmental science. Examines energy sources and the relationships between the environment and society. This course also considers environmental ethics, law, and the relationships between the environment, economics and government. Laboratory exercises expand upon these various topics as they are discussed in lecture. Students who have taken and successfully completed EVS* 100 may not take EVS 114. Lecture Hours: 3 Lab Hours: 3

EVS* 200 - Toxicology

3 credits Focuses on toxicological principles, including FDA requirements relating to new drugs. Addresses environmental and other factors affecting the toxicity of therapeutic agents, mechanisms of toxicity, and clinical applications.
Prerequisite(s): EVS* 100 or EVS* 114

EVS* 296 - Environmental Science & Toxicology Internship

3 credits This course places students in a suitable, supervised internship in an industry of interest for a minimum of 150 hours of internship work.
Prerequisite(s): CHE* 121 with a C or better

EXERCISE SCIENCE

EXS* 101 - Introduction to Exercise Science and Wellness

3 credits An introduction to the fitness industry, the various career options available and the analysis of current and future industry trends. Analyzes the history of the field and the role of fitness specialists in society today.
Prerequisite(s): Eligibility for ENG* 101.

EXS* 102 - Seminar in Exercise Science and Wellness

3 credits Discusses an ever-changing range of exercise and wellness topics, their effects on the individual, the industry and society.

EXS* 115 - Fitness Management

3 credits Presents the development and operations of a successful health and fitness business including management, marketing, sales, human resources, legal issues and more.

EXS* 212 - Exercise Science & Wellness Internship

3 credits Refines students' skills in the health evaluations, exercise testing and exercise program development, as well as the management of exercise programming. Students participate in 150 hours of supervised field experience to further develop their knowledge, skills and abilities. Students must possess a current Adult First Aid, CPR, and AED certification that has a practical skills examination component (such as the American Heart Association or the American Red Cross).
Prerequisite(s): EXS* 225 and EXS* 227.

EXS* 225 - Essentials of Strength and Conditioning

3 credits Practical application of the scientific principles behind the aerobic and anaerobic adaptations of training and various exercise forms and how they relate to different populations and their fitness goals. Exercise prescription and adaptation with regard to cardiovascular, resistance and specialty training.
Prerequisite(s): BIO* 211. **Corequisite(s):** BIO* 212.

EXS* 227 - Exercise Testing & Program Design

CALT: Critical Analysis/Logical Thinking
4 credits Includes guidelines for laboratory testing used in a health and fitness setting and for exercise programming. Students will analyze the specific needs and concerns of each testing outcomes, and how to best work with each sector.
Prerequisite(s): BIO* 211 and EXS* 225.

EXS* 229 - Human Biomechanics

4 credits Applications of the fundamental principles and systematic observations of the quality of human movement and how to best improve performance.
Prerequisite(s): BIO* 211.

EXS* 230 - Exercise Programming for Special Populations

3 credits Provides information on exercise testing and programming for people with a wide range of disease and disabilities. Focus on the unique requirements, the effects of exercise training, and recommendations for exercise are covered.
Prerequisite(s): EXS* 227.

EXS* 235 - Exercise Physiology

4 credits Focuses on the physiological factors affecting human performance in exercise and activity with special focus on the muscular, cardiovascular and circulatory systems under the effects of exercise through lecture and lab experiences.
Prerequisite(s): BIO* 211, BIO* 212.

FIRE ADMINISTRATION

EMT* 100 - Emergency Medical Technician Basic

6 credits Includes classroom and clinical experiences and provides students the opportunity to develop the knowledge and skills required for EMG-B National Certification. Emphasis is placed on patient assessment, clinical signs and symptoms, pathophysiology and pre-hospital care of patients. Areas of instruction include CPR, airway essentials, assessment and care of trauma and medical patients including infants, children and the elderly, rescue operations, hazardous materials and pharmacological interventions.
Prerequisite(s): FTA* 101 or permission of Division Director.

FTA* 100 - Fitness and Health for Firefighters

3 credits Overview of fitness for current and prospective firefighters. Includes physical and mental aspects of performance for optimal achievement on fire department agility test and firefighting task.
Prerequisite(s): M.D. physical and clearance to participate in physical fitness activities.

FTA* 101 - Fundamentals of Firefighting I

9 credits The first of two courses that provides the essentials of firefighting including fire department operations, firefighting equipment and safety. Emphasis on the chemistry of fire, techniques of firefighting, and utilization of equipment in fire suppression. Physical training is mandatory and is expected daily. The GWCC Certification program is designed to meet all requirements of the State of Connecticut Commission of Fire protection, firefighter I certification.
Prerequisite(s): Acceptance into the GCC Firefighting I and II Certification Academy. M.D. physical and clearance to participate in physical activities, lifting, bending, and carrying up to 30 lbs.

FTA* 102 - Fundamentals of Firefighting II

3 credits Continuation of the essentials of firefighting including fire department operations, firefighting equipment, and safety. Emphasis on the chemistry of fire, techniques of firefighting, and utilization of equipment in fire suppression. Physical training is mandatory and is expected daily. The GWCC Certification program is designed to meet all requirements of the State of Connecticut Commission of Fire protection, firefighter I and II certification.

FTA* 103 - Civil Service Test Preparation

1 credits Provides preparation for civil service exams given to prospective firefighters. The course covers all aspects of the exam process including written, oral and physical ability testing. Students will review and practice basic concepts and skills in pre-algebra, writing, reading. Practice written test will be used to help the student identify areas for improvement. Also covers oral interviewing skills for fire department civil service exams. Students will be shown and provided preparatory information on candidate physical ability testing for fire departments.
Prerequisite(s): FTA* 101.

FTA* 110 - Fire Ground Hydraulics

3 credits Presents the principles of water and water flow, including water supply systems and water flow analysis. Emphasis on the movement of water through fire apparatus, appliances, hose and various nozzles. Covers fire apparatus and pumps, fire streams, fire service pressure calculations, and fixed fire extinguishing systems such as sprinkler and standpipe operations.
Prerequisite(s): FTA* 101.

FTA* 112 - Introduction to Fire Technology

3 credits Provides an overview to fire protection and emergency services, culture and history of emergency services, fire loss analysis, organization and function of public and private fire protection services, fire departments as part of local government, laws and regulations affecting the fire service, fire service nomenclature, specific fire protection functions, basic fire chemistry and physics, fire strategy and tactics, and life safety initiatives.

FTA* 116 - Building Construction

3 credits Provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures, pre-planning fire operations, and operating at emergencies.

FTA* 118 - Fire Prevention and Inspection

3 credits Provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, plans review, fire inspections, fire and life safety education, fire investigation.
Prerequisite(s): FTA* 112

FTA* 122 - Fire Behavior and Combustion

3 credits Explores the theories and fundamentals of how and why fires start, spread, and are controlled.
Prerequisite(s): FTA* 112

FTA* 126 - Safety and Survival

3 credits Introduces the basic principles and history related to the National firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.
Prerequisite(s): FTA* 112

FTA* 210 - Water Supply and Hydraulics

3 credits Provides a foundation of theoretical knowledge in order to understand the principles to analyze and solve water supply problems.
Prerequisite(s): FTA* 112, MAT* 115 or higher.

FTA* 212 - Legal Aspects of Emergency Services

3 credits Addresses the federal, state, and local laws that regulate emergency services and include a review of National standards, regulations, and consensus standards.
Prerequisite(s): FTA* 112

FTA* 213 - Codes and Standards

3 credits Presents fire and building codes as a means to provide reasonable public safety. Introduces code development and adoption processes and code administration. Reviews major regulatory organizations and national standards, emphasizing the Life Safety Code of the NFPA and its referenced standards.

FTA* 216 - Municipal Fire Administration

3 credits Introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.
Prerequisite(s): FTA* 112

FTA* 217 - Occupational Safety & Health for Emergency Services

3 credits Introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations.
Prerequisite(s): FTA* 112

FTA* 218 - Extinguishing Systems

3 credits Covers wet- and dry-pipe automatic sprinklers, both commercial and residential, as well as preaction and deluge systems, water spray and foam systems. Also discusses standpipes, carbon dioxide, dry chemical, and halon extinguishing and explosion suppression systems. Review appropriate NFPA Standards.
Prerequisite(s): FTA* 210

FTA* 219 - Fire Investigation I

3 credits Determines points of origin and causes of fires, discriminating between fires of accidental and intentional origin. Presents managing operations at the fire scene, collecting and preserving evidence, recording information, and scientific aids to investigation.
Prerequisite(s): CHE* 111 and FTA* 116

FTA* 227 - Fire Protection Systems

3 credits Provides information relating to the features of design and operation of fire alarm systems, water-based fire protection and portable fire extinguishers.
Prerequisite(s): FTA* 210

FTA* 229 - Fire Investigation II

3 credits This course intends to provide the student with advanced technical knowledge on the rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and courtroom testimony.
Prerequisite(s): FTA* 219

FTA* 230 - Strategy and Tactics

3 credits Provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents.
Prerequisite(s): FTA* 112

FIRST YEAR EXPERIENCE

FYE* 111 - First Year Seminar

3 credits Prepares students for success in college and beyond. Students will explore academic and career option, set informed academic and career goals, and begin to develop essential skills such as information literacy, critical thinking, and effective communication through civil discourse. Students will also develop a personalized academic plan and learn academic behaviors and study strategies associated with success. Lecture Hours: 3

IDS 114 - Foundations of Academic Inquiry

3 credits Introduces students to academic inquiry and the academic environment through the exploration of a current event/ issue/controversy. The thematic approaches may include current topics in politics, the environment, technology, social justice, popular culture and more. Through the academic investigation of the theme, students will learn skills necessary for success in college and beyond.

FOREIGN LANGUAGES

FRE* 101 - Elementary French I

3 credits Presents the essentials of grammar and reading with practice in speaking and writing basic French. Open to students with little or no experience in French.

FRE* 102 - Elementary French II
3 credits Improves language skills with further study of grammar, pronunciation, and basic speech patterns. Provides additional practice in reading and writing.
Prerequisite(s): FRE* 101.

FRE* 201 - Intermediate French I
3 credits Develops audio-lingual skills. Reviews basic principles of the language, including grammar with an emphasis on reading, writing, and speaking.
Prerequisite(s): FRE* 102.

FRE* 202 - Intermediate French II
3 credits Offers a thorough drill of grammar, typical speech patterns, and diction. Stresses conversation and composition, based on class readings, to develop mastery of the language.
Prerequisite(s): FRE* 201.

ITA* 101 - Elementary Italian I
3 credits Presents the essentials of grammar and reading with practice in speaking and writing simple Italian. Stresses pronunciation. Open to students with little or no experience in Italian.

ITA* 102 - Elementary Italian II
3 credits Emphasizes aural comprehension, pronunciation, and basic conversation. Continues practice in speaking and writing. Stresses the basic structure of Italian grammar.
Prerequisite(s): ITA* 101.

ITA* 201 - Intermediate Italian I
3 credits Reviews and deepens knowledge of Italian grammar with more emphasis on reading and vocabulary building. Intensifies practice in speaking and some reading of contemporary prose.
Prerequisite(s): ITA* 102.

ITA* 202 - Intermediate Italian II
3 credits Stresses conversational patterns and practices. Presents Italian literature and culture. Provides the skill training required to read and translate Italian.
Prerequisite(s): ITA* 201.

SPA* 97 - Basic Spanish I
3 credits Familiarizes students with key aspects of the Spanish language. Facilitates a solid foundation and builds confidence for higher level courses. Developed for those who have not had experience with the language and responds to the changing academic, occupational, technological, and cultural needs of a diverse population. Daily conversations and use of the language will be the key for success in this course. *(Credit does not count toward degree requirements).*

SPA* 101 - Elementary Spanish I
3 credits Presents the essentials of grammar and reading with practice in speaking and writing basic Spanish. Develops conversational skills. Open to students with little or no experience in Spanish. *(Native speakers of Spanish are strongly discouraged from registering for this course.) Placement in this course is determined by score from the placement exam.*

SPA* 102 - Elementary Spanish II

3 credits Emphasizes aural comprehension, basic conversation, and pronunciation. Emphasizes principles of grammar to improve reading, writing, and speaking.
Prerequisite(s): SPA* 101 or appropriate score on placement test.

SPA* 201 - Intermediate Spanish I

3 credits Introduces conversational Spanish through a presentation of Spanish civilization. Emphasizes written reports, readings of Spanish prose, and lectures on important literary figures.
Prerequisite(s): SPA* 102 or appropriate score on placement test.

SPA* 202 - Intermediate Spanish II

3 credits Emphasizes advanced composition and conversation. Discusses readings and reports on literary, artistic, and political figures of Spanish and Spanish-American civilization.
Prerequisite(s): SPA* 201 or sufficient score on the placement test.

SPA* 221 - Introduction to Puerto Rican Studies I

3 credits Surveys Puerto Rican literature: prose, drama, poetry, and essays from colonial times to the present.
Prerequisite(s): ENG* 101, SPA* 202 or instructor recommendation.

SPA* 222 - Introduction to Puerto Rican Studies II

3 credits Examines the process and consequences of cross-cultural contact and cultural changes in Puerto Rican society. Discusses historical, political, and sociological issues central to an understanding of the Puerto Rican culture.
Prerequisite(s): ENG* 101, SPA* 202 or instructor recommendation.

SPA* 232 - Spanish Composition for Professionals

3 credits This computer/classroom online course provides students with the basic knowledge to communicate appropriately in written Spanish by learning to write clearly, simply, and effectively and by using technology to develop writing ability.
Prerequisite(s): SPA* 202 or equivalent or sufficient score on the placement test.

GEOGRAPHY

GEO* 101 - Introduction to Geography

3 credits Presents natural, cultural, and political environments, enabling students to better understand the world. Examines various professional opportunities in the field of geography and various habitats of the physical world, e.g., mountains, deserts, and plains, with particular emphasis on the relationship of place and self.

HISTORY

HIS* 101 - Western Civilization I

HK: Historical Knowledge and Understanding
3 credits Presents the basic forces that have shaped Western tradition, from the Neolithic age to the Renaissance and Reformation periods. Emphasizes the economic and political aspects of ancient, medieval, and early modern history.

HIS* 102 - Western Civilization II

HK: Historical Knowledge and Understanding
3 credits Examines the development of the mind from medieval to modern, with particular attention on trade, urban communities, and the commercial and manufacturing centers that altered economic, social, and political thinking.

HIS* 201 - U.S. History I

HK: Historical Knowledge and Understanding

3 credits Presents a special treatment of the social, economic, political, and cultural development of the American people, beginning with the Age of Discovery and Colonial settlement and continuing through the Civil War. Topics include Puritanism, Hamiltonianism, and Sectionalism.

HIS* 202 - U.S. History II

HK: Historical Knowledge and Understanding

3 credits Provides a topical, rather than a chronological, approach to the Reconstruction in the South, from 1865 to the present. Applies the same approach in the same time span to other topics, such as labor, agriculture, business, foreign affairs, and progressivism. Topics are based on a contemporary problem, taking into account its historical perspective.

HIS* 216 - African-American History I

HK - Historical Knowledge

3 credits Demonstrates the significant role African-Americans have played in history. Starting in Africa, stresses such topics as slave trade and slavery. Continuing through the Colonial and antebellum periods to the Reconstruction and segregation eras, places the African-American in the proper perspective within the fully dimensional picture of America.

HIS* 217 - African-American History II

HK - Historical Knowledge

3 credits Studies the African-American experiences from the Post-Reconstruction era through modern times. Illustrates some of the many success stories of African-Americans and identifies the obstacles that were placed in their way. Covers the Harlem Renaissance, Brown vs the Board of Education, the Civil Rights Movement, the Black Power Movement, and the Great Society.

HIS* 233 - 20th Century Russia

3 credits Offered: (Course has not been offered in the past two years)

Examines the intellectual, political, and socioeconomic changes in twentieth century Russia. Investigates post-revolutionary problems, both political and economic, during the consolidation of power by the Soviet dictatorship. Also addresses Glasnost, Perestroika, and the collapse of the Soviet Union.

HIS* 253 - History of Human Rights

3 credits Examines the origin and development of the concept of human rights in the modern world. It will examine three major areas of human rights: political, social and economic, and cultural rights through the study of theoretical material and case studies. The main focus will be on Latin American and the United States.

HOSPITALITY MANAGEMENT

HSP* 100 - Introduction to the Hospitality Industry

3 credits Examines the scope, components, and development of the hospitality and tourism industries. Overview of specialized fields and careers relating to the management of food service, lodging, and tourism operations. Covers the relationship between components of hospitality and meeting planning.

HSP* 117 - Beverage Management

3 credits Offered: Spring

Introduces the identification, use, and service of wines and other alcoholic beverages with an in-depth analysis of the various elements of beverage operations, including purchasing, control, legalities, merchandising, and bar management.

HSP* 134 - Hospitality Customer Relations

3 credits Introduces the concept and principles of treating customers as guests and create a "wow" experience for them. Explores the intricacies of quality guest service with solid and proven concepts across the hospitality industry. Students will develop communication and problem-solving skills and learn the art of cordiality, how to exceed guest expectations, handle difficult guests, resolve conflict, and analyze guest feedback to improve performance.

HSP* 211 - Food and Beverage Cost Control

3 credits Offered: Fall

Presents cost control methods, cost/volume/profit relationship, and purchasing as they relate to the food and beverage industries. Food and beverage cost determination, inventory, turnover, menu, and portion costing and forecasting will be discussed.
Prerequisite(s): Eigible for MAT 109 or higher

HSP* 212 - Equipment Design and Layout

3 credits (Course has not been offered in the past two years) Presents the concepts of equipment and layout and their interrelationship in a well-organized food service facility. Considers equipment selection based on menu, volume, and budget requirements. Focuses on equipment design and layout methodology.
Prerequisite(s): HSP* 101 and HSP* 109.

HSP* 231 - Hospitality Law

3 credits Offered: Fall

Introduces the basics of hotel, motel, restaurant, and travel law. Covers the fundamental laws, rules, regulations, and contracts applicable to the hospitality and meetings industries. The hotel-guest relationship laws regarding food and beverage service, negotiation, mediation, and contract relationships between management and vendors will be discussed.

HSP* 232 - Restaurant Management

3 credits Focuses on the important elements involved in the successful operation and how they interrelate. The process of creating a concept, developing a menu, budgeting, controlling costs, staffing, purchasing food and equipment, bar and beverage management, daily operations, and developing a marketing plan will be covered.

HSP* 237 - Hospitality Marketing

3 credits Focuses on marketing and sales as they apply to the hospitality industries, especially methods of marketing a hotel, restaurant, and destination. Topics include marketing basics, the marketing plan, sales promotion, and special challenges in this industry. The relationship of sales and marketing to the meetings and conventions industry will be discussed.

HSP* 241 - Principles of Tourism and Travel

3 credits (Course has not been offered in the past two years) Introduces the tourism field, highlighting goals of the tourism profession and providing a guideline for achieving individual and collective success. Covers market analysis and conceptual planning of site development, transportation, accommodations, and support industries. Presents a comprehensive view of the field, dramatically bringing to the forefront the immense propositions of world tourism, examining its past and present, and providing a direction for the future.

HSP* 244 - Meetings, Conventions, and Special Events Management

3 credits Introduces methods of creating successful meetings, conventions, and special events. Topics include setting objectives, program design, site selection, budgeting, negotiations, room setups, audio visual, travel arrangements, and contracting for services.

HSP* 246 - Hotel Accounting and Front Office Management

3 credits Emphasizes accounting procedures and functions of the front office, including internal control procedures, guest services, housekeeping, and reservations. Places attention on the needs of management and the application of accounting concepts and techniques to managerial decision making. Explores the interaction of the front office and other areas of the hotel in relationship to customer service.

HSP* 249 - Food Writing

3 credits Students will find a way to express their culinary sensibilities in the form of reviews, essays, blogs, media presentations, cook books, and recipe writing. Much of the course will be devoted to analyzing both professional and student work.

HSP* 295 - Hospitality Management, Internship/Work Experience I

3 credits Provides an opportunity to gain experience in a hotel, restaurant, food service, travel or hospitality-related business. This must be a new experience to the student. Requires completion of 120 internship hours at a site conducive to the student's career goals which is designated by the instructor.

Prerequisite(s): Program coordinator's permission, a minimum GPA of 2.50, completion of 18 earned HSP credit hours and a GPA of 2.75 in HSP classes.

HSP* 298 - Hospitality Management Internship/Work Experience II

1 credits Provides an opportunity for students to gain experience in a hotel, restaurant, foodservice, travel or hospitality-related business. The student is responsible for seeking paid employment in the hospitality industry. A total of 280 hours must be completed and documented with paystubs between June 1 and August 10.

Prerequisite(s): HSP* 295, Program coordinator's permission, a minimum GPA of 2.50, completion of at least half of their program and earned at least 18 HSP credit hours and a GPA of 2.75 in HSP classes.

HUMAN SERVICES

HSE* 101 - Introduction to Human Services

3 credits Introduces the history, philosophy, ethics, and values of the human services field. Compares the variety of structures, goals, and methods of service delivery, focusing on the human service network of New Haven.

HSE* 151 - Introduction to Therapeutic Recreation

3 credits Presents the history, philosophy, and concepts of Therapeutic Recreation services in community and institutional settings. Students will learn how special population groups use and benefit from the skills of therapeutic recreation specialists.

HSE* 152 - Programming in Therapeutic Recreation

3 credits Offered: Fall

Teaches the purpose of recreational services, how to use the methods and materials. Describes the rehabilitation process and how to apply the correct programs to specific groups.

HSE* 153 - Methods and Materials for Therapeutic Recreation

3 credits Offered: Spring

Explains in a concentrated form the methods and materials used in various recreational settings. Assesses the physical, mental, emotional, and social abilities of clients who need therapeutic recreation services. Presents group activities that incorporate, among other methods, crafts, drama, dance, and music to create well-rounded therapeutic recreation programs.

Prerequisite(s): HSE* 152.

HSE* 212 - Mediation

OC: Oral Communication

3 credits Designed to introduce mediation philosophies, approaches, applications, and skills for all types of third-party conflict interventions. Provide students with opportunities to effectively use nonviolent communication strategies, evaluate and critique conflict situations and generate alternative dispute solutions in different environments: these include local businesses, nonprofit organizations, primary and secondary schools, and public health institutions. At the completion of the course, students will be able to observe, volunteer, co-mediate, and participate in specialized trainings at mediation centers around the state.

Prerequisite(s): ENG* 101 (or higher).

HSE* 228 - Youth Work Seminar

3 credits Students enrolled in the youth worker certificate program and who are also concurrently enrolled in either HSE* 281 will meet for this small group seminar. At these seminars, agencies will present ways in which they serve youth by implementing the youth worker philosophy in their provision of services. Students will learn to apply theoretical concepts to their practice specialty through direct experience and supportive seminar learning experiences.

Corequisite(s): HSE* 281

HSE* 243 - Human Services Skills and Methods

3 credits Course will examine Human Services through various strategies and skills. Helping strategies involving case work, natural helping networks, assessment, and evaluation will be explored. Skills will be developed in the areas of observation, listening intake referral and report writing. Lecture Hours: 3HSEpsy
Prerequisite(s): ENG* 101, HSE* 101, PSY* 111, SOC* 101

HSE* 247 - Supervisors' Seminar

3 credits Offered: Spring

Focuses on concepts, principles, and methods of supervising new professionals and/or paraprofessionals. Focuses on issues confronting the supervisor in traditional settings. Intended for administrators, managers, teachers, and professionals who work in human service agencies and organizations.

HSE* 281 - Human Services Field Work I

3 credits Provides prospective human services workers with an opportunity to learn experientially at a human services agency in the community. Focuses on how an agency functions through direct experience. Requires a minimum of 100 hours at the placement site.
Prerequisite(s): ENG* 101, HSE* 101, PSY* 111, SOC* 101

INTERDISCIPLINARY PEACE, COLLABORATION, & CONFLICT

HUM* 125 - Introduction to Peace and Conflict Studies

CALT: Critical Analysis/Logical Thinking
3 credits Presents an interdisciplinary study of the concepts of positive and negative peace, nonviolence, human rights, justice, truth and reconciliation, peacebuilding, peace makers and peace keeping as they relate to economic, sociological, psychological, historical, political, technological, cultural, ideological, geographical, and environmental factors.
Prerequisite(s): Eligibility for ENG* 101.

IDS 292 - Peace/Conflict Service Learning Internship

3 credits Designed to provide students a professional employment environment where they can apply skills in conflict resolution, resolving ethical conflicts, and the use of mediation developed through the Interdisciplinary Peace, Collaboration and Conflict Certificate coursework. Students focus on career paths and continued study at institutions of higher learning. This course provides opportunities for extended training, research projects and presentations for workshops and conferences. Requires 60 hours with a minimum of 6 hours a week at placements and/or extended trainings.
Prerequisite(s): HUM* 125, PHL* 111, HSE* 212, and 3 credits of restricted electives.

MANUFACTURING ENGINEERING TECHNOLOGY

MFG* 102 - Manufacturing Processes

3 credits Provides theoretical concepts of manufacturing and develops the knowledge and skills required in the manufacturing process. The laboratory portion introduces common metal cutting tools, lathe operations, and associated precision measuring tools and instruments. Labs will involve set-up and preparation of milling machines, lathes, grinders, and drill presses. Lecture Hours: 2 Lab Hours: 3
Corequisite(s): ARC* 133.

MFG* 108 - Computer Aided Manufacturing

4 credits Focuses on the process of manual and automated preparation of computerized manufacturing system programs. The laboratory portion provides experience in the manual and automated preparation of computerized manufacturing system programs. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MFG* 102.

MFG* 116 - Quality Assurance Organization and Management

4 credits Develops the concepts of a Total Quality System (TQS), including policies, objectives, and organization. Reviews such topics as cost of quality, planning, improvement techniques, reliability, supplier relations, and evaluations. Addresses inspection, measurement, and process control techniques. Covers customer and consumer relations.

MFG* 204 - Advanced Computer Aided Manufacturing

4 credits Builds on the skills learned in CAM I with sharper focus on the integration of CAD and CAM for fast prototyping and design for manufacturing. The laboratory portion introduces practical applications for automated CAM systems. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MFG* 108.

MFG* 208 - Process Engineering

4 credits Introduces the principles and techniques used to design the most efficient method of product manufacturing, establish the best sequence of operations, select the proper machines to perform the operations, evaluate the need for special tooling, and provide conceptual sketches of special tools. The laboratory portion consists of workshop problems that prepare the student for an entry-level position in manufacturing process design. Exercises cover such conventional machine tools as turn, drill, mill, broach, CNC, grind, and miscellaneous processes. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MFG* 102.

MFG* 210 - Materials of Engineering

4 credits Studies the structure and properties of engineering materials. Discussed materials selection, processing and heat treatment. Addresses the changes in structure and properties during forming, machining and heat treating operations. The laboratory portion uses selected experiments to demonstrate the effects of processing including heat treatment on the properties of engineering materials. Standard materials tests are also performed. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MFG* 102.

MFG* 216 - Tool Designing

CALT
4 credits Covers the theory of metal cutting tools design. Presents the principles, practices, tools, and commercial standards of single point, jig, fixture, and die design through lectures, visual aids, and individual projects and design work. The laboratory portion provides practice in the design of metal cutting tools. Lecture Hours: 2 Lab Hours: 4
Prerequisite(s): CAD* 108 and MFG* 102.

MFG* 228 - Computer Integrated Manufacturing I

4 credits Covers computer generated CNC programming, robot programming, analog programmable logic control programming, and interfacing of robots, controllers and machine tools. Discussed part families, CAD/CAM and Flexible Manufacturing Systems. The laboratory portion provides practice in writing computer generated CNC programs, robotic programming and interfacing and analog programmable logic controller programming. A flexible manufacturing system is programmed. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): CAD* 108, MFG* 108.

MFG* 230 - Statistical Process Control

3 credits Presents a practical management aid adapted from the science of statistics. Presents topics ranging from basic statistical concepts to techniques for cost and quality control, emphasizing control by charting and acceptance sampling. Uses the computer as an aid in calculation and control chart preparation.
Prerequisite(s): MFG* 102.

MFG* 239 - Geometric Dimensioning and Tolerancing

3 credits Focuses on the industrially accepted ANSI Specification Y14.5-1973 and ANSI Y14.5M-1982. The ANSI Y14.5 specification creates a unified language that specifies engineering requirements related to the actual function of and relationship between parts. Includes the application of form, profile, orientation, runout, and location types of geometric characteristics, including the application of the feature control frame and tolerance and datum modifiers.

MFG* 296 - Manufacturing Internship

3 credits Provides practical experience in the manufacturing field. The assignment can involve one or more of the subjects relevant to manufacturing engineering technology, including drafting, manufacturing processing, CAD, CAM, quality control, and tool design.
Prerequisite(s): Good academic standing and the consent of the academic advisor or the Manufacturing Program Coordinator.

MECHANICAL ENGINEERING TECHNOLOGY

MEC* 104 - Mechanics - Statics

3 credits Analyzes the forces acting on various types of two- and three-dimensional structures in static equilibrium. Studies the composition and resolution of forces acting on beams, trusses, frames, and machines. Also covers centroids, distributed forces, moments of inertia, and friction. The laboratory portion provides problem-solving applications of the theory learned in the classroom, emphasizing engineering analysis and the preparation of written reports. Lecture Hours: 3
Prerequisite(s): MAT* 175 or PHY* 121 or sufficient score on the mathematics placement test.

MEC* 234 - Electromechanical Controls

4 credits Introduces the student to the fundamentals of electric circuits and electrical machinery emphasizing DC/AC single and polyphase motors and generators. Presents electrical methods of manual and automatic control of mechanical systems. The laboratory portion covers motors, control systems, digital logic, and applications. Emphasizes the organization, report, and interpretation of test data in a written report for each experiment. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MAT* 095 or sufficient score on the mathematics placement test.

MEC* 240 - Fundamentals of Thermodynamics

4 credits Presents the thermodynamic principles of heat, work, non-flow and steady flow processes, and thermodynamic cycles. Stresses the fundamental principle of energy conversion and the use of thermodynamic data tables and charts. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MEC* 104. **Corequisite(s):** MAT* 186

MEC* 250 - Strength of Materials

3 credits Covers the principles involved in the analysis of stresses in machine and structural elements under various types of loads. Analyzes these stresses in thin-walled cylinders and spheres, riveted and welded joints, beams, columns, cast sections, couplings, and shafts. The laboratory portion investigates material strength and the intelligent use of existing references. In the lab, students work in small groups to conduct their own measurements of the mechanical properties of common materials. Uses microcomputers to analyze experimental data and prepare final reports. Lecture Hours: 2 Lab Hours: 3
Prerequisite(s): MEC* 104. **Corequisite(s):** MAT* 175.

MEC* 265 - Materials Science

4 credits Introduces the internal structure of metallic, polymeric, and ceramic solids and their physical, mechanical, electrical, and chemical properties in engineering applications. The laboratory portion investigates the reactions that take place in materials subjected to a variety of tests. Introduces students to ASTM standards and procedures. Lecture Hours: 3 Lab Hours: 2
Corequisite(s): PHY* 121.

MEC* 271 - Fluid Mechanics

4 credits Introduces fluid mechanics, basic fluid characteristics, hydrostatics, pressure, center of pressure, and pressure measuring devices. Demonstrates the application of the general energy equation to fluid in motion. Also demonstrates the modifications necessary to analyze the effect of viscosity and friction of fluid flow, pressure heads, and pumping calculation. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MEC* 104. **Corequisite(s):** MAT* 186 .

MEC* 283 - Design of Machines

CALT
4 credits Presents the concept of Mechanical Design, from concept to specifications. Covers the procedures, data, and techniques necessary to design such mechanical components as gears, springs, bearings, belt and chain drives, clutches, brakes, fasteners, shafts, and screws. Emphasizes the use of computers in the design process. The laboratory portion combines all previous study dealing with machine elements. Uses computer-aided design solutions and requires a design project. This project includes an analysis of individual components, assembly, and detail drawings. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): MEC* 250, MEC* 265, and CAD* 108.

MEC* 296 - Mechanical Engineering Internship

2 credits Provides Mechanical Engineering Technology students with a semester of external related career experiences designed to enhance the student's preparedness for an intended career with business, industry or government agency. A comprehensive written report on the Internship practice is required. To be eligible for the internship, a student must be of good academic standing and have program advisor approval.

MATHEMATICS

MAT* 079 - Quantitative Literacy Prep
3 credits Provides students the skills necessary to be successful in a quantitative literacy or elementary statistics course through a study of vocabulary, unit conversions and dimensional analysis, personal finance applications, and the development of calculator skills. Lecture Hours: 3
Prerequisite(s): Instructor/Department permission required

MAT* 085 - Elementary Algebra Foundations w/Pre-Algebra
6 credits Embeds additional support into the MAT* 095 topics to present an introductory course in Algebra including a concentrated arithmetic review. Topics include whole numbers, signed numbers, decimals, fractions, ratios, proportions, percent, estimation, geometry, linear equations and inequalities in one variable, graphing linear equations and inequalities in two variables, formulating equations of lines in two variables, an introduction to functions, solving systems of linear equations, rules of integral exponents, and operations on polynomials. Credit does not count toward degree requirements or graduation. A Graphing Calculator is required: TI-83 or TI-84 family is strongly recommended.

MAT* 095 - Elementary Algebra Foundations
3 credits A study of the basic properties and theorems of real numbers, including the manipulation of polynomials and expressions containing rational and radical terms as well as integer exponents. Topics also include linear equations in one and two variables, systems of linear equations in two variables, and an introduction to functions. There is an emphasis on real world applications in both algebra and geometry. Credit does not count toward degree requirements or graduation. A graphing calculator is required--TI-83 or TI-84 family is strongly recommended.
Prerequisite(s): A grade of C or better in MAT 075 or MAT* 085/MAT* 097 or sufficient score on the mathematics placement test.

MAT* 100 - Intermediate Algebra Support
0 credits This course is intended to provide support for intermediate algebra by reviewing and enhancing the skills and procedures needed to master the topics covered in intermediate algebra. This course will ensure that the students receive support and assistance that should lead to successful completion of intermediate algebra in one semester. The course cannot be taken alone and does not fulfill the mathematics general education requirement nor can it be used for mathematics requirement of any program or certificate. Pass/Fail course. Lecture Hours: 2
Prerequisite(s): A grade of C or higher in MAT* 085 or sufficient score on the mathematics placement exam. **Corequisite(s):** MAT* 137

MAT* 109 - Quantitative Literacy
3 credits Introduces the language of mathematics. Topics include consumer mathematics, percent, personal loans and simple interest, compound interest, installment buying, buying a house with a mortgage, annuities and sinking funds. A brief study of the

history of mathematics, including early numeration systems. A basic introduction to game theory and voting and apportionment. This course may be used to satisfy the mathematics requirement for graduation.
Prerequisite(s): MAT* 085, MAT* 095, MAT 095A, B, and C, MAT* 097 with a grade of D or better, or MAT* 079 with a grade of C or better, or sufficient score on the mathematics placement test

MAT* 115 - Mathematics for Science and Technology

3 credits Presents basic mathematical concepts needed in the science and technology fields. Includes scientific notation, English and metric systems, solutions to first- and second-degree equations, systems of equations, logarithms, elementary geometry, statistics, graphing, and trigonometry. Introduces the scientific calculator.
Prerequisite(s): A grade of C or better in MAT* 085, MAT* 095, MAT 095 A, B, or C, MAT* 097 or sufficient score on the mathematics placement test.

MAT* 117 - Introduction to Finite Mathematics

3 credits Presents various mathematical topics, including a review of basic algebraic concepts, mathematics of finance, systems of linear equations and matrices, linear inequalities and linear programming, probability, and game theory.
Prerequisite(s): A grade of C or better in MAT* 085, MAT* 095, MAT* 095 A, B, or C, MAT* 097 or sufficient score on the mathematics placement test.

MAT* 123 - Elementary Statistics

3 credits Considers fundamental concepts of probability and statistics including mean, median, mode for grouped and non-grouped data, permutations, combinations, applications of distributions, hypothesis testing, and confidence intervals.
Prerequisite(s): A grade of C or better in MAT* 085, MAT* 095, MAT* 095 A, B, or C, MAT* 097 or sufficient score on the mathematics placement test.

MAT* 137 - Intermediate Algebra

3 credits Presents a study of linear, radical, rational, quadratic, and exponential functions represented by tables, graphs, words, and symbols. Focus is on the manipulation of expressions and the solving of equations using multiple methods. There is emphasis on modeling and applications for all topics. A graphing calculator is required.
Prerequisite(s): A grade of C or better in MAT* 095 or sufficient score on the mathematics placement test. **Corequisite(s):** A grade of C or better in MAT* 085 AND the co-requisite of MAT* 100

MAT* 142 - Mathematics for the Natural Sciences

QR: Quantitative Reasoning
3 credits Presents the numerical and algebraic manipulation of data, curve sketching, and curve fitting. Solutions to problems with a calculator, using examples from the natural sciences. This course may be used to satisfy the mathematics requirement for graduation.
Prerequisite(s): A grade of C or better in MAT* 137, Higher, or MAT* 137C or sufficient score on the mathematics placement test.

MAT* 143 - Mathematics for Elementary Education: Algebra/Number Systems I

QR: Quantitative Reasoning
3 credits Presents mathematical reasoning for problem solving sets, whole numbers, numeration systems, number theory, and integers. Required of all students in and working toward certification in elementary education. This course may be used to satisfy the mathematics requirement for graduation.
Prerequisite(s): A grade of C or better in MAT* 137, Higher, or MAT* 137C or sufficient score on the mathematics placement test.

MAT* 144 - Mathematics for Elementary Education: Geometry and Data

3 credits Presents geometry, measurement, rational numbers, irrational numbers, ratio, proportion, percent, problem solving, mathematical reasoning and connections, probability, and statistics. This course may be used to satisfy the mathematics requirement for graduation.
Prerequisite(s): A grade of C or better in MAT* 143.

MAT* 146 - Mathematics for the Liberal Arts

QR: Quantitative Reasoning

3 credits Intended for the student whose major field of study requires no specific mathematical preparation. This course examines logical structures, patterns and method of abstractions as they occur in a variety of basic mathematical topics such as set theory and number theory. Some historical aspects of mathematics are considered.

Prerequisite(s): A grade of C or better in MAT* 137, Higher, or MAT* 137C or sufficient score on the mathematics placement test.

MAT* 151 - Mathematics of Finance

QR: Quantitative Reasoning

3 credits Presents the basic mathematical operations of finance. Includes allocation of depreciation and overhead costs, financial statements and ratios, inventory evaluation, trade and case discounts, simple interest and bank discount, multiple payment plans and various compound interest calculations. Introduces and expands upon certain topics in the accounting sequence.

Prerequisite(s): MAT* 137, Higher, or MAT* 137C.

MAT* 158 - Functions, Graphs, & Matrices

QR: Quantitative Reasoning

3 credits Presents selected topics from contemporary mathematics with applications for students in business, economics, and social science. Topics include concepts of functions and rate of change, a review of algebraic and graphical aspects of polynomial functions, a study of exponential and logarithmic functions, mathematical modeling, set theory, probability and combinatorics, and operations on systems of linear equations including matrix operations. A graphing calculator is used throughout the course.

Prerequisite(s): A grade of C or better in MAT* 137, MAT* 137A, or MAT* 137C or sufficient score on the mathematics placement test. **Corequisite(s):** Eligibility for ENG* 101.

MAT* 166 - Principles of Business Statistics

QR: Quantitative Reasoning

3 credits Presents statistical techniques appropriate for analyzing and solving problems in business and social science. Students will learn statistical concepts and methods of solving statistical problems. Introduces the following: data presentation in tabular and graphic forms, measures of central tendency and dispersion, time series, probability, statistical inference, hypothesis testing, analysis of variance, regression and correlation analysis, and decision-making theory. Uses computing statistical software such as Excel with add-ins and/or technology as needed or appropriate. **This course is for business majors only**.

Prerequisite(s): A grade of C or better in the following courses: MAT* 137 and CSA* 135 <u>or</u> BBG* 115

MAT* 167 - Principles of Statistics

QR: Quantitative Reasoning

3 credits Introduces the concepts of collecting and compiling data. Reviews data presentation in tabular and graphic forms, bivariate data and its presentation, probability and probability structures, inferential statistics, analysis of variance, and hypothesis testing. Uses statistical computing software.

Prerequisite(s): MAT* 137, Higher, or MAT* 137C.

MAT* 172 - College Algebra

QR: Quantitative Reasoning

3 credits Briefly reviews the algebraic operations of real numbers. Offers an intense study of logarithms, exponential and logarithmic functions, systems of equations, determinants and matrices, and complex numbers.

Prerequisite(s): A grade of C or better in MAT* 137A or sufficient score on the mathematics placement test. **Updated in Spring 2020 to include**: A grade of C or better in MAT* 137C; or MAT* 137.

MAT* 175 - College Algebra and Trigonometry

QR: Quantitative Reasoning

3 credits Covers the basic manipulation of algebraic expressions, equations, and inequalities. Introduces factoring, trigonometry, exponents, radicals, and graphing. Uses the graphing calculator.

Prerequisite(s): Updated in Spring 2020: A grade of C or better in MAT* 137, MAT* 137A,MAT* 137C , MAT* 137S or sufficient score on the mathematics placement test.

MAT* 185 - Trigonometric Functions

QR: Quantitative Reasoning

3 credits Studies trigonometric functions, identities, and conditional trigonometric equations. Includes multiple angle functions, radian measure, and selected applications of trigonometry.
Prerequisite(s): MAT* 172 or MAT* 175.

MAT* 186 - Precalculus

QR: Quantitative Reasoning

4 credits Covers symmetry and transformation, polynomial and rational functions, exponential and logarithmic functions and equations, trigonometric functions, trigonometric identities, inverse functions and equations. Addresses advanced trigonometry and applications. Includes such topics as partial fractions, conic section, and non-linear systems of equations and inequalities in preparation for Calculus I. Uses the graphing calculator.
Prerequisite(s): A grade of C or better in MAT* 172 or MAT* 175 or permission of instructor.

MAT* 210 - Discrete Mathematics

3 credits Provides an introduction to set theory, logic, number theory, and methods of proof. Relations and functions, mathematical induction, recursion, graph theory, and algorithms will be discussed. Lecture Hours: 3
Prerequisite(s): MAT* 186 with a grade of C or better or permission from the department.

MAT* 222 - Statistics II with Technology Applications

QR: Quantitative Reasoning

3 credits Designed for those students who desire a more in-depth study of statistics, especially those wishing to transfer to a four-year institution. This data-driven course will cover the following topics: two variable hypothesis testing, statistical inference about means proportions with two populations, linear regression and correlation, multiple regression, analysis of variance, inferences about population variances, goodness of fit and independence, CHI squared test, and nonparametric methods. Statistical software in integrated in this course. Lecture Hours: 3
Prerequisite(s): MAT* 166 or MAT* 167 with a grade of C or higher

MAT* 230 - Applied Calculus with a Modeling Approach

3 credits Presents selected topics from calculus with applications in business, economics, and social science. Students will learn the fundamental concepts of calculus and how to apply them to real-life problems. A major goal is to develop conceptual understanding (rather than algebraic manipulation) through the use of graphing calculators and through the consideration of graphical, numerical, and algebraic perspectives. The major conceptual focus is on rates of change and their interpretations within the problem context. The definition of integral, the fundamental theorem of calculus, some selected application of integration and some integration techniques are included. A TI-83+/TI-84+ graphing calculator is required and used throughout.
Prerequisite(s): A grade of C or better in MAT* 158 or higher and eligibility for ENG* 101.

MAT* 254 - Calculus I

QR: Quantitative Reasoning

4 credits Applies limits, continuity, differentiation, antidifferentiation, and definite integrals to the physical and engineering sciences. Includes use of graphing calculators and/or computer laboratory activities.
Prerequisite(s): A grade of C or better in MAT* 185, MAT* 186.

MAT* 256 - Calculus II

QR: Quantitative Reasoning

4 credits Applies transcendental functions, formal integration, polar coordinates, infinite sequences and series, vector algebra, and geometry to the physical and engineering sciences. Includes use of graphing calculator and/or computer laboratory activities.
Prerequisite(s): A grade of C or better in MAT* 254.

MAT* 268 - Calculus III: Multivariable

QR: Quantitative Reasoning

4 credits Covers two- and three-dimensional vector algebra, calculus of functions of several variables, vector differential calculus, and line and surface integrals.

Prerequisite(s): A grade of C or better in MAT* 256.

MAT* 272 - Linear Algebra

3 credits A comprehensive introduction to linear algebra and its applications, including matrix algebra and reduction techniques, vector spaces, linear transformations, and Eigenvalue theory. Graphing calculators and computer software will be used.

Prerequisite(s): A grade of C or better in MAT* 268 or departmental permission.

MAT* 285 - Differential Equations

QR: Quantitative Reasoning

3 credits Introduces ordinary differential equations and their applications, linear differential equations, systems of first order linear equations, and numerical methods.

Prerequisite(s): A grade of C or better in MAT* 268.

MUSIC

MUS* 101 - Music History and Appreciation I

AD: Aesthetic Dimension of Humankind

3 credits Surveys the biographies of composers and styles of music literature from the Medieval, Renaissance, Baroque, Classical, and Romantic eras. Emphasizes historical fact, listening skills, and music vocabulary for enjoyment. Requires attendance at one concert.

MUS* 115 - Music Theory I

3 credits Develops skills in music reading, ear training, and melodic and harmonic analysis. Analyzes composition through counting, reading, and pitch notation in the classroom and laboratory.

MUS* 116 - Music Theory II

3 credits Builds on skills learned in MUS* 115 - Music Theory I. Includes analysis of form, structure, and compositional techniques.

Prerequisite(s): MUS* 115 or instructor's permission.

MUS* 126 - 20th Century/Modern Music

3 credits Surveys twentieth century composers, their musical styles, and influences from the Post-Romantics. Includes such composers as Schoenberg, Stravinsky, Bartok, and Copland. Discusses some contemporary compositions in jazz, rock, country, and new musical styles.

Prerequisite(s): MUS* 101.

MUS* 141 - Guitar I

AD: Aesthetic Dimension of Humankind

3 credits A guitar course for students with no previous guitar experience. Students must provide their own instruments and supplies.

MUS* 150 - Class Piano I

AD: Aesthetic Dimension of Humankind

3 credits Provides a foundation in piano performance and musicianship for beginning students. The comprehension of rhythmic, melodic, and chordal music notation is achieved by playing various styles of piano music in at least two keys.

NUCLEAR MEDICINE TECHNOLOGY

NMT* 101 - Introduction to Nuclear Medicine
3 credits Introduces the student to the healthcare environment and the field of nuclear medicine technology. Topics covered include: medical terminology, patient care, medical ethics, medicolegal issues, radiation safety and protection and an introduction to radiopharmacy.
Prerequisite(s): Acceptance into the Nuclear Medicine Technology Program and full attendance during freshman orientation.
Corequisite(s): NMT* 111.

NMT* 102 - Nuclear Medicine Procedures I
3 credits Introduces basic nuclear medicine technology procedures.
Prerequisite(s): Acceptance into the Nuclear Medicine Technology Program and full attendance during freshman orientation.
Corequisite(s): NMT* 111.

NMT* 111 - Clinical Practicum I
1 credits Introduces the clinical setting and general nuclear medicine areas through simulated labs and hands-on training.
Prerequisite(s): Acceptance into the Nuclear Medicine Technology Program and full attendance during freshman orientation.
Corequisite(s): NMT* 101 and NMT* 102.

NMT* 112 - Clinical Practicum II
1 credits Emphasizes, through simulated labs and hands-on training, the handling and positioning of patients and the application of clinical nuclear medicine procedures.
Prerequisite(s): NMT* 113 for NMT AS degree students only. **Corequisite(s):** NMT* 121.

NMT* 113 - Clinical Internship I
0.5 credits Students attend clinical training Monday through Friday, eight hours per day.
Prerequisite(s): NMT* 111.

NMT* 121 - Physics in Nuclear Medicine
3 credits Introduces the physics of nuclear medicine as a framework for the principles behind nuclear composition, energy concepts, and units of radioactive decay. Stresses radiation level calculation and understanding the process by which radiation interacts with matter.
Prerequisite(s): PHY* 111. **Corequisite(s):** NMT* 112.

NMT* 126 - Clinical Internship II
3 credits Students attend clinical training Monday through Friday, eight hours per day, minimum of 400 clinical hours.
Prerequisite(s): NMT* 112.

NMT* 201 - Nuclear Medicine Procedures II
3 credits Covers nuclear medicine procedures, emphasizing anatomy, physiology, and pathology as they pertain to oncology, infection/inflammation, skeletal, cardiovascular and respiratory systems. Students perform Internet searches and present oral reports on findings pertinent to current nuclear medicine procedures. Students also present a case study that relates to one of the organ systems being studied.
Prerequisite(s): NMT* 102. **Corequisite(s):** NMT* 112.

NMT* 202 - Nuclear Medicine Instrumentation
3 credits Examines the processes of converting radiation interactions into electrical signals for counting and measuring by nuclear probes and cameras. Assesses and investigates Nuclear Medicine camera systems and their physical imaging characteristics in hands-on experiments.
Corequisite(s): NMT* 211.

NMT* 203 - Radiopharmacy
3 credits Covers the pharmacological basis, preparation, and quality control of radiopharmaceuticals used in nuclear medicine.
Prerequisite(s): CHE* 111. **Corequisite(s):** NMT* 211.

NMT* 211 - Clinical Practicum III
2 credits Continues to develop competencies gained in Clinical Practicum II. Through simulated labs and hands-on training, students will achieve competency in advanced imaging procedures and equipment use.
Prerequisite(s): NMT* 121 and NMT* 126. **Corequisite(s):** NMT* 203.

NMT* 212 - Clinical Practicum IV
2 credits Introduces a sophisticated use of nuclear medicine technology and instrumentation. Students build on competencies achieved in Clinical Practica I, II, and III.
Prerequisite(s): NMT* 216. **Corequisite(s):** NMT* 221.

NMT* 216 - Clinical Internship III
0.5 credits Students attend clinical training Monday through Friday, eight hours per day.
Prerequisite(s): NMT* 211.

NMT* 221 - Nuclear Medicine Procedures III
3 credits Builds on the procedures and organ systems presented in Nuclear Medicine Procedures I, including pharmacological intervention, the central nervous, endocrine, gastrointestinal, genitourinary systems and radionuclide therapies. Students will examine case images and present findings pertinent to nuclear medicine procedures.
Prerequisite(s): NMT* 201. **Corequisite(s):** NMT* 212.

NMT* 222 - Introduction to Computers and Nuclear Medicine Applications
3 credits Introduces the use of computers in Nuclear Medicine Technology. Concentrates on computer hardware and acquisition, data analysis, and interpretation of computer studies in Nuclear Medicine.
Prerequisite(s): NMT* 202. **Corequisite(s):** NMT* 212.

NMT* 223 - Nuclear Medicine Seminar
CALT: Critical Analysis/Logical Thinking
3 credits Reviews quality control procedures, state and federal regulations, radiation safety, radiobiology, marketing and management of nuclear medicine technology departments, and career and professional development skills.
Corequisite(s): NMT* 212.

NURSING

NUR* 101 - Introduction to Nursing Practice
8 credits Focuses on concepts basic to nursing practice. Emphasis is placed on application of the nursing process, communication, and skill acquisition. Clinical and laboratory experiences offer opportunities to integrate theoretical principles and demonstrate caring and competence in beginning professional role development. 180 (clinical) Lecture Hours: 60

NUR* 120 - Nursing in Health & Illness I
9 credits Provides an introduction to the art and science of nursing using concepts of nursing practice. Concepts related to the nursing profession, health and illness, health care systems and patient attributes are introduced and integrated throughout the course. Learning experiences in this course assist the student to integrate knowledge from pre- and co-requisite courses into the provision of patient-centered care. Active learning strategies are employed in this course to introduce and develop critical thinking skills and self-directed lifelong learning. Lecture Hours: 5 Lab Hours: 12
Prerequisite(s): BIO* 212, BIO* 235, ENG* 101, PSY* 111 **Corequisite(s):** BIO* 235, PSY* 111

NUR* 125 - Nursing in Health & Illness II

8 credits Builds upon concepts of nursing practice introduced in NUR* 120. This course integrates a holistic, family-centered approach to the nursing and inter-professional care of patients, families and groups across the lifespan. Emphasis is placed upon organizational skills of the nurse as a member of the inter-professional health care team. Learning experiences provide the student an opportunity to demonstrate critical thinking skills as course concepts are applied in the implementation of safe, patient-centered care in a variety of settings. Active learning strategies are employed in this course to promote the continued development of critical thinking and self-directed lifelong learning. Lecture Hours: 4 Lab Hours: 12
Prerequisite(s): NUR* 120, PSY* 201, SOC* 101 **Corequisite(s):** PSY* 201, SOC* 101

NUR* 126 - Transition to CT-CCNP Concept-Based Curriculum

1 credits This course eases the transition to the new Concept-Based curriculum and positions students for success. Students in this course engage in ndependent and group learning activities designed to familiarize them with concept-based teaching and learning to support successful transition to the CSC. Students complete learning activities based upon their level of entry into the CBC. Lecture Hours: 1
Prerequisite(s): NUR* 101 or NUR* 102 or NUR* 103 or NUR* 201 or NUR* 202 Notes: This course was created due to the CT-CCNP implementation of a curriculum revision that necessitates a transition process for students readmitted to the CT-CCNP from the previous CT-CCNP curriculum from the fall 2910 forward.

NUR* 132 - LPN to RN Transition I

2 credits This course is the final component of the Connecticut League for Nursing LPN to RN Articulation plan for the Connecticut Community Colleges Nursing Program (CT-CCNP) which prepares LPNs to enter the CT-CCNP in the second year of study. Students enrolling in this course have been accepted for admission into the (CT-CCNP) and have chosen the option to enter the third semester.
Prerequisite(s): Connecticut Community Colleges BIO* 211 - Anatomy and Physiology I, BIO* BIO* 212 - Anatomy and Physiology II, BIO* 235 - Microbiology, ENG* 101 - Composition, PSY* 111 - General Psychology I, PSY* 201 - Life Span Development, SOC* 101 - Principles of Sociology; Charter Oak State College NUR 190: LPN to RN Articulation Bridge Course.

NUR* 152 - LPN to RN Transition

2 credits This course is the final component of the LPN to RN articulation plan for LPNs who are accepted into the CT-CCNP LPN to RN program option. During this course, students engage in learning activities to support a successful transition into the final year of the associate degree Nursing program. Students are introduced to the concept-based learning environment and supporting course resources. Students are provided with the opportunity to practice critical-thinking and demonstrate level competencies in the laboratory and/or clinical setting. Emphasis is placed on the assessment and clinical skills necessary to provide safe, patient-centered care as a member of the interprofessional healthcare team. Lab Hours: 8
Prerequisite(s): BIO* 212, BIO* 235, ENG* 101, PSY* 111, PSY* 201, SOC* 101, Charter Oak State College NUR 190; LPN to RN Articulation Bridge Course.

NUR* 201 - Nursing Care of Individuals and Families I

CALT: Critical Analysis/Logical Thinking
9 credits Focuses on holistic care of individuals and families with a variety of health care needs across the lifespan with a variety of health care needs. The needs of the clients experiencing endocrine, respiratory, gastrointestinal, cardiovascular conditions and selected mental health disorders are examined. Bioterrorism as a health care issue will be addressed. Clinical laboratory experience provides the student and opportunity to administer care to a diverse population of clients in a variety of acute care and community health care settings. The student will utilize critical thinking, caring, professionalism, and communication skills in the care of the client. Emphasis is placed on provision of safe and competent care and development of the professional role as a member of a multidisciplinary health care team. During the semester, the student is increasingly challenged in the clinical area with more complex client assignments. 225 (clinical) Lecture Hours: 60
Prerequisite(s): NUR* 102, NUR* 103, PSY* 201, SOC* 101. **Corequisite(s):** NUR* 202, ENG* 102.

NUR* 202 - Pharmacology for Individuals and Families with Intermediate Health Care Needs

1 credits Focuses on the principles of pharmacology and its nursing application to individuals and families with intermediate health care needs and selective psychiatric disorders. (1 credit: 15 hours theory) Lecture Hours: 15

NUR* 203 - Nursing Care of Individuals and Families II

8 credits Focuses on providing holistic care to individuals, families, and groups with complex health care needs. It examines the effect of multi-system alterations and selected mental health disorders. The student will incorporate critical thinking, caring behaviors, professionalism and communications skills when providing care. Clinical experiences are provided in acute care, mental health care and community settings with an emphasis on managing multiple clients. 225 (clinical) Lecture Hours: 45

NUR* 204 - Pharmacology for Individuals, Families, and Groups with Complex Health Care Needs

1 credits Focuses on the principles of pharmacology and its nursing application to individuals and families with intermediate health care needs and selective psychiatric disorders. Lecture Hours: 15

NUR* 205 - Nursing Management and Trends

2 credits Focuses on the transition into the profession and the nurse's role in contemporary nursing practice. Professionalism is emphasized. Students will explore management principles and delegation of client care. Students will participate in critical thinking to evaluate current trends and contemporary issues in nursing. Lecture Hours: 30

NUR* 220 - Nursing in Health & Illness III

CALT

9 credits Designed to further develop concepts of nursing practice introduced in Nursing, Health & Illness Concepts I & II. Focuses on the nursing and inter professional care of patients, families, groups and communities with a variety of complex health care needs across the lifespan. Emphasis is placed upon management and coordination of care and the related organizational skills of the nurse as a member of the inter professional health care team. Learning experiences provide the student an opportunity to demonstrate clinical reasoning as course concepts are applied in the implementation of safe, patient-centered care in a variety of settings. Active learning strategies are employed in this course to promote the development of clinical reasoning and self-directed lifelong learning. Lecture Hours: 4.5 Lab Hours: 13.5
Prerequisite(s): BIO* 235, NUR* 125, PSY* 111, PSY* 201 SOC* 101 and ENG* 102 or ENG* 200 **Corequisite(s):** ENG* 102 or ENG* 200

NUR* 225 - Nursing in Health & Illness IV

8 credits Designed to further develop concepts of nursing practice introduced in Nursing, Health & Illness Concepts I, II and III. Focuses upon the holistic nursing and inter professional management and coordination of care for patients, families, groups and communities with a variety of complex health care needs across the lifespan. Emphasis is placed on the related organizational skills of the nurse as a member of the inter professional health care team. Learning experiences provide the student an opportunity to demonstrate clinical judgment as course concepts are applied in the implementation of safe, patient-centered care in a variety of settings. In addition, a portion of clinical experiences within this course provide the student with the opportunity to demonstrate knowledge skills and attitudes (KSAs) that reflect awareness of the leadership and management roles of the nurse as a member of the inter professional health care team. Active learning strategies are employed in this course to promote the development of clinical reasoning and self-directed lifelong learning. Lecture Hours: 3 Lab Hours: 15
Prerequisite(s): NUR* 120, NUR* 125, NUR* 220, a Humanities or Fine Arts course or college specific requirement.
Corequisite(s): NUR* 226, and a Humanities or Fine Arts course or college specific requirement.

NUR* 226 - Transition to Professional Nursing Practice

1 credits Focuses on advanced concepts of nursing practice as they relate to leadership, management, and interprofessional relationships at all levels of patient care. Explores the curricular concepts evidence-based practice, health care policy and economics, leadership,professionalism, quality improvement, safety, systems based practice, and teamwork and collaboration in greater depth. Emphasis is placed upon clinical judgment as it impacts clinical decision making and priority setting in a variety of settings within the health care system. Learning experiences assist the student to synthesize concepts in a manner that promotes quality improvement in clinical nursing practice for the benefit of patients, families, groups, communities, and populations across the lifespan. Active learning strategies are employed in this course to engage students in the development and application of nursing leadership and management skills as self-directed lifelong learners. Lecture Hours: 1
Prerequisite(s): NUR* 120,NUR* 125, NUR* 220 and a Humanities or Fine Arts or college specific requirement.
Corequisite(s): NUR* 225 and a Humanities or Fine Arts or college specific requirement.

NUTRITION & DIETETICS

NTR 106 - Culinary Nutrition
2 credits Provides a basic understanding of nutrition and its relationship to health. Provides an overview of nutrients, digestion, absorption, and metabolism. This course will also provide information on good food sources of the nutrients, purchasing, cooking methods and menu planning.

NTR* 101 - Introduction to Dietetics
3 credits Discusses career and educational pathways for dietetic technicians and registered dietitians. Introduces students to the health care team concept and describes the roles of health professionals. Covers ethical issues in health care and nutrition.

NTR* 102 - Nutrition I: Principles of Nutrition
3 credits Investigates the basic nutrients and current guidelines for healthy food preparation and selection.

NTR* 103 - Nutrition Therapy I
3 credits Applies the principles of nutrition assessment, menu planning, and the nutrition care process to meet the needs of individuals and groups with a variety of nutritional requirements.
Prerequisite(s): A grade of C or better in NTR* 102.

NTR* 105 - Food Management Systems
3 credits Introduces principles of institutional food service management. Includes fundamentals of menu planning, recipe standardization, purchasing, production, equipment, quality control, marketing, and use of computers in food service.
Prerequisite(s): MAT* 095 or higher.

NTR* 120 - Foods
3 credits Presents and applies basic food preparation, basic food science, cooking equipment, menu planning, developing and testing quality food products.
Prerequisite(s): MAT* 095 or higher. (*HSP* 101 may be substituted for NTR 120 with permission from the Program Coordinator.)*

NTR* 200 - Nutrition Through the Life Cycle
3 credits Covers the stages of the life cycle including the nutritional needs for growth, development and normal functioning of individuals. The stages include preconception, pregnancy, lactation, infancy, toddler, school-age children, adolescent, adulthood and aging adulthood. It includes age-specific conditions and interventions.
Prerequisite(s): BIO* 115, NTR* 102

NTR* 201 - Community Nutrition Education
3 credits Provides a community approach to nutrition education. Students will develop skills in presenting nutrition education programs to small groups or classes.
Prerequisite(s): NTR* 103 and COM* 173.

NTR* 202 - Nutrition Therapy II
3 credits Focuses on the physiological principles and nutritional needs of more complex conditions. Increases medical terminology vocabulary.
Prerequisite(s): A grade of C or better in NTR* 103 , BIO* 115, and CHE* 111. Note: BIO* 115 and CHE* 111 must be taken within 5 years of beginning this course unless waived by the program coordinator.

NTR* 205 - Management in Dietetics

3 credits Focuses on the management principles utilized in nutrition and dietetics including the overview of management; tools for managers; human resources management; managing financial resources and new directions in management.
Prerequisite(s): NTR* 105.

NTR* 210 - Nutrition Internship I

3 credits Offered: Summer
Introduces basic skills and competencies in the delivery of food and nutrition care through classroom theory, clinically supervised practice and simulations/hands-on lab. Students are required to complete 150 hours of supervised practice in food service, clinical and/or community nutrition programs.
Prerequisite(s): NTR* 103, NTR* 120, HSP* 109, BIO* 115, and MAT* 137 or higher. A minimum GPA of 2.8 and a C in all nutrition, science and math courses are also required for this class.

NTR* 212 - Nutrition Internship II

3 credits Offered: Fall
Refines student skills and competencies in the delivery of food and nutrition care through classroom theory, clinically supervised practice and simulations/hands-on lab. Students are required to complete 150 hours of supervised practice in food service, clinical and/or community nutrition programs.
Prerequisite(s): NTR* 210.

NTR* 214 - Nutrition Internship III

CALT: Critical Analysis/Logical Thinking
3 credits Offered: Spring
Refines student skills and competencies in the delivery of food and nutrition care through classroom theory, clinically supervised practice and simulations/hands-on lab with a focus on the development of professional skills. Students are required to complete 150 hours of supervised practice in food service, clinical and/or community nutrition programs.
Prerequisite(s): NTR* 212.

PHILOSOPHY

PHL* 101 - Introduction to Philosophy

CALT: Critical Analysis/Logical Thinking
3 credits Introduces philosophical thinking and life perspectives. Applies philosophical analysis and criticism to moral, social, and religious issues.
Prerequisite(s): Eligibility for ENG* 101.

PHL* 111 - Ethics

CALT: Critical Analysis/Logical Thinking
3 credits Provides an overview of the formation and expression of Western philosophical thinking. Explores some of the views and concepts supporting ethical values in the contemporary social, political, and economic environment. Considers ethical problems as they relate to current ideologies.
Prerequisite(s): ENG 101 or higher.

PHL* 131 - Logic

Critical Analysis/Logical Thinking (CALT)
3 credits An introduction to both formal and informal logic. Topics include: inductive reasoning, informal fallacies, statistical traps, categorical syllogisms, and truth tables for arguments. *Recommended for students who intend to take the LSAT. Lecture Hours: 3
Prerequisite(s): ENG* 101 **Corequisite(s):** ENG* 101

PHL* 201 - Africana Philosophy

CALT

3 credits Course is a modern critical approach to Western philosophy through African-American, African, and Afro-Caribbean philosophy. Explores the question of what it is to be human in the context of denied humanity, the nature of freedom informed by the reality of enslavement and colonization, the legitimacy or freason when logical structures have served to rationalize skewed and unjust representations of reality. Lecture Hours: 3

Prerequisite(s): ENG* 101 and any ANT*, ECN*, HIS*, PHL*, PSY*, SOC* or instructor approval.

PHL* 202 - Africana Philosophy

CALT

3 credits Africana Philosophy, also called African Diasporic Philosophy, is a modern critical approach to Western philosophy through African-American, African, and Afro-Caribbean philosophy. The course explores the question of what it is to be human in the context of denied humanity, the nature of freedom informed by the reality of enslavement and colonization, the legitimacy of reason when logical structures have served to rationalize skewed and unjust representations of reality. Lecture Hours: 3

Prerequisite(s): ENG* 101 and any course in ANT*, ECN*, HIS*, PHL*, PSY*, SOC* or instructor approval.

PHYSICS

PHY* 101 - Physics for Today

SK: Scientific c Knowledge and Understanding

3 credits Emphasizes conceptual understanding of the underlying principles of physics as applied to topics of current interest. Uses arithmetic and simple algebra. Includes classroom demonstrations.

PHY* 109 - Fundamentals of Applied Physics

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Introduces the principles of physics, including measurement, motion, forces in one dimension, concurrent forces, work and energy, simple machines (including mechanical advantage), rotational motion, and nonconcurrent forces. Lecture Hours: 3 Lab Hours: 2

Prerequisite(s): MAT* 115 or higher.

PHY* 111 - Physics for the Life Sciences

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Applies the principles of physics to health science. Basic algebra and trigonometry are used. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): MAT* 115 or MAT* 137 or MAT* 137S or higher or placement in MAT* 142 or higher.

PHY* 121 - General Physics I

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Presents the basic principles of physics using algebra and trigonometry. Studies translational and rotational motion, static equilibrium, work and energy, mechanical vibrations and waves, and the thermal properties of matter. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): MAT* 137 or MAT* 137S or higher or sufficient score on placement test

PHY* 122 - General Physics II

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits A continuation of PHY* 121. Studies electricity, magnetism, light, relativity, and atomic and nuclear physics. Lecture Hours: 3 Lab Hours: 3

Prerequisite(s): PHY* 121.

PHY* 221 - Calculus-Based Physics I

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding

4 credits Presents principles of physics. Uses elementary concepts of calculus. Addresses classical dynamics, rigid-body motion,

harmonic motion, wave motion, acoustics, thermal properties of matter. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): Secondary school physics, MAT* 254.

PHY* 222 - Calculus-Based Physics II

SR: Scientific Reasoning and SK: Scientific Knowledge and Understanding
4 credits Studies thermodynamics, electric and magnetic fields, electromagnetic waves, basic geometrical optics, wave properties of light, and quantum effects; introduces atomic physics, wave mechanics and special relativity. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): PHY* 221 and MAT* 256

POLITICAL SCIENCE

POL* 102 - Introduction to Comparative Politics

3 credits Examines comparative politics as a traditional and significant component of the political science curriculum. Illustrates the diversity and similarity that exist among the world's major foreign powers and the emerging "Third World" nations.

POL* 111 - American Government

SP
3 credits Studies the structure and framework of American government and the interrelationship of politics on the national, state, and local levels. Emphasizes the political, legislative, judicial, and administrative processes of government. Analyzes the basic philosophy of American government and political beliefs. Lecture Hours: 3
Prerequisite(s): ENG* 091 or eligibility for ENG* 101

POL* 208 - American Public Policy

3 credits Investigates the policy-making process in the United States. Using a functional approach, analyzes public policy in a sequential manner, from the initial identification of a problem to its solution, including the assessment and appropriate revision or termination of policy. Examines case studies and analyzes current policy issues.

POL* 250 - Theory of Human Rights

3 credits Offered: (Course has not been offered in two years)
Provides the theoretical grounding, both historical and conceptual, for further studies about the role of human rights in contemporary politics and social life. Explores the historical development and present discussions of the concept of human rights as well as its role in a variety of contemporary issues within domestic and international politics and culture.

POL* 280 - New Haven and The Problem of Change in the American City

3 credits Offered in cooperation with Yale University. Examines the rapid transformation of New Haven and other American cities over the past century as case studies of urban change and urban policy. Themes include the planning and policy implications of the emigration of higher income populations from the inner city.

POL* 295 - Political Science Internship

6 credits Assigns interns to individual legislators to assist in analyzing legislative proposals, monitoring committee and floor action, tracking, drafting news releases and speeches, research, constituent casework, etc. The internship includes orientation sessions, seminars, and written papers.

PSYCHOLOGY

PSY* 104 - Psychology of Adjustment

3 credits Offered: (Course has not been offered in the past two years)
Includes both theoretical and practical learning through the laboratory method of "experience, analysis, and projection." Provides a clear and basic framework for analyzing individual and group behavior. Groups of students define their own terms for existence

and then use these terms to gain further insight and knowledge about themselves, their future roles, and their learning goals. Establishes the need for skill development in human relations and presents foundations for developing those skills.

PSY* 105 - Group Dynamics
3 credits Examines current theories about and research into group process and leadership. Examines students' own performance as group members and leaders. Combines didactic and experiential learning situations.
Prereq/Corequisite(s): PSY* 111 or instructor's permission.

PSY* 111 - General Psychology I
SP: Social Phenomena/Knowledge and Understanding
3 credits Provides the student with a general introduction to fundamental topics and areas in the field of psychology. Students will learn about the history of psychology, various scientific methods for research, neurological underpinnings of behavior and mental processes, and diverse subjects relevant to the field, including sensation and perception, learning, memory, and social psychology.
Prerequisite(s): Eligibility for ENG* 101.

PSY* 112 - General Psychology II
3 credits A survey course that is a continuation of PSY* 111. Topics include health psychology, human development, psychological disorders, states of consciousness and motivation and emotion. This is the second part of a two-semester sequence and it is recommended that students take both semesters (PSY* 111 and 112).
Prerequisite(s): PSY* 111. **Corequisite(s):** ENG* 101.

PSY* 122 - Child Growth and Development
3 credits Covers child development, from birth through adolescence, emphasizing the preschool child. Considers the physical, emotional, mental, and social characteristics of the child at various stages of development. Views life stages in terms of a variety of theoretical frameworks: Freud, Erickson, Piaget, and representative behaviorists. Requires each student to do twenty hours of fieldwork and observation in a preschool or approved alternative setting.
Prerequisite(s): Eligible for ENG* 063 or higher.

PSY* 201 - Life Span Development
3 credits Provides an overview of the physical, cognitive, and psychosocial development of humans from birth to death. There is an emphasis on distinct periods such as the development of fetus; infancy; early, middle and late childhood; adolescence; and the phases of adulthood. It views life stages from a variety of theoretical frameworks; Freud, Erikson, Piaget, Vygotsky, and other representative behaviorists. It also looks at cultural and historical influences on development.

PSY* 209 - Psychology of Aging
3 credits Offered: Spring
Presents aging within a psychological framework. Students will develop an understanding of normal, healthy aging and the emotional problems of the aged. Emphasizes the emotional and behavioral aspects of aging and effective techniques for communicating with the elderly.

PSY* 210 - Death and Dying
3 credits Examines death and dying with regard to the individual, the family, the caretakers, and society at large.

PSY* 233 - Theories, Methods and Practice of Counseling and Therapy
3 credits Offered: Spring
Addresses the basic tenets of existing behavioral, cognitive and humanistic counseling theories. Case studies will be used to address how primary goals, strategies and anticipated outcomes are developed during the therapeutic process of counseling individuals with diagnosed mental health problems.
Prerequisite(s): A grade of C or better in both PSY* 111, PSY* 245.

PSY* 234 - Expressive Methods in Counseling

3 credits Focuses on the therapeutic techniques used in counseling including: the overview of expressive counseling strategies used with child and adolescent populations; visual art techniques; music and movement methods; creative drawing and writing methods. Includes experiential practice with various therapeutic techniques through in-class demonstrations, small group exercises and dyadic role play.
Prerequisite(s): PSY* 111.

PSY* 240 - Social Psychology
3 credits Considers basic principles of human behavior encompassing the social milieu. Focuses on socialization, communication, and intergroup relations as they are influenced by individual personality factors and social structures. Analyzes values and group organization and function in determining methods used in social psychology.

PSY* 245 - Abnormal Psychology
3 credits Surveys a broad range of psychological disorders, their symptoms, etiology, and treatments. An introduction to the historical treatment of persons with mental illnesses provides context to understand current trends. Students will investigate major diagnostic categories including mood disorders, anxiety disorders, psychotic disorders including schizophrenia, personality disorders, and other diagnostic categories.
Prerequisite(s): ENG* 101 and PSY* 111 (both with a C or better).

PSY* 247 - Industrial and Organizational Psychology
3 credits Offered: (Course has not been offered in the past two years)
Applies psychological principles to business and industry. Includes discussion of job evaluation and analysis, management relations, and individual and group relations.

PSY* 257 - Statistics for the Behavioral Sciences
3 credits Provides the foundational understanding in descriptive and inferential statistics necessary to reading research articles and to conducting research in the behavioral sciences. Students will learn about the management and analysis of behavioral sciences data using SPSS. Will cover measures of central tendency and variability, frequency distribution, probability, and hypothesis testing. Particular emphasis will be applied to the computation of t-tests, correlation, ANOVA, and non-parametric measures including chi-square. A statistical or scientific calculator will be required. Course will be held in a computer lab.
Prerequisite(s): ENG* 101, MAT* 137 or higher, PSY* 111 (all with a C or better).

PSY* 258 - Behavior Modification
3 credits Examines and implements basic psychological learning principles. Includes the academic and psychological aspects of learning, including the basic stimulus-response application of behavior modification.

RADIATION THERAPY

RDT* 101 - Introduction to Radiation Therapy I
3 credits Introduces the field of Radiation Therapy. Focuses on quality assurance, basic dosimetry concepts, radiographic anatomy, clinical objectives, and medical and technical terminology. Also includes the fundamentals of radiography, film construction, processing, and x-ray generation. Other topics include professional ethics, patient care procedures, pharmacology, nutrition, and oncology.
Prerequisite(s): Admission to the program and full attendance during freshman orientation. **Corequisite(s):** RDT* 111

RDT* 102 - Radiation Therapy II
3 credits Builds on basic dosimetry skills. Includes dose calculations for external beam, radiation therapy equipment, practical treatment planning, and brachytherapy applications.
Prerequisite(s): RDT* 101 and RST 200. **Corequisite(s):** RDT* 112 and RST* 213.

RDT* 111 - Clinical Practicum I

1 credits Introduces the clinical setting and the basics of radiation therapy. Through supervised direct patient care and phantom work, provides experience in technical and patient care skills. Students must spend two days a week in the affiliate hospital, mastering clinical competency levels one and two.
Prerequisite(s): Admission to the program and full attendance during freshman orientation. **Corequisite(s):** RDT* 101.

RDT* 112 - Clinical Practicum II
1 credits Through supervised direct patient care and phantom work, students master patient care skill levels one and two. Students are evaluated on basic set-up competencies. Students must spend two days a week in the affiliate hospital, mastering technical competency levels one, two, and three.
Prerequisite(s): RDT* 111. **Corequisite(s):** RDT* 102 and RST* 213.

RDT* 113 - Clinical Internship I
1 credits Students attend clinical training Monday through Friday, eight hours per day.
Prerequisite(s): RDT* 111 and RDT* 101.

RDT* 126 - Clinical Internship II
CALT: Critical Analysis/Logical Thinking
3 credits Students attend clinical training Monday through Friday, eight hours per day.
Prerequisite(s): RDT* 112.

RDT* 201 - Radiation Oncology I
3 credits Reviews anatomy and physiology, methods of diagnosis, etiology, epidemiology, staging, aim of radiation therapy, dose, and fractionation principles of specific tumor sites.
Prerequisite(s): BIO* 211 and BIO* 212. **Corequisite(s):** RDT* 202, RDT* 205 and RDT* 211.

RDT* 202 - Radiation Therapy III
3 credits Addresses radiographic and cross-sectional anatomy, simulator techniques, and treatment planning through lectures and laboratory experiments. All setup techniques work in conjunction with diseases covered in Oncology I.
Prerequisite(s): RDT* 102. **Corequisite(s):** RDT* 211, RDT* 201 and RDT* 205.

RDT* 203 - Radiation Oncology II
3 credits Builds on skills learned in RDT* 201. Reviews anatomy and physiology, methods of diagnosis, etiology, epidemiology, staging, aim of radiation therapy, dose, and fractionation principles of specific tumor sites.
Prerequisite(s): RDT* 201. **Corequisite(s):** RDT* 204 and RDT* 212, RDT* 222, RDT* 223, RDT* 224.

RDT* 204 - Radiation Therapy IV
3 credits Builds on skills learned in RDT* 202, focusing on radiographic anatomy, cross-sectional anatomy, simulator techniques, and treatment planning through lectures and laboratory experiments. Addresses all diseases introduced in Oncology II.
Prerequisite(s): RDT* 202 and RDT* 205. **Corequisite(s):** RDT* 203, RDT* 212, RDT* 222, RDT* 223, RDT* 224.

RDT* 205 - Dosimetry and Computer Assisted Treatment Planning
3 credits Introduces computers, principles of operation, and application theory. Emphasizes basic and advanced concepts of clinical dosimetry and treatment planning by computers through laboratory experience. Includes such advanced dosimetry concepts as dose calculations, construction of tissue compensators and custom molds, dose measurement, brachytherapy, sources applicators, implant methods, and dose verification.
Prerequisite(s): RDT* 102, RDT* 112, and PHY* 111. **Corequisite(s):** RDT* 201, RDT* 202 and RDT* 211.

RDT* 211 - Clinical Practicum III
2 credits Through supervised direct patient care and phantom work, the student refines patient care skill levels one and two. Evaluation of mandatory set-up competencies continues. Students must spend three days a week in the affiliate hospital, refining

technical competency levels one, two, and three.
Prerequisite(s): RDT* 112. **Corequisite(s):** RDT* 201, RDT* 202 and RDT* 205.

RDT* 212 - Clinical Practicum IV

2 credits Through supervised direct patient care and phantom work, students must demonstrate proficiency in mandatory clinical objectives and competencies and dosimetry. Students are expected to complete all required set-up competencies.
Prerequisite(s): RDT* 205 and RDT* 211. **Corequisite(s):** RDT* 203, RDT* 204, RDT* 222, RDT* 223 and RDT* 224.

RDT* 218 - Clinical Internship III

1 credits Students attend clinical training Monday through Friday, eight hours per day.
Prerequisite(s): RDT* 211.

RDT* 222 - Radiobiology and Protection

3 credits Introduces biological responses to radiation and factors influencing radiation effects, tissue sensitivity, tissue tolerance, and clinical applications. Also includes a study of radiation protection principles, units of measurement, surveys, methods of protection, brachytherapy, personnel monitoring, and regulatory agencies and regulations.
Prerequisite(s): RDT* 211. **Corequisite(s):** RDT* 203, RDT* 204, RDT* 212, RDT* 223 and RDT* 224.

RDT* 223 - Radiation Physics II

3 credits Builds on skills learned in RST* 213. Emphasizes x-ray production, x-ray properties, gamma rays, electrons, and their respective interactions with matter. Other topics include the measurement of radiation, radioactivity, and particulate radiation. Presents brachytherapy, including radioactive sources, exposure rate, implant dosimetry, and remote afterloading units.
Prerequisite(s): RST* 213. **Corequisite(s):** RDT* 203, RDT* 204, RDT* 212, RDT* 222 and RDT* 224.

RDT* 224 - Radiation Therapy Senior Seminar

2 credits A one semester course characterized by the active role expected of students in the field of research. This will include investigation, preparation, presentation, and discussion of clinical areas. The course requires a working knowledge of radiation therapy. It prepares senior students for successful entry into the field of radiation therapy and improves their critical thinking skills. Theoretical and practical studies are integrated through research and application. Students are also required to define, compare, analyze and assess medical practice in health care delivery.
Prerequisite(s): RDT* 201, RDT* 202, RDT* 211. **Corequisite(s):** RDT* 203, RDT* 204, RDT* 212, RDT* 222, RDT* 223.

RADIOGRAPHY

RAD* 104 - Introduction to Radiography

3 credits Introduces factors influencing radiographic quality and patient protection, basic equipment components and elementary principles of exposure. Through classroom lectures and laboratory study, the student will gain the basic knowledge to function as an entry level student radiographer in the clinical practicum and be able to advance in a progressive manner.
Prerequisite(s): Acceptance into the Radiography Program. **Corequisite(s):** RAD* 105, RAD* 193.

RAD* 105 - Radiographic Anatomy and Procedures I

3 credits Emphasizes task objectives and competencies in general radiographic procedures and related anatomy, medical terminology, film critiquing, and selection of technical factors.
Prerequisite(s): Acceptance into the Radiography Program. **Corequisite(s):** RAD* 104, RAD* 193.

RAD* 116 - Physics in Radiography

3 credits Introduces students to basic radiation physics and its effects on image quality, parameters of radiographic technique and equipment operation and maintenance. The purpose, components and practical application of radiographic imaging systems are presented and discussed. The x-ray circuit, concepts of x-ray production, emission, and interaction with matter will be covered.
Prerequisite(s): MAT* 172, RAD* 104. **Corequisite(s):** RAD* 204.

RAD* 125 - Radiographic Imaging I
3 credits An introduction to the fundamentals of exposure factor selection and imaging parameters, this course will introduce students to the equipment and techniques utilized for radiographic imaging. Material covered includes image receptors, the x-ray tube and circuitry, x-ray production, prime factors, exposure factors, exposure factor selection and technique charts. Supervised laboratory sessions utilizing energized radiographic equipment will reinforce concepts and allow for hands-on learning. Lecture Hours: 3
Corequisite(s): RAD* 105

RAD* 126 - Radiographic Imaging II
2 credits This course builds on the foundation of basic equipment and imaging methods to include specifics of image production and image quality evaluation. Topics covered include image quality factors, beam restriction and filtration, image intensification and fluoroscopy, tomographic principles, and control of scatter radiation. Lecture Hours: 2
Prerequisite(s): RAD* 125 **Corequisite(s):** RAD* 116

RAD* 136 - Radiographic Imaging III
3 credits The principles and use of automatic exposure control devises, image processing, digital image acquisition, display, and archiving will be discussed. Increased emphasis will be placed on the clinical situation, with image evaluation and problem-solving in the clinical environment included in each unit. Lecture Hours: 3
Prerequisite(s): RAD* 126 **Corequisite(s):** RAD* 203

RAD* 187 - Clinical Internship I
0.5 credits First year students attend clinical training Monday through Friday
Prerequisite(s): RAD* 104, RAD* 105, and RAD* 193.

RAD* 188 - Clinical Internship II
4 credits Students attend clinical training Monday through Friday. Students will work on Level II task objectives while mastering Level I objectives. A total of approximately 360 clinical hours will be performed over 12 weeks.
Prerequisite(s): RAD* 116, RAD* 194, and RAD* 204.

RAD* 193 - Clinical Practicum I
2 credits Introduces the clinical setting and general radiographic areas of Diagnostic Imaging through supervised clinical training. Students must spend two days per week in the clinical setting working on Level I training objectives and mastering basic competencies. A total of 180 clinical hours will be performed over 15 weeks.
Prerequisite(s): Acceptance into the Radiography Program. **Corequisite(s):** RAD* 104, RAD* 105.

RAD* 194 - Clinical Practicum II
2 credits Provides the student with the opportunity to master Level I task objectives and competencies. Students must spend two days a week in the clinical setting working on Level I training objectives and mastering basic competencies. A total of approximately 180 clinical hours will be performed over 15 weeks.
Prerequisite(s): RAD* 104, RAD* 105, RAD* 193. **Corequisite(s):** RAD* 204

RAD* 196 - Radiographic Anatomy and Procedures III
3 credits Through classroom lecture and clinical practice, students will learn advanced imaging procedures including contrast studies, age specific considerations and cranial imaging. In addition, students will be responsible for presenting a professional presentation based on research of a specific disease and related case study.
Prerequisite(s): RAD* 187, RAD* 188, and RAD* 204. **Corequisite(s):** RAD* 291.

RAD* 203 - Principles of Radiographic Exposure I
3 credits Focuses on radiographic definition, contrast, and quality. Addresses digital exposure factors, exposure table composition, special exposure techniques, and general radiographic techniques. Lecture Hours: 3 Lab Hours: 3
Prerequisite(s): RAD* 116. **Corequisite(s):** RAD* 196 and RAD* 291.

RAD* 204 - Radiographic Anatomy and Procedures II

3 credits Introduces more complex radiographic procedures, anatomy, equipment, and medical terminology, while refining image critique and patient care skills.
Prerequisite(s): RAD* 105, RAD* 193. **Corequisite(s):** RAD* 194 and RAD* 116.

RAD* 205 - Computers in Medical Imaging: Advanced Practice

3 credits Covers the functionality of computers in medical imaging. Topics include the history of computers and their use in medical imaging, digital imaging, conventional and digital fluoroscopy, the digital image including artifacts and QC, and PACS. The clinical practicum will continue to reinforce this didactic content.
Prerequisite(s): RAD* 196, RAD* 203, and RAD* 291. **Corequisite(s):** RAD* 206, RAD* 218, and RAD* 292.

RAD* 206 - Quality Assurance

CALT: Critical Analysis/Logical Thinking
3 credits Introduces evaluation of the radiographic systems and images to assure consistency in the production of quality imaging. Discusses radiographic quality assurance concepts necessary for identifying diagnostic quality. Presents test and procedures to evaluate these standards through practical application. Review State and Federal regulations.
Prerequisite(s): RAD* 196, RAD* 203, and RAD* 291. **Corequisite(s):** RAD* 205 and RAD* 292.

RAD* 215 - Radiographic Pathology

3 credits Provides an overview of different pathologic conditions that are demonstrated through diagnostic imaging. Lecture material will include the cause and treatment of disease as well as imaging factors and variations relating to the disease.
Prerequisite(s): RAD* 188, RAD* 204. **Corequisite(s):** RAD* 292, RAD* 203.

RAD* 218 - Senior Seminar

3 credits This course is the culmination of all radiographic anatomy and procedures courses in the Radiography Program. The course requires a good working knowledge of Radiography. Through critical thinking exercises, research projects and in class presentations, the course prepares students for successful entry into the field of radiography. More advanced imaging modalities including but not limited to CT, MRI, 3D Imaging, Interventional and Cardiovascular imaging are introduced at this time.
Prerequisite(s): RAD* 196, RAD* 203, and RAD* 291. **Corequisite(s):** RAD* 292.

RAD* 222 - Radiobiology and Protection

3 credits Covers the fundamental principles of radiobiology; molecular and cellular response, both direct and indirect; interaction with matter; protection in radiology; and health physics. Presents sensitivity and cell recovery with the OER, LET, and RBE. Focuses on exposure and dose in radiology, the workplace, and in the general population. Federal, state and local regulations and guidelines will be identified and their roles defined.
Prerequisite(s): RAD* 116, RAD* 203, and RAD* 291. **Corequisite(s):** RAD* 203 and RAD* 291.

RAD* 286 - Clinical Internship III

0.5 credits Students attend clinical training Monday through Friday.
Prerequisite(s): RAD* 196, RAD* 203, and RAD* 291.

RAD* 291 - Clinical Practicum III

3 credits Enables the completion of Level II task objectives and allows the students to continue to refine the skills learned up to this point. More sophisticated imaging procedures and equipment are introduced and performed through supervised training. Students must spend three days per week in the clinical setting working on Level II training objectives. A total of 270 clinical hours will be performed over 15 weeks.
Prerequisite(s): RAD* 188 and RAD* 204. **Corequisite(s):** RAD* 196 and RAD* 203.

RAD* 292 - Clinical Practicum IV

3 credits Focuses on level III task objectives and continues to introduce more sophisticated imaging procedures and equipment use through observation and supervised training. Students must spend three days per week in the clinical setting working on level

III training objectives. A total of 270 clinical hours will be performed over 15 weeks.
Prerequisite(s): RAD* 196 and RAD* 291. **Corequisite(s):** RAD* 205, RAD* 206, RAD* 218.

RADIOLOGIC SCIENCE TECHNOLOGY

RST 200 - Cross Sectional Anatomy
3 credits This course emphasizes the physical relationships of anatomic structures to one another. It develops a three-dimensional understanding of anatomy. Computer-generated sectional images will be used to display the relational anatomy in multiple planes, such as axial (transverse), sagittal, and coronal. It emphasizes the body's natural boundaries and spaces. Bony structures and soft tissue will be investigated. To demonstrate the application of this knowledge, supplemental information on pathology will be included.
Prerequisite(s): BIO* 211 and BIO* 212.

RST* 110 - Introduction to Radiology
3 credits Introduces the field of radiology and develops the necessary skills of a health care professional. Emphasizes radiography, nuclear medicine, and radiation therapy by incorporating lectures with field site visits. Addresses the role of an allied health professional in the hospital and community setting. Explores career potentials and alternatives. Includes clinical site visits.

RST* 213 - Radiation Physics
3 credits Introduces the concept of radiation, its sources, and its interaction with matter. Introduces electricity and magnetism, the x-ray machine, circuits, components, and practical application.
Prerequisite(s): RAD* 104 or RDT* 101, RDT* 111, and PHY* 111, MAT* 115. **Corequisite(s):** RAD* 204 or RDT* 102.

RST* 217 - Clinical Pathology
3 credits Investigates the various aspects of human disease. Covers diseases pertinent to radiology. Topics include general concepts of disease; inflammation and repair; neoplasms; and diseases of the immune, cardiovascular, respiratory, digestive, urinary, endocrine, musculoskeletal, reproductive, and nervous systems. A brief review of anatomy and physiology precedes lectures on specific pathological processes. Also presents the medical terminology of pathology.
Prerequisite(s): BIO* 211 and BIO* 212.

RST* 250 - Methods of Teaching in a Clinical Setting
3 credits Intended for clinical instructors/supervisors in secondary and post secondary allied health occupational programs. Presents the skills needed to teach, supervise, and evaluate students/trainees in the clinical setting. Focuses on the role of clinical instructors/supervisors, developing measurable objectives, assessing learning styles, and using appropriate evaluation instruments. Upon completion of this course, participants will be granted a certificate of attendance and can apply for CEUs to their respective accrediting agencies.
Prerequisite(s): Program director's permission.

RAILROAD ENGINEERING TECHNOLOGY

RET* 101 - History of Railroading
3 credits Covers the history and traditions of railroading and the industry's role in the North American economic development.
Corequisite(s): ENG 043/073 or placement into ENG* 063 or higher.

RET* 110 - Careers in the Railroad
2 credits Provides information about technical careers in railroading to assist students to choose suitable career paths. Requires field trips that will demonstrate the relationships among technical work groups in day to day railroad operations.
Prereq/Corequisite(s): RET* 101.

RET* 120 - Railroad Rules, Regulations, Standards & Practices
3 credits Provides participants with an overall understanding of governmental rules, regulations, standards, and practices as they apply to a railroad operation. Study includes a review of Code of Federal Regulations, Part 49, Railroad Standards and Practices Manual (AREMA) and various railroads' book of rules.
Prereq/Corequisite(s): RET* 101.

RET* 220 - Safety in the Railroad Workplace
3 credits Covers the principles and policies governing railroad safe work practices. Upon successful completion of this course, the student should be able to describe safety policies, including the application of team processes, use and care of personal protective equipment, lockout/tag out procedures, and hearing conservations.
Prerequisite(s): RET* 120.

RET* 230 - Reading and Interpreting Railroad Diagrams
2 credits Provides participants with an overall understanding of how to read and interpret railroad electrical diagrams. Course topics will include a review and discussion of the following: ladder diagrams, contractors, motor starters, motors, programmable logic controller, railroad electrical symbols.
Prereq/Corequisite(s): EET* 110.

RET* 240 - Railroad Pneumatics and Hydraulic Controls
4 credits Introduces participants to the basic components, controls and functions of railroad pneumatics and hydraulics. Course topics include standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures and switching and control devices. Lecture Hours: 3 Lab Hours: 2
Prereq/Corequisite(s): MEC* 234.

RET* 242 - Railroad HVAC Systems
4 credits Provides participants with an overview of HVAC systems used on railcars. Basic hand and specialty tools and equipment will be covered as well as basic laws of heat transfer, thermo-dynamics and heat load. The study of the basic refrigeration cycle and its components will be introduced. In addition, students can qualify to obtain certification on the proper handling of refrigerants to include their effects on the environment. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MEC* 234.

RET* 244 - Railroad Electro-mechanical Troubleshooting
4 credits Introduces participants to the tools, methods and techniques for troubleshooting electro-mechanical problems in machines and rolling stock equipment (trains). Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MEC* 234.

RET* 250 - Railroad Signaling & Switching
4 credits Provides participants a basic understanding of a railroad signal system, including track circuits and applicable federal laws/guidelines. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): EET* 110 and RET* 120.

RET* 252 - Railroad Communications
4 credits Introduces participants to a basic understanding of railroad communications. Course topics include frequency and pulse modulation, AM and FM transmitters and receivers, electromagnetic radiation, digital data communication, and applicable laws and regulations. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): RET* 250.

RET* 254 - Railroad Maintenance, Troubleshooting and Repair
4 credits Introduces students to the tools, methods and techniques for troubleshooting signal and communication problems in switch machines and communication equipment. Lecture Hours: 3 Lab Hours: 2
Prerequisite(s): MEC* 234.

RET* 270 - Practicum in Passenger Railroad Technology
1 credits Provides students with experience in electric traction motors, catenary wire systems, signaling and track repair using APTA (American Public Transportation Association) standards. Students will complete at least 50 hours of supervised practicum.
Prerequisite(s): RET* 220.

RET* 271 - Practicum in Passenger Railroad Technology
1 credits Provides students with experience in diesel-electric engines, freight railroading logistics and intermodal services, signaling upgrades and track renewal using laser-guided tamping equipment all in accordance with Northeast Operating Rules Advisory Committee (NORAC) standards. Students will also regularly inspect and help with ongoing maintenance of the rail line.
Prerequisite(s): RET* 220.

SCIENCE

SCI* 102 - Perspectives in Natural Science
3 credits Offered: (Course has not been offered in two years)
Surveys physics, chemistry, astronomy, and biology. Intended for students with a limited science background. Credit does not count toward meeting degree requirements.

SIGN LANGUAGE

SGN* 101 - Sign Language I
3 credits An introduction to American Sign Language, the language used by the Deaf Community in the United States. Covers the fundamental structure of ASL grammar, introduces basic information about the deaf community and deaf culture. This is the first course in a four-course sequence that satisfies the foreign language requirement of the associate in arts degree.

SGN* 102 - Sign Language II
3 credits Offered: Spring
Builds on skills learned in American Sign Language I. Reinforces the fundamentals of ASL grammar and presents more information about the deaf community and deaf culture.
Prerequisite(s): SGN* 101.

SOCIOLOGY

SOC* 101 - Principles of Sociology
SP: Social Phenomena/Knowledge and Understanding
3 credits Introduces the philosophy, methods, and problems of sociology. Emphasizes culture, society, and how social arrangements infringe upon personality and group behavior.
Prerequisite(s): Eligibility for ENG* 101.

SOC* 106 - Technology and Society
3 credits Focuses on the role of various art forms (e.g., painting, sculpture, and architecture) in pre-industrial and post-industrial societies. Develops students' visual, verbal, and cultural literacy.

SOC* 109 - Society of Women
3 credits Analyzes the socialization of women into the female sex role. Examines the traditionally female roles in marriage and the family. Explores economic and political roles women have played in American society during the colonial and frontier

periods, slavery, the abolitionist movements, the trade union movement, and the women's rights and suffrage movements. Concludes with a study of current women's groups and their different ideologies, concerns, and platforms for change.

SOC* 111 - Child, Family, School and Community

3 credits An in-depth look at the child, family, and the relationship between the function of school, community, and the family. Will review the socialization process and the development of the child as a social being. An understanding of the young child and age-appropriate guidance for the young child will be examined. This course will address the role culture, diversity, and theory partner with families and community. An understanding of how to effectively communicate with families will also be explored. An understanding of how society and education partner in the socialization process for children from birth to age eight.

SOC* 114 - Sociology of Aging

3 credits Offered: Fall

Studies aging people and the world around them. Examines elderly peoples' social lives, societal roles, personal adjustments, dependence, independence, and how society responds to their needs. A field project may be assigned in which students participate in a community activity involving the elderly.

SOC* 115 - Nutrition and Aging

3 credits Offered: (Course has not been offered in the past two years)

Explores the nutritional needs and special problems during various stages of the life cycle from infancy to old age. Includes presentations by professionals and others involved in the preparation and planning of nutritional programs; major emphasis is placed on the nutritional needs of the elderly and counseling techniques appropriate to elderly people.

SOC* 131 - Social and Environmental Issues

3 credits Introduces the philosophy, methods, and problems of environmental sociology. Emphasizes sustainability, the affects of social arrangements on humanity's interaction with the environment, population control, endangered species, and ethics.

SOC* 176 - Methods of Social Research and Change

3 credits Introduces change-agent skills and the skills needed for conducting elementary research projects. Students must design and execute a change project and carry out a number of field projects. Develops data gathering skills, skills in designing data gathering tools, and methods of strategy evaluation.

SOC* 201 - Contemporary Social Issues

3 credits Presents a detailed analysis of major social problems in American society. Problems including population, ecology, poverty, race and ethnic relations, urbanization, the role of the media, criminal activity, aging, health, and housing will be evaluated. Emphasis is on American society but some international issues and situations will be examined. Community awareness and involvement will be stressed as students evaluate local issues as well.

SOC* 210 - Sociology of the Family

3 credits Presents a sociological evaluation of modern marriages and family life. Topics include preparation for marriage, dating, courtship, marriage-career analysis, married life, parent-child relations, and sexual adjustments.

SOC* 220 - Racial & Ethnic Diversity

3 credits A study of the history and culture of various racial and ethnic groups in the United States including an investigation into institutionalized racism, prejudice, discrimination, and other issues of diversity related to power and privilege.

SOC* 224 - Caribbean Culture and Society

3 credits Presents an overview of the economic systems, history, and social-cultural dimensions of the countries of the Caribbean Basin, focusing on the island-nations of the Greater Antilles (Cuba, Dominican Republic, Haiti, Jamaica, and Puerto Rico). Also examines the ever-evolving relationship between the United States and the Caribbean, including issues of migration.

SOC* 230 - The City

3 credits Offered: (Course has not been offered in two years)

Analyzes social stratification in large urban centers, emphasizing sociological, economic, and racial differences. Considers the role of conflict as it affects group relations. Examines social disorder and the law, the problems of life in the ghetto, the role of power, racial ideology, and social changes. Considers the future of large cities and population movements.

SURGICAL TECHNOLOGY

SUR* 211 - Clinical Surgical Experience I
6 credits Offered: Fall Only

Provides students the opportunity to build on didactic and clinical skills learned in the classroom as a member of the surgical team under direct supervision. Focuses on moderately complex specialty surgical procedures and takes place in a clinical facility. This course is 24 hours per week over 15 weeks.
Prerequisite(s): CSA* 105, ENG* 101, HIM* 101, and MAT* 109 all with a grade of C or higher. BIO* 115, SUR* 109, SUR* 110, and SUR* 111 with a grade of C+ or higher; ENG* 102 or ENG* 202. **Corequisite(s):** SUR* 213, SUR* 215, PSY* 111

SUR* 212 - Clinical Surgical Experience II
6 credits Offered: Spring Only

Provides students the opportunity to build on didactic and clinical skills learned in the classroom as a member of the surgical team under direct supervision. Focuses on moderately complete to complex and specialty surgical procedures that take place in a clinical facility. This course is 24 hours per week over 10 weeks. The last five weeks of the course prepares the students for the certification exam. Students sit for the certification exam at the end of the course.
Prerequisite(s): CSA* 105, ENG* 101, HIM* 101, MAT* 109 all with a grade of C or higher; BIO* 115, SUR* 109, SUR* 110, SUR* 111, SUR* 211, SUR* 213 all with a grade of C+ or higher; and ENG* 102 or ENG* 202, PSY* 111 **Corequisite(s):** SUR* 214, SUR* 250 and Aesthetic Dimensions

SUR* 213 - Surgical Procedures I
3 credits Includes a review of relevant anatomy and pathophysiology, diagnostic procedures, and surgical interventions for surgical procedures in the following areas: obstetrical/gynecological surgery, urological surgery, minor/major orthopaedic surgery, ear, nose, and throat surgery, oral, maxillary, facial surgeries, reconstructive plastic surgery, and burn surgery. Laparosopic, robotic, pediatric, simulation, and endoscopic procedures are integrated into this course. Lecture Hours: 3
Prerequisite(s): ENG* 101, CSA* 105, MAT* 109, HIM* 101 all with a C or higher; BIO* 115, SUR* 109, SUR* 110 SUR* 111 all with a grade of C+ or better and ENG* 102 or ENG* 202, any course in Social Phenomena and Understanding.
Corequisite(s): SUR* 211, SUR* 215 **Prereq/Corequisite(s):** PSY* 111

SUR* 214 - Surgical Procedures II
3 credits Includes a review of relevant anatomy and pathophysiology, diagnostic procedures, and surgical interventions for surgical procedures in the following areas: neurological surgery, ophthalmology surgery, peripheral vascular surgery, thoracic surgery, cardiac surgery, emergency trauma surgery, and donor/procurement surgery. Laparoscopic, navigation, robotic, simulation, and endoscopic procedures are integrated into this course. Lecture Hours: 3
Prerequisite(s): ENG* 101, CSA* 105, MAT* 109, HIM* 101 all with a grade of C or higher, BIO* 115, SUR* 109, SUR* 110, SUR* 111, SUR* 211, SUR* 213 all with a grade of C+ or higher, and ENG* 102 or ENG* 202, PSY* 111 **Corequisite(s):** SUR* 212, SUR* 250 and any course in Aesthetic Dimensions

SUR* 215 - Surgical Technology Pharmacology
3 credits Prepares the students for the safe care and handling of medicationhs and solutions used during surgery. Students are provided with an introduction to pharmacology, principles of anesthesia administration and medications that are commonly used in the surgical environment. Lecture Hours: 3
Prerequisite(s): ENG* 101, CSA* 105, MAT* 109, HIM* 101 all with a C or higher; BIO* 115, SUR* 109, SUR* 110, SUR* 111 all with a grade of C+ or higher, ENG* 102 or ENG* 202, and any course in Social Phenomena & Understanding.
Corequisite(s): SUR* 211, SUR* 213 , PSY* 111

SUR* 250 - Advanced Seminar for Surgical Technologist

3 credits Includes effective career-seeking skills, interviewing techniques, resume preparation, role of the circulating surgical technologist, professional membership, and certification. Advanced skills such as vital sign monitoring, urinary catherterization, and surgical skin preparation are also introduced. A review of legal, ethical, and risk management is included. This course reviews the objectives of the National Certification Examination for Surgical Technologist. Will prepare students to pass the certification of surgical technologists that is often required for employment as a surgical technolgist. During this course, students register for membership in AST and apply to take the certification exam. Lecture Hours: 3
Prerequisite(s): CSA* 105, ENG* 101, HIM* 101, MAT* 109 all with a grade of C or higher; BIO* 115, SUR* 109, SUR* 110, SUR* 111, SUR* 211, SUR* 213 and SUR* 215 with a grade of C+ or higher and ENG* 102 or ENG* 202, PSY* 111 **Corequisite(s):** SUR* 212, SUR* 214, and an Aesthetic Dimension elective.

WATER MANAGEMENT TECHNOLOGY

ENV* 110 - Environmental Regulations

3 credits Presents a broad view of federal, state, and municipal environmental regulations as they apply to industry, commercial establishments, local governmental facilities, and the individual citizen. Reviews elementary chemistry. Provides a practical approach to regulatory understanding to plan an effective and economically sound compliance program. Course topics also include the Clean Air Act (CAA); the Clean Water Act (CWA); the Water Toxins Program; the Resource Conservation and Recovery Act (RCRA); the Toxic Substance Control Act (TSCA); SARA Title III (Community Right-to-Know); and federal, state, and local regulations covering such topics as hazardous material transportation, in-ground tank storage, and such specific hazardous materials as asbestos and PCBs.

WMT* 101 - Water Treatment and Distribution

6 credits Covers water sources and uses, storage, pipes, pumps, motors, water quality parameters and standards, and treatment techniques, including iron and manganese removal, pretreatment, coagulation/flocculation, sedimentation, filtration, fluoridation, corrosion control, disinfection, sludge handling, and plant maintenance. Presents the mathematics necessary for operators of water treatment and distribution plants.

WMT* 102 - Special Topics in Water Treatment

3 credits Covers required and recommended drinking water standards; proper sample collection; preservation and storage techniques; proper physical, chemical, and microbiological analytical techniques; and the relationship between analyses, unit process control, and the quality of treated water in the distribution system.

WMT* 103 - Special Topics in Water Distribution

3 credits Covers applied hydraulics; water tanks; mains; valves; services; hydrants and meters; cross connections; pumps; instrumentation; maps and drawings; and local, state, and national laws. Devotes special attention to operational and maintenance procedures designed to protect the quality of water in the system

WMT* 105 - Water Utility Management

3 credits Introduces areas of Water Utility Management, including organization, planning, regulations, finances, operations, infrastructure maintenance, safety, and public relations. Considers contemporary technological developments, management problems, and challenges that public water utilities must cope with.

PERSONNEL

Faculty – Full-Time

Julie Austin (2000) R.T. (R) (M) Professor, Program Coordinator Radiography. M.A., B.S., Albertus Magnus College; A.S., Gateway Community Technical College

Catherine Babbitt (2015) Associate Professor, Developmental English, Coordinator, General Studies, M.S., Southern CT State University; B.S., Charter Oak State College; A.S., Gateway Community College

Allan Ballinger (2018) Instructor, History & Political Science. D.M.A. University of Connecticut, M.A. Central Connecticut State University, B.A. University of the State of New York (Excelsior College)

Claudia Bedoya-Rose (2000) Professor English as a Second Language and Spanish. Ed.M., Harvard Graduate School of Education; B.S., Albertus Magnus College; A.S., Albertus Magnus College

Alex Boateng (2004) Associate Professor and Academic Coordinator, English. M.A. Yale University; B.A. University of Ghana

Michelle Breaker (2010) Professor Developmental Mathematics, Department Chair, First Year Studies. M.S., B.S., Purdue University

Mark S. Bruno (1994) Professor General Science. M.S., University of Connecticut; B.S., Southern Connecticut State University

James Brunt (2010) Professor English. M.A., B.A., Southern Connecticut State University

Veronica Cardinale (2010) Associate Professor Radiation Therapy Technology, Clinical Coordinator. B.S. Albertus Magnus College; A.S. South Central Community College

Cara Case (2013) Associate Professor DMS, Program Coordinator. M.Ed. Post University, B.S. University of Hartford; A.S., Middlesex Community College; RDMS, RDCS

Susan Chenard (2006) Professor English and Department Chair Humanities. M.A. Mills College; B.A. Central Connecticut State University

Christine Cherry (2020) Assistant Professor, Program Coordinatorm Computer Engineering Technology M.S., Environmental Studies, B.S. Earth and Space Science, Southern Connecticut State University

Jonah Cohen (2004) Professor Sociology, Department Chair Social Science. M.S., Central Connecticut State University; B.A., Trinity College

Robert Costanzo (1994) Professor Automotive Technology. B.S., Central Connecticut State University

Teresa Cull (2018) Instructor, Developmental Mathematics. M.S., B.S., Central Connecticut State University

Tara Daly (2017) Assistant Professor, Nursing. MSN Sacred Heart University

Susan DeBarge (2008) Associate Professor Nursing. M.S. Nursing-Midwifery, Yale University; B.S., Nursing, UMASS, Boston

Todd Degree (2007) Professor Business. MBA Georgia State University; B.S., Sports, UMASS Amherst

Megan DeLivron (2010) Professor Chemistry. Ph.D., Biochemistry, University of Connecticut; B.S., Biochemistry, University of New England

Lauren Doninger (2001), Professor of Psychology, Coordinator, Liberal Arts & Sciences, Ed.D. Johnson & Wales University; M.A., Central Connecticut State University; B.S. College; LADC, LPC

Andrea Eckels (2020) Assistant Professor Nursing. M.S. Nursing Education, Benedictine University, BSN Southern Connecticut State University

Thomas M. Fahy (2004) Professor Psychology. Psy.D. University of Hartford; M.A., B.A. Tufts University

Gina Finn (1999) Professor Radiation Therapy, Program Coordinator, M.A. Albertus Magnus College; B.S. Central Michigan University; A.S., Gateway Community College; R.T. (T)

Laura Firmani (2018) Instructor Biology. Ph.D. Biomedical Science, University of Connecticut, B.S. Biology, University of St. Joseph

Eric Flynn (2010) Instructor Electrical Engineering Technology, Acting Department Chair. Ph.D., Electrical Engineering, University of Connecticut; M.S., B.S., University of Connecticut; A.S., Gateway Community College

Stephen Fries (1986) Professor Marketing, Program Coordinator Hospitality Management. M.S., University of Massachusetts Amherst; B.S., State University of New York at Albany

Germaine C. Frosolone (2001) Professor and Program Coordinator, Communications. M.S. Walden University, B.A., Western Connecticut State University; A.S., South Central Community College; C.N.M.T., R.T.N.

Daniel Fuller (2011) Professor and Department Chair, Automotive. B.S. Excelsior College; A.A.S., Greater New Haven State Technical College

Howard Fuller (2020) Instructor, Automotive. Certificate Vocational Technical Institute; Central Connecticut State University

Riold Furtuna (2021) Instructor, Microbiology. M.B.A. ESMT European School of Management and Technology; M.S. Michigan State University; B.S. University of Florence, Italy

Renee A. Gaines (2008) Associate Professor English. Ed.M. SUNY Buffalo; B.A. Brooklyn College

Beata Gebuza (2008) Professor Mathematics. M.S. Southern CT State University; B.S. Quinnipiac University; A.S. Gateway Community College

Christopher Gentile (2020) Assistant Professor and Program Coordinator, Culinary Arts. MBA University of New Haven

Claudia Haekel (2004) Professor Nursing. M.S. University of Connecticut; B.S. Southern Connecticut State University

Jacob Jackson (2020) Assistant Professor and Program Coordinator, Mechanical/Manufacturing Engineering Technology. M.S. Fairfield University, B.S. Pennsylvania State University, Licensed Professional Engineer (P.E.) State of CT, WA, and NH

Marilyn Jacobi (1994) Professor Mathematics. M.S., University of Bridgeport; B.A., SUNY College at Oneonta.

Ann Marie Jones (2017) Assistant Professor and Program Coordinator Nuclear Medicine Technology, HCM M.S., B.A. Albertus Magnus College, A.A. Gateway Community College, CNMT, R.T.

Elizabeth H. Keefe (2012) Associate Professor and Academic Coordinator Developmental English. M.S./TESOL Certification, Southern Connecticut State University; M.A., Fairfield University; B.A., College of the Holy Cross

Sandra M. Kraus (2018) Instructor and Interim Program Coordinator, Business Office Technology, B.A. Fairfield University, MBA University of New Haven

Leonardo Kurachi Ube (2018) Instructor Anatomy & Physiology. M.D. University of Buenos Aires School of Medicine (Argentina), B.S. Health Studies, Charter Oak State College

Lorraine Li (2004) Professor Economics. M.S. Columbia University; B.A. Columbia University

Elaine Lickteig (2010) Professor, Nutrition and Dietetics, Clinical Coordinator, M.S., University of Connecticut; B.A. Michigan State University; M.S., R.D.N.

Michael Loteczka (1984) Professor Chemistry/Math/Physics. M.S., B.S., University of Connecticut

Rose Bednarz Luglio (1992) Professor Business and Program Coordinator Entrepreneurial Studies, Retail Management/Fashion Merchandising. M.B.A., C.A.G.S., University of Bridgeport; M.A., B.S., University of Connecticut

Mark D. Lynch (1998) Professor Chemistry. Ph.D., Iowa State University; M.S., Southeastern Massachusetts University; B.S., Boston College

Allyn Manning (2020) Instructor, Automotive Technology. A.S. Naugatuck Valley Community College

Caitlyn Moonesar (2020) Assistant Professor and Program Coordinator, Exercise Science and Wellness. M.S. City University NY Brooklyn College; B.S., B.B.A. University of Massachusetts

Eric W. Maroney (2018) Instructor English. M.F.A. Sarah Lawrence College, B.A. Southern Connecticut State University

Joseph Maynard (2000) Associate Professor History. M.A., Trinity College; B.A., Southern Connecticut State University; A.S., South Central Community College

Robert McDonald (2022) Instructor of Mathematics. Ph.D., M.S. Mathematics, University of Connecticut

Scott McFarland (2008) Professor and Program Coordinator Automotive Technology. B.A., University of Massachusetts

Jessica Shoneck McLawhon (2016) Instructor Early Childhood Education. M.A., East Carolina University; B.S., East Carolina University

Eric Meyers (2007) Professor of Biology and contact for BIO 105, 121, 122; D.C., University of Bridgeport; B.A., University of Steubenville

Victoria Morse (2004) Professor Foreign Languages. M.A., Middlebury Graduate School of French; B.A., Vassar College

Kathleen H. Murphy (1996) Professor Business. M.S., B.S., University of New Haven; A.S., South Central Community College; A.R.R.T. (N), C.N.M.T.

Lauren O'Leary (2016) Assistant Professor, English and ESL. M.F.A., University of Nebraska; M.A., Wesleyan University; B.A., Quinnipiac University; TESOL Certification, University of California, San Diego

Sam Osei (2017) Associate Professor, Nursing. M.S. University of Hartford

Lynette Palm (2012) Assistant Professor Nursing. M.S.N., B.S.N., Rand Afrikaans University

Kititakone Panasy (2020) Assistant Professor and Program Coordinator, Manufacturing Engineering Technology. M.S. Fairfield University, Albertus Magnus College, B.S. Central Connecticut State University, A.S. Gateway Community College, Quinebaug Valley CC, Three Rivers CC, Daniel Webster College

Myra Randall (2008) Assistant Professor Nursing. M.S.N., University of Hartford; B.S.N., Southern Connecticut State University

Andrew V. Randi (1997) Professor Culinary Arts. M.S., B.S., University of New Haven; A.S., Johnson & Wales College

Keira Robilotto (2019) Instructor, Developmental English. M.S.Ed., B.A. CUNY Queens College

Rose-Mary Rodrigues (2019) Instructor, Developmental English. M.A., B.A. Fairfield University

Lynn Roller (2008) Professor Allied Health, Coordinator, Distance Learning. M.Ed. West Texas A&M University; B.S., Charter Oak State College; St. Vincent's Medical Center; Certificate, Ultrasonography, Radiologic Technology

Eileen Russo (2010) Professor and Program Coordinator, DARC., M.A., St. Joseph College, Advanced Alcohol/Drug Counselor (AADC), Licensed Addiction Counselor (LADC)

Teresa Russo (1992) Professor Psychology. M.S., Southern Connecticut State University; B.A., University of Connecticut; Licensed Professional Counselor (L.P.C.)

Shannon Sanford (2020) Assistant Professor Nursing. Post Masters Certificate, SCSU, M.S. Yale School of Nursing, B.S. SCSU

Rachael Schettenhelm (2004) Professor Developmental Mathematics. M.S., The University of Toledo; B.S., Michigan State University, A.S. Housatonic Conmmunity College

John H. Scott, III, Esq., (1998) Professor Business. J.D., Hofstra University School of Law; M.Div., Harvard University School of Divinity; B.A., SUNY at Stony Brook; A.A., Suffolk County Community College

Colena Sesanker (2017) Assistant Professor, Philosophy. Ph.D. University of Connecticut

Basheer Shabazz-Williams (2019) Instructor Computer Science, M.S. Polytechnic University, B.S. A.S., CUNY at Medgar Evers College**Tinkang Shen** (2006) Professor Mathematics. M.S., M.A., Ball State University; B.S. Shanghai University

Kim Shea (1994) Associate Professor Human Services, Program Coordinator. M.S.W., B.S.W., Southern Connecticut State University

Matthew P. Gardner-Spencer (2021) Instructor, Microbiology. M.S., Brown University; B.A. Williams College

Susan Spencer (2010) Professor Mathematics, Program Coordinator. M.S., B.S., Southern Connecticut State University

Amanda Sweeney (2012) Professor Developmental Mathematics. M.S., B.S., University of Connecticut

Bienvenido R. Tabuzo, Jr. (2019) Assistant Professor Nursing. MSN St. Joseph's College of Maine; BSN Our Lady of Fatima University

Richard Thayer (2016) Assistant Professor Radiology. M.Ed., Southern CT ST University; B.A., Albertus Magnus; A.S., Gateway Community College

Carmelita Valencia-Daye (2004) Professor Early Childhood Education, Program Coordinator. M.Ed. University of North Carolina, Chapel Hill; B.S. University of Philippines

Sheri Valentin (2010) Professor and Department Chair, Business. M.S., University of New Haven; B.S., Sacred Heart University

Tammy Vaz (2021) Assistant Professor, Program Coordinator, Art. M.F.A. Massachusetts College of Art & Design; B.A. Salve Regina University

Giuseppe Vertucci (2019) Assistant Professor, Program Coordinator, Honda PACT Program. A.S. Gateway Community College

Kristina Veselak (2018) Instructor Sociology and Criminal Justice. Ph.D. Stony Brook University; M.S. Brooklyn College, M.Sc. Oxford University, B.A. Sacred Heart University

Jaye Viola (2007) Professor Radiography. B.A., Albertus Magnus College; A.S., Gateway Community College; R.T. (R)

Kathleen Wagner (2020) Assistant Professor Nursing, MSN, BSN Sacred Heart University; ASN Capital Community College

Stacy Walker (2012) Associate Professor and Program Coordinator, Computer Science. M.S., Colorado Technical University; M.S., B.S, Quinnipiac University; A.S., Gateway Community College

Anne Williams (2007) Professor Economics. PHD, Business Administration, Walden University; M.B.A. Temple University; B.A., University of Connecticut C.P.C.U., C.E.B.S.

Wesley Winterbottom, (1994) P.E. Professor of Science and Program Coordinator Public Utility Management. M.B.A., University of Connecticut; M.S., Cornell University; B.S., Lehigh University

Faculty – Part-Time

Lawrence Baldino, M.S., M.B.A., Southern Connecticut State University and University of New Haven

Patricia Bissell, M.Music 6th yr, Yale School of Music

Ronald Blevins, M.A., Fairfield University

Lisa Breuninger-Tenny, Ph.D., Drexel University, PA, Graduate Medical Science

Diane Calello, M.S., Quinnipiac University

Vincent Carrano, M.S., 6th yr; Southern Connecticut State University

Toni D. Cates, M.A., Wesleyan University, Fairfield University

Patricia Colandrea, M.B.A., Housatonic Community College, Fairfield University, University of New Haven

Victor Collazo, M.D., University of Puerto Rico

Daniel Corr, M.M., Cornish College, Yale University

Daniel J. Courcey, Jr. A.B., Providence College; M.A., Southern Connecticut State University; C.A.G.S., Fairfield University

Amy Davison, M.A., Central Connecticut State University, University of Connecticut

Michelle DellaCamera, M.S., Certificate, Albertus Magnus College, Southern Connecticut State University

Corinne Fisher, M.B.A., C.P.C.

Susan Foss, M.S., 6th yr; Southern Connecticut State University

Vincent Ginnetti, M.S., Southern Connecticut State University

Twanda Grey, M.S.W.; Southern Connecticut State University

Catherine Hall, M.A., Southern Connecticut State University, University of New Haven

Lawrence D. Hally, M.S., Southern Connecticut State University

Stanley Kapinos, M.A., Fairfield University, Southern Connecticut State University

Susan Landino, B.S., M.S., Southern Connecticut State University

Elizabeth McCormack, B.A., M.A., Southern Connecticut State University, University of Connecticut

Robert Mitchell, M.A.L.S.; Wesleyan University

Robert Novotny, B.A., M.A., Sacred Heart University, Western Connecticut State University

Angel Pickett (2020). Interim Assistant Professor, Program Coordinator, Surgical Technology. B.A. Sacred Heart University

Barbara Puglisi, M.A.; Southern Connecticut State University

Thomas Ragozzino, B.S.,M.A., Fairfield University, Trinity College

Susan Reinhart, B.A., M.F.A., Vassar College, Tyler School of Art

Virginia Robey, B.A., University of Hawaii, M.S., Southern Connecticut State University

Joan Ryan, M.A., Southern Connecticut State University

Anthony Solli, B.S., M.S., University of Notre Dame, Quinnipiac College, Southern Connecticut State University, Fairfield University, Yale University

Todd Solli, M.S., Quinnipiac University

Joseph A. Spadaro, B.S., M.S., Trinity College, University of New Haven

Jean Tencza, B.A., M.S., Southern Connecticut State University, University of New Haven

Susan Traudt, B.S., M.S., University of New Haven, Quinnipiac University

Paul Turtola, M.S., with certification; Southern Connecticut State University

Susan Weldon, B.S., MRP, University of Massachusetts, University of Vermont

Narinder Whitehead, B.S., MPH, Southern Connecticut State University, Nairobi University

Brendan Williams, B.A., University of Connecticut, MBA Rensselaer Polytechnic Institute

Pamela Worthy, M.A.L.S. Wesleyan University; B.A. Williams College

Administration

♦ President's Office

                    (2017) President
Nicholas D'Agostino (2020) Manager of Affirmative Action, Diversity and Inclusion. M.S. Central Connecticuut State University; B.A. Quinnipiac University
Tanya Gibbs (2018) Administrative Assisant. B.A. Howard University

❖ Human Resources
Vacant - Director
Christie Higney (1997) Human Resources Associate. B.S., Quinnipiac College
Patricia Boyne (2010) Fiscal Administrative Officer. A.S., Gateway Community College
Elizabeth Federico (2020) Human Resources Assistant
❖ Development and Community Partnerships

Mary Ellen Cody (2008) Dean. B.A., George Washington University
Genavave DeSisto (2020) Assistant to the Dean of Development and Community Partnerships, B.S. Albertus Magnus, A.S. Gateway Community College
Andrea Macnow (2019) Grant Development Specialist. M.P.A. Indiana University, B.A. Keene State College
❖ Marketing and Public Relations

Evelyn Gard (2001) Associate Dean, (Interim), Communications/Marketing, M.A.Ed, Loyola Marymount University; B.A., Mount St. Mary's College

Christina Scillia-Rivera (2004) Secretary II. A.S., Gateway Community College
Allen Gales (1979) Public Relations Associate. B.S., Charter Oak State College; A.S., South Central Community College
Amie Fanning (2012) Public Relations Associate. B.A., Southern Connecticut State University
Mari Walker (1983) Office Assistant. B.A., Charter Oak State College; A.S., South Central Community College
Iman Abdulrahman* (2016) Webmaster. A.S. Gateway Community College
Mark Podlas (2020) Marketing Associate. B.A. University of Dayton
♦ **Campus Operations**

Vacant - Associate Dean
Batreece Jett (2020) Administrative Assistant, A.S. Valencia College
❖ **Business Office**

Jill McDowell (2002) Director of Finance and Administrative Services. M.B.A., University of Connecticut; B.S., University of Connecticut
Lutishia Pershad (2020) Associate Director of Finance and Administrative Services. MBA Central Connecticut State University; B.S. University of Hartford
Kim Diaz (2009) Accountant. B.S., Albertus Magnus
Katherine Jackson (2015) Accountant

• **Bursar**

Jaimie Cornell (2012) Bursar. B.A. Southern Connecticut State University
Carrol Lewis (2005) Assistant Accountant. M.B.A., Sacred Heart University; B.S., Sacred Heart University, A.S., Norwalk Community College
Yomaira Melendez (2011) Bursar Services Assistant, Business Office. A.S., Gateway Community College
Analia Pilco Corona (2011) Business Office. A.S., Gateway Community College

• **Purchasing**
Kelly Anne Levinson (1998) Fiscal Administrative Officer. MBA University of New Haven; B.S. University of New Haven; A.S., Gateway Community College
❖ **Facilities and Events Management**

Sandra Garde (1999) Secretary II
Charlene Thomas (1988) Office Assistant. A.S. Gateway Community College, Diploma for Secretarial Science, Stone Business School
Brian Higney (2007) Facilities Coordinator. A.S., Gateway Community College
Cary Broderick (2012) Police Sergeant
Michael Martone (1998) Office Assistant

• **Maintenance**
Aaron Brantley (2019) Custodian
Raynaldo Bermudez (2019) Custodian
Rodney Carr (2014) Custodian
Ricardo Castro (2018) Custodian
Richard Catenza (2010) General Trades Worker. Diploma New England Technical Institute
Edward Chavis (2007) Custodian
Charles Cole (2007) Lead Custodian.
Christine Crawford (2012) Custodian
Leroy Deberry (2012) Supervising Custodian.
Denay Emery (2012) Custodian
Brian Ferraro (2012) Qualified Craft Worker-HVAC-R
Clara Ferraro (2007) Custodian. American Business School Columbia

John Fulton (2014) Custodian

Mohammed Hudu (2014) Custodian. Certificate, O'Reilley Senior Secondary School, Ghana

Pedro Lopez (2018) Custodian

Maribel Lugo (2001) Custodian

Vincent Martir (2019) Custodian

Durrell McNeal (2019) Custodiabn

Joel Medina (2012) Custodian

Michael Nocera, Jr. (2018) Custodian

Lucas Ortiz (2007) Lead Custodian

Mark Perez (2012) Custodian

Joseph Prince (1984) Building Superintendent II

Luis Soler (2007) Custodian

❖ Information Technology

Lawrence Salay (2005) Director. M.B.A., University of Phoenix; B.S. Mercy College

John Desrosiers (1996) Assistant Director of Information Technology. B.I.T., American Intercontinental University; A.S., Gateway Community College

William Miklos (1998) Network Manager. M.S. Sacred Heart University, B.S., Charter Oak State College; A.S., Gateway Community College

Dean Ferro (2006) Technician II. B.S., Central Connecticut State University

Derek Fries (2009) Network Manager. A.S., Tunxis Community College

Urfi Agolli (2015) Information Technology Tech II. A.S., Gateway Community College

Jeff Becker (2015) Information Technology Tech II. B.A., Quinnipiac University

George Sacal (2015) Information Technology Tech II. B.S., University of Bucharest, Romania

Gladis Reyes (2015) Help Desk Coordinator /Information Technology Tech 1. B.A., Southern Connecticut State University; A.S., Gateway Community College

❖ Institutional Research

Vincent Tong (2000) Director of Institutional Research. Ph.D., Yale University; M.A., University of Michigan; B.A., New York University

Jamicia Lackey (2020) Research Specialist. M.A. Yale University, B.A. Duke University♦ **Academic Affairs Division**

Mark Kosinski (2006) Dean. Ph.D., M.A., Bowling Green University; B.A. Alliance College

Angela Richter (1998) Assistant to the Dean of Academics. M.M., University of Phoenix; B.S., University of Bridgeport; A.S., Gateway Community-Technical College; ARRT(T)

Shelly Frosolone (2004) Administrative Assistant, Dean of Academic Affairs, A.S., Gateway Community College

Wilhelmenia Parsons (2009) Office Assistant. A.S., Gateway Community College

Susan Gilman (2018) Office Assisrant. B.S. Southern Connecticut State University

Lisa Corbeil (2005) Secretary II. B.S. Charter Oak State College; A.S.Middlesex Community College; Certification-Paralegal Litigation

Mark Magnotti (2012) Office Assistant

Jackelyn Rayes (2020) Office Assistant. A.S. Gateway Community College

Briana Lewis (2020) Office Assistant. B.A. University of Connecticut

Celia Carvalho* (2013) Interim Coordinator of Dual Enrollment & CCP Partnerships. M.A. University of St. Joseph, B.A. Languages Universidade Sao Francisco

Bridget Mullally (2014) Instructional Support Specialist. M&E, M.S. University of Bridgeport, B.A., Southern CT State University

Donnell Hilton* (2016) Middle College Coordinator, M.S. Southern Connecticut State University

Erik Murrell* (2019) Gateway to College Associate Director, M.S. Fordham University

Robin DeJesus* (2019) Gateway to College Student Resource Specialist, B.S. Sacred Heart University

❖ Academic

• Allied Health and Nursing

Sheila B. Solernou (2002) Director Allied Health/Nursing. M.S.N., University of Hartford; B.S.N., Mount St. Mary College; R.N.

Mary Beth Banks (2004) Enrollment Services Assistant. M.P.A., University of New Haven, M.S., University of New Haven; B.A., Merrimack College

Alice M. Pandolfi (1999) Administrative Coordinator. M.P.H., Southern Connecticut State University; B.A., The Catholic University of America

William Stewart (2019) Culinary Associate. B.S. Syracuse University, A.S. Gateway Community College

Heather Henry (2020) Allied Health/Nursing Advisor. DNP Quinnipiac University, MSN, BSN Texas Woman's University, B.S. University of Kansas

• **Automotive Technology**

Edward Barlage (2016) Automotive Program Facilitator. B.A., Michigan State University

• **Engineering and Applied Technologies**

Donna Bruno (1986) Office Assistant. Diploma for Executive Secretary, Stone School of Business; Certificate, Gateway Community College

• **Math/Science**

> **Belinda Petrovic** (2012) Academic Associate. B.S., Central Connecticut State University; A.A., Gateway Community College

• **Early Learning Center**

Sarah Chambers (2016) Director of Child Development Center. M.S., Eastern Connecticut State University; Masters level CT Directors Credential, Charter Oak State College, B.A., Plymouth State College

Mary Palermo (1998) Secretary II. B.G.S., University of Connecticut; A.S., Gateway Community College

Linda Alston (1998) Child Development Teacher. B.A., Connecticut College

Stella Okparanta (1990) Child Development Teacher. M.S., University of New Haven; B.A., Albertus Magnus; A.S., South Central Community College

Annmarie Rosario (2001) Child Development Assistant Teacher. B.S. University of Bridgeport, A.S., Gateway Community College

Leasa Torelli (2010) Child Development Assistant Teacher, Modified Montessori Classroom, A.S., South Central Community College, Certification Assistant Montessori

Gwendadine Felder* (2018) Child Development Assistant Teacher, A.S. Gateway Community College

Jennifer Leake * (2019) Child Development Assistant Teacher, A.S. Gateway Community College

Stacey Empric ** (2019) Child Development Assistant Teacher, A.S. Housatonic Community College

• **Instructional Design and Development**

> **Director** - Vacant

• **Library & Learning Commons**

Martha Lipowski (1993) Director. M.L.S., B.S., Southern Connecticut State University

Michael J. Cifferelli (2003) Librarian. M.L.S., Southern Connecticut State University; B.A.; Trinity College; A.A., Gateway Community College

Jianxin Yang (2006) Librarian. M.S., Texas Tech, M.L.S., Southern Connecticut State University; B.S. University of Heliongjiang

Lillian Maisfelht (2004) Librarian. M.L.S. Southern Connecticut State University, B.A., University of Massachusetts

Todd Hampton (2013) Librarian. M.L.S., Southern CT State University; B.S., Eastern Connecticut State University

Miguel A. Garcia III (2018) Librarian. Ed.D.,Central Connecticut State University, M.L.S., M.S. Southern Connecticut State University, C.A.S. Sacred Heart University, B.A. Yale University

Conor Perreault (2019) Systems Librarian. M.L.S., Southern Connecticut State University; B.S,. Northeastern University

Jennifer Brown* (2010) Library Assistant. M.S. The College of St. Scholastica, B.S. Lindenwood University

• **Educational Technologies**

Alfonzo Lewis (2001) Educational Technologies Specialist. B.A., University of Connecticut

Taylor Rajaniemi (2017) Acting Media Specialist, B.S. Southern Connecticut State University
♦ **Student Services Division**

   Alese Mulvihill (2019) Interim Dean.
   Amy DeFigueiredo (2006) Administrative Assistant. B.S., Southern Connecticut State University

◆ **Student Engagement and Career Development**

Leigh Roberts (2015) Student Engagement and Career Development. M.A. Albertus Magnus College
Richard Palinko* (2013) EA Veteran Affairs. A.S., Gateway Community College, B.A. University of New Haven
;•**Student Activities**

Alfred Guante (2020) Director. M.Ed. Northeastern University; B.A. University of Connecticut.
Nina Evers* (2014) Educational Assistant
• **Student Success: Advising and Retention**

Michael Buccilli (2010) Director, MSW Southern Connecticut State University, B.S. University of Vermont
Kathleen Ahern* (2013) Inerim Director. M.S. Southern Connecticut State University, B.S. University of Rhode Island, NCC Certified; Licensed Professional Counselor (LPC)
Sandra Eskridge (2001) Student Development and Services Associate. M.S., B.A., Fort Valley State College
Roberta Prior (2004) Student Success Specialist. M.S. Western Illinois University, B.A1. Central Connecticut State University
John Mullane (2008) Counselor. M.S., Central Connecticut State University; B.A., University of New Hampshire
Sandy Mastropetre (2019) Academic Advisor. B.S. Quinnipiac University
Kristina Kosnoff (2019) Academic Advisor. B.S. Fordham University
Claudine Tolbert (2019) Academic Advisor. M.A. University of St. Joseph's, B.A. Lehman College
Stephanie Perez* (2020) Acting Counselor. M.S. Southern Connecticut State University; B.S. Northeastern University
Kristoff Helmeczi (2020) Office Assistant. A.S. Gateway Community College
• **Student Accessibility Services**

   Ronald Chomicz (2012) Learning Disabilities Specialist. Sixth Year, M.Ed., SYC; Southern Connecticut State University; B.A., Central Connecticut State University
   Samantha Murphy (2012) Learning Disabilities Specialist. M.S., Southern Connecticut State University; B.A., Eastern Connecticut State University; A.A., Northwestern Community College

• **Counseling and Wellness**

Licella Arbodela (2015) Director. M.S., B.A., Southern Connecticut State University; A.S., Gateway Community College; NCC Certified; Licensed Professional Counselor (LPC)
Melissa Sirois (2020) Office Assistant.
• **Enrollment Management**

J.A. Tony Carberry (2015) Director. E.M.B.A., University of New Haven, B.A., Elmhurst College
Wanda Edwards (1999) Secretary II. MBA, M.S. Business Administration and Leadership, B.S. Albertus Magnus College, A.S. Gateway Community College

• **Gender Equity**
Jennifer Wenderoth-Holster* (2015) Interim Gender Equity Coordinator. B.A. Central Connecticut State University, CT Certified Sexual Assault and Domenstic Violence Crisis Counselor/Advocate
• **Financial Aid**

Raymond R. Zeek (1994) Director. M.S., Southern Connecticut State University; B.A., Franklin & Marshall College
Amy Poskus (2018) Associate Director. M.S. University of Bridgeport, B.L.S. University of Tampa
Lavanda Bryant (2008) Assistant Director. MSW, B.S. Southern Connecticut State University, A.S., Gateway Community College
Hongyu Li (2012) Accountant. M.S. University of Hartford; B.S. Xian University of Technology, CPA
• **Registrar**

Maribel Lopez (2005) Registrar. M.B.A., University of New Haven; B.S., Southern Connecticut State University.

Susan Serrantino (1999) Associate Registrar. B.S., Charter Oak State College; A.S., Gateway Community College.

Abdul Alsamraie (2013) Assistant Registrar. A.S. Gateway Community College. Workforce Development & Continuing Education

Jenny Cintron-Dickens (2017) Registration Services Assistant. MBA, B.S. Albertus Magnus College, A.S. Gateway Community College

Teresa Delvalle-Saddler (2016) Office Assistant

Jamaine Linton (2016) Office Assistant

• **Admissions**

Elizabeth Vega (2003) Associate Director. M.S. University of Bridgeport, B.S.W., Southern Connecticut State University; A.S., Gateway Community College

Michelle Fraser (1998) Associate Director. M.S.M., Albertus Magnus College; B.S., University of New Haven; A.S., Gateway Community College

Jeanette Rivera Epps (2017) Assistant Director. B.A. Western Connecticut State University

Mary-Jo Pallotto* (2019) Interim Admissions Transfer Coordinator, ABD Northcentral University

Lisa Barletta (2008) Office Assistant

Sansanee Bijananda (2000) Office Assistant. Certificate, Gateway Community College

Monica Garcia (2006) Office Assistant

• **Center for Educational Services**

Clara Mena (2005) Director. M.S., Southern Connecticut State University; B.A., Charter Oak State College; A.S., Gateway Community College

Natasha Jackson* (2019) CES Administrator. A.S. Gateway Community College

❖ **Workforce Development & Continuing Education**

Erika Lynch* (2012) Interim Director of Non-Credit Programs. B.S., Quinnipiac University

Marianne Lippard (2010) Administrative Assistant. B.A. Clemson University

Jaime French* (2004) Director, Step Foward. M.A. University of Utah; B.A., SUNY Albany

Pamela Walsh (2015) Coordinator, Continuing Education. B.S., SUNY, Brockport NY

Kaitlyn Kos* (2014) Coordinator of Adult Education. M.S., Southern Connecticut State University; B.A., Central Connecticut State University

Victoria Dancy* (2016) Interim Continuing Education Coordinator. Today's Youth Tomorrow's Career's Program Manager. M.B.A., University of New Haven; B.S., Albertus Magus College

Monica Madeux* (2019) Continuing Education Associate. B.S. Corporacion Universitaria Iberoamericana (Bogota-Colombia)

Thomas Gaudioso* (2018) SNAP E & T Coordibator. M.S. University of New Haven, B.S. Eastern Connecticut State University

Michele Stom* (2019) Coordinator, Step Forward. B.S. Mansfield University

* Denotes Full-Time Educational Assistant
** Denotes Full-Time Lecturer

Emeriti

Thomas M. Adams (1983-2011) Professor Emeritus of Computer Engineering Technology

Frank D. Archangelo (1981-2003) Associate Professor Emeritus of Chemistry/Math/Physics

John Argento (1983-2009) Professor Emeritus of Chemistry, Math and Physics

Margaret Bauer (1978-2009) Dean Emerita of Research and Development

Mary P. Birdsey (1978-2003) Professor Emerita of Business Office Technology

Victoria Bozzuto (1994-2019) Dean Emerita of Workforce Development, Continuing Education

Carol Brutza (1998-2019) Professor Emerita ESL, Peace & Conflict Studies

William F. Celotto, PE (1979-1999) Professor Emeritus of Mechanical Engineering Technology
Michele N. Cone (1981-2007) Director Emerita of Library
Arthur Corda (1976-2009) Director Emeritus of Facilities and Events
Daniel J. Courcey, Jr. (1969-2011) Professor Emeritus of Social Sciences
Jesse Davis (1971-2011) Professor Emeritus of Psychology
William J. Dean (1977-2003) Professor Emeritus of Social Science
Diana P. Duarte (1972-2003) Professor Emerita of Business Office Technology
Roy Francis (1979-2005) Director Emeritus of Engineering and Applied Technologies
Frank Gallagher (1985 - 2009) Professor Emeritus of Computer Science
Russell Gaudio (1991-2014) Professor Emeritus of English
G. J. Gerard (1982 - 2009) Professor Emeritus of Electrical Engineering Technology
Richard Halkyard (1999-2019) Professor Emeritus Engineering Technologies
Martha Hayes (1996-2019) Professor Emeritus English
Martha M. Hirsch (1986-1997) Associate Professor Emerita of Gerontology
Joyce Donen Hirschhorn (1969-1991) Professor Emerita of Human Communication
L.C. Hopes (1972-1992) Professor Emeritus of Sociology
Marsha Janik (1990 - 2009) Professor Emerita of Business Office Technology
Edith G. Jaquiery (1980-1992) Dean Emerita of Academic Affairs
Susan Moore Lincoln, (1969-1997) Dean Emerita of Students
Dominic Longo (1979-1992) Associate Dean Emeritus of Instruction
Wilson Luna (1995-2019) Dean Emeritus Student Affairs
Joseph E. Magyar (1968-1997) Associate Dean Emeritus of Community Services
Julie Perego Mangini (1989) A.R.R.T. (R). Professor Emerita-Radiography
Ann B. Manner (1977-1992) Professor Emerita of Chemistry/Math/Physics
Stuart J. McEnerney (1970-1989) Professor Emeritus of Mathematics
Thomas McGrath (1981-2019) Professor Emeritus, Biomedical Engineering Technology
Carol Guerrera McHugh (1970-2014) Executive Assistant Emerita to the President
Tina McHugh (1978-2011) Director Emerita of Counseling
Victor C. Medina (1998-2014) Professor Emeritus of Sociology
Donald Mei (1972-2009) Professor Emeritus of Accounting and Political Science
Luis F. Melendez (1990-2013) Director Emeritus of Center for Educational Services
Robert A. Miles (1972-2009) Director Emeritus of Career Services
Karl S. Paecht (1977-1992) Associate Professor Emeritus of Manufacturing Engineering Technology
Bonnie A. Pease (1979-2003) Librarian Emerita of Library
Cheryl A. Pegues (1986-2009) Director Emerita of Student Development/Services
Albert Pesticci (1981-2009) Professor Emeritus of Math and Science
David Pettigrew (1990-2011) Professor Emeritus of Automotive Technology
Richard Rees (2002-2019) Professor Emeritus Business
Ann G. Robinson (1972-1999) Professor Emerita of Psychology
Kenneth R. Robinson (1970-1988) Professor Emeritus of Sociology
Irving Rosenthal (1971-1990) Professor Emeritus of Sociology and Anthropology
John Scippa (1972-2011) Professor Emeritus of Media, Film and Human Communication
Cheryl Shannon (2007-2019) Professor Emeritus Social Sciences
Edmund L. Sobolewski (1977-1987) Dean Emeritus of Students
David M. Swirsky (1982-2011) Registrar Emeritus of Records
William E. Thumbeck (1970-2003) Professor Emeritus of Mathematics
Virginia Woolums (1996-2019) Professor Emerita English

Board of Regents for Higher Education

The 17 Connecticut State Colleges and Universities (ConnSCU) governed by the Board of Regents for Higher Education, offer students an affordable, accessible option to further their education or career training. With 12 community colleges, 4 state universities and an online college, no matter where you live or work, there's a ConnSCU campus close to you.

Matt Fleury, Chair
Merle W. Harris, Vice Chair
Richard J. Balducci
Aviva D. Budd
Naomi K. Cohen
Delwyn F. Cummings**
Felice Gray-Kemp
Holly Howery
David R. Jimenez
William Lugo**
Sage Maier
Raul Pino**
Pete Rosa
Elena Ruiz
JoAnn Ryan
Catherine Smith**
Dianna R. Wentzell**
Kurt Westby**
Elease E. Wright

** Ex-Officio Members

Leadership Team

The Connecticut State Colleges and Universities (ConnCSU) leadership team works with the campus leaders, faculty, and staff to help increase the educational attainment of Connecticut's adult population. All 17 college and university presidents report directly to President Kennedy, who reports to the Board of Regents for Higher Education. ConnSCU leadership team members provide additional support and guidance for both the Board and campuses.

President - Mark E. Ojakian
Provost and Sr. Vice President – Jane McBridge Gates
Vice President for State Universities - Elsa Nunez
Vice President for Community Colleges - Dr. David Levinson
Director of Government Relations - Sean Bradbury
Associate Director of Board Affairs - Erin Fitzgerald
Director of Research and System Effectiveness - William J. Gammell, Ph.D.
Director of Strategic Initiatives - Michael Kozlowski
Director of Communication - Maribel La Luz
Chief of Staff - Alice Pritchard
Chief Financial Officer - Erika H. Steiner
Chief Information Officer – Joe Tolisano
Counsel - Ernestine Y. Weaver
Vice President of Human Resources - Steven Weinberger

President's Executive Council (Formerly Regional Advisory Council)

Shay Atluru (North Haven)
Larry Bingaman (New Haven)
Dr. Carol Birks (New Haven)

Althea Marshall Brooks (New Haven)
Kevin Burke (Hartford)
Martha Carlson (Hartford)
William Ginsberg (New Haven)
Jeff Hubbard (New Haven)
Jill Rubin Hummel (Wallingford)
Lenell Kittlitz (Newington)
Jeff Klaus (New Haven)
The Honorable Martin Looney (New Haven)
Tony Rescigno (New Haven)
Robert Santy (Rocky Hill)
Garrett Sheehan (New Haven)
Carlos Torre (New Haven)
William Villano (New Haven)

Gateway Community College Foundation, Inc.

Mission Statement:

Access to a quality education is a fundamental right all citizens should enjoy. The Gateway Community College Foundation raises and manages private funds on behalf of Gateway Community College to supplement state funds by providing scholarships, professional development grants, equipment, and program support that ensure success for all Gateway Community College students.

Paul McCraven, Chair, Comm & Economic Development Consultant
Helene Augustine, Vice Chair, VP, Trust & Fiduciary Specialist
Thomas Beirne, Treasurer, VP Halsey Associates
Sally Glick, Secretary, VP & Adminstrator, Chamber Insurance Trust
Richard Borer, President, Goodwill Southern New England
Hiram Brett, Principal, Brett Associates
Althea Marshall Brooks, Exec. Dir., Waterbury Bridge to Success Community Partnership
Dan Caron, TrussT Consulting, Inc.
Kevin Dougherty, People's United Bank
John Emra, President for Connecticut AT&T
Linda Fitzgerald, Crown World Wide
Charles Frey, Nonprofit Consultant
Lindy Gold, Senior Regional Management, CT State Dept. of Economic & Comm. Development
Peter D. Graeb, Beers, Hamerman, Cohen & Burger, PC
Thomas Griggs, Jr., Co-Executive Director, Int'l Festival of Arts & Ideas
Allen Hadelman, President, Hadley, Inc.
Roberta Hoskie, President/CEO Outreach Realty
LaKisha Jordan, Corporate Responsibility Officer, Keybank
Mimi Lines, Robinson & Cole, LLC
Wilson Luna, Retired, Gateway Community College
Nicolas Phillips, WSP USA
Ruby Melton, Community Leader
Linda Randell, Attorney/Consultant
Pedro Soto, Account Manager, CRT Power Systems LLC - SpaceCraft
Susan Stone, Community Leader
Holly Wheeler, Carmody Torrance Sandak & Hennessey
Ena Williams, Sr. Vice President, Chief Nursing Officer, Yale New Haven Hospital
Ex-Officio Directors

Paul Broadie II, Ph.D., President, Gateway Community College
Mark Lynch, Ph.D., Faculty Representative, Professor, Gateway Community College
Monica Maldonado, SGA President, Gateway Community College

Advisory Committees

These committees assist the program faculty in maintaining quality programs, relevant courses, and appropriate experiences that reflect the needs of area businesses and service industries, as well as local, state, and federal agencies.

• **Automotive Technology**

CARS Program

Walter Barrientos, Technician
Reginald Fleurantin, Graduate, technician
Dan Fuller, Department Chair
Gary Gara, Cross High School
Lee Gouveia, Owner, My Garage
Steve Halpern, AAA Northeast
Scott McFarland, Faculty/Coordinator
George Panagiotou, Subaru of NE, Technical Training Operations Manager
Joe Vertucci, Graduate/Faculty

Honda PACT

Dan Fuller, Department Chair
Gary Gargano, Service Director, Executive Auto Group
Steve Halpern, AAA Northeast
John Hauk, Service Manager, Curtis Ryan Honda
Scott James, AHM training center Coordinator
Haydon Kissel, student
Pat LeClair, Service Manager, Honda of Westport
Keith Levins, AHM dpsm
Scott McFarland, Faculty/Coordinator
Hope Niles, AHM dpsm
Dan Sharma, AHM trainer

General Motors (ASEP)
Edward Barlage, III, Automotive Program Facilitator
Jay Bradley, Karl Chevrolet
John DeMartin, Parsons Buick
Ron DePoto, Parent of Student
Tim Feegel, Jackson Chevrolet
Dan Fuller, Department Chair
Mark A. Lentine, Snap-On Tools
Ken Pfeiffer, Valenti Chevrolet
Robert Richnavsky, Ingersoll Automotive
Dan Schnaufer, D'Addario Buick-GMC-Cadillac

• **Biomedical Engineering Technology**

Raymond Acosta, Chief Biomedical Engineering Technician, Yale-New Haven Hospital
Athan Chekas, Director, Clinical Engineering / Communications, Hartford Healthcare
Vincent Cianci, Supervisor, Clinical Engineering, YNHH - St. Raphael Campus (GNHSTC 1984)

Tony D'Adamo, Regional Service Manager, Novamed Corporation
Roger DeBaise, Biomedical Engineer, Gaylord Hospital
Arthur Hanson, CBET, Manager, Biomedical Engineering, Gaylord Hospital
Anton Hebenstreit, Clinical Engineering, University of Connecticut Health Center
John Klemenz, Director, Veterans Administration Medical Center, West Haven
Thomas Koshis, X-Ray Engineer, GE Healthcare (Ret.) (GNHSTC 1986)

• Business / Business Office Technology / Retail / Entrepreneurship / Hospitality
Margaret Antonelli, A.S., South Central Community College, Veterans Affairs Medical Center
Chris Bartlett, Skater's Landing and Global Entertainment Media
Richard G. Bell, Esq., Chair of the Watershed Fund/Regional Water Authority
Marlon Bennett, The Lighting Quotient
Dennis Brown, Business Consultant
Sharon Burns, Wal-Mart
Diane Calello, Yale-New Haven Health System
Allan Codore, GM, Omni New Haven Hotel at Yale
Pat Daniel, New Haven Chamber of Commerce
Beth DuPont, Director of Human Resources, CT Hospital Association
Corinne Fisher, Yale University School of Medicine
Michelle Fraser, Gateway Community College
Susan Gendreau, Qualidigm
Jane Griffith, Esquire
Drew Harris, Professor, Central Connecticut State University
Scott Healy, Town Green Special Services District,
Scott Hibson, Director of Sales, New Haven Hotel
Ed Hill, U.S. Navy Office of the Supervisor of Shipbuilding Small Business Liaison
Stan Kapinos, Innotech**John Mathers**, GM Madison Beach Hotel
Dr. Tam H. Le, DMD, Hamden Family Dental Center, LLC
Ann McDonnell, EcoGenics
Susan McLean, A.S., South Central Community College, United Illuminating
Debbie Mele, Sales Manager, Omni New Haven Hotel at Yale
Chris Ortwein, Town Green District Economic Prosperity Initiative
Joe Pasquantino, U.S. Navy Office of the Supervisor of Shipbuilding Small Business Liaison
Lynn Peterson, Marketing Director, Westfield Connecticut Post
Tim Phalen, Connecticut Retail Merchants Association
Matthew Potochney, The Lighting Quotient
Michael Roer, Entrepreneurship Foundation
Patricia Sanders, Post College President Emeritus, Chairman, New Haven SCORE
Jose Santiago, Walgreens
Linda Trudeau, Board of Education, Guilford, CT
Robin Vuillermet, Co-owner, Union League Cafe
Maya Vulinovic, Director of Human Resources, Study Hotel at Yale
Karen Weil, Director of Food and Nutrition, Milford Hospital
Clay Williams, City of New Haven Small Business Development
Neville Wisdom, Neville Wisdom Fashion Design Studio
Lisa Woods, Connecticut Procurement Technical Assistance Program
Berdest Wrisbon, A.S. Gateway Community College, ACES, Program Development
Michael Zacchea, Lt. Col. USMC (ret.) UCONN Entrepreneurship Bootcamp for Veterans with Disabilities
• College of Technology Site Coordinators and Advisory Committee

Mobin Rastgar Agah, Norwalk Community College
Mary Bidwell, Asnuntuck Community College
Christine Broadbridge, Executive Director, Research & Innovation, Southern CT State University
Daniel Burkey, Associate Dean, University of CT, School of Engineering

Basia Dellaripa, Capital Community College
Mehrdad Faezi, Manchester Community College
Ann Marie Gagnon, Charter Oak State College
Michael Gentry, Three Rivers Community College
Laurie Granstrand, University of Hartford
Sharon Gusky, Northwestern CT Community College
Harvey Hoffman, Fairfield University
Lin Lin, Middlesex Community College
Justin Moore, Naugatuck Valley Community College
Olusegun Odesina, Assistant Dean, Central CT State University, School of Engineering
Robert Ryder, Housatonic Community College
Nancy Savage, Dean, University of New Haven, School of Engineering
Gad Selig, Dean, University of Bridgeport, School of Engineering
Polly Silva, Eastern CT State University
Jakob Spjut, Quinebaug Valley Community College
Susan Spencer, Gateway Community College
Greg Szepanski, Tunxis Community College
Mark Vesligaj, Three Rivers Community College
Karen Wosczyna-Birch, COT Executive Director

• Computer Engineering Technology

    Dr. Hisham Alnajjar, Associate Dean, Electrical & Computer Engineering, University of Hartford
    Dr. Atluru, Chief Executive Officer, Diversified Technology Consultants
    Chris Bassett, Director of Information Technology, Town of North Haven
    Michael Buccilli, Director of Career Service, Gateway Community College
    Michael Doering, Director of Quality - Fire Systems, Honeywell Fire Systems
    Steven Dufour, Software Design Assurance Manager, Honeywell Fire Systems
    Richard Halkyard, Associate Professor, Gateway Community College
    Dr. Scott Hamilton, Professor and Chairman of Engineering, Quinnipiac University
    Dr. Ronald Harichandran, Dean of Tagliatela College of Engineering, University of New Haven
    Alex Linos, Franchise Owner, Nerds to Go
    Lee Panagoulias, Professor, Gateway Community College
    Larry Salay, Director of Information Technology, Gateway Community College
    Poulomi Sanyal
    Dr. Karen Tracey, Department Chair, Computer Electronics & Graphics Technology, CCSU
    David Yaccarino, State Representative, R-87

• Computer Science Technology

    Robert Jasek, Information Security Officer, Yale University
    Mohammed Hanif, Senior Engineer, Northeast Utilities
    Carrie M. Horvath, Ph.D., Portal Support Specialist, Connecticut Community Colleges
    Robert Hubbard, Business Admin. & Management Department Chair, Albertus Magnus College
    David Pfrommer, Senior Software Engineer, CD Solutions, Inc.

• Drug and Alcohol Recovery Counselor Program

Kathleen Callahan, Trauma and Gender Coordinator, Women's Consortium
Susan Campion, President, Connecticut Association of Addiction Professionals
Jeff Epps, LADC, MSW, CCJP, Regional Network of Programs
Renee Hausman, Director of Admissions, Children's Center Hamden
Charles MacDonald, Director, Forensic Health Services
Jeff Quamme, Executive Director, Connecticut Certification Board, Inc.

Teresa Roehrich, MS, LADC, CCS, Clinical Supervisor, Apt Foundation
Eileen Russo, MA, LADC, CCS, DARC faculty
Elsa Ward, Director, South Central Peer Service (affiliation of Connections)
Robin Woodward, MS, LADC, Waterbury Hospital Behavioral Health
• **Electrical Engineering Technology**

> **William Bacon**, Vice President, Metrology Operations, Zygo Corporation
> **Harold Hansen**, Senior Engineer, Hamilton Sundstrand Space Systems International (UTC)
> **Robert O'Connor,** Technical Consultant
> **Ron Robert**, Staffing Manager, United Illuminating Co.
> **Charles E. Ruotolo**, Electrical Engineering Consultant, Ruotolo Electric
> **Lisa Sampietro**, Assistant Branch Manager, Randstad US
> **Edmond Vinarub**, Electronic/Electro-Optics Consultant

• **Environmental Science and Toxicology**

> **R. Scott Allen**, Enforcement Officer, Inland Wetland and Water Courses Commission
> **Dr. Murali Atluru**, Diversified Technology Consultants
> **Patrick Bowe**, Airt Management Bureau, CT Department of Environmental Protection
> **Charlie Cappannari**, Cytec Industries, Inc.
> **Mary Chesley**, Environmental Monitoring Laboratory, Inc.
> **David Ditta**, Complete Environmental Testing
> **Jim Dziuba**, Marin Environmental
> **Thomas Morrisey**, Director of Planning, Water Management Bureau, CT Dept. of Environmental Protection
> **William Williams**, Vice President, Consulting Environmental Engineers
> **Ken Zercie**, Assistant Director, State Police Forensic Laboratory

• **Humanities**

> **Dino Ciaburri**, Adjunct Faculty, Gateway Community College, Headmaster, Milford Academy (Ret.)
> **George Charlesworth**, Attorney
> **Donald Dimenstein**, Director of Elderly Services (Ret.)
> **Sandy Kooregian**, Executive Director, Domestic Violence Services of Greater New Haven
> **Paul Musco**, Shoreline Chiropractic Services
> **Howard Reitman**, Director, Reitman Personnel Agencies
> **Vivian Shipley**, Professor of English, Southern CT State University
> **John Artis Yopp**, Director, Department of Children and Families

• **Human Services**

Tracy Blanford, Professor, Gateway Community College
Kellie Byrd Danso, Norwalk Community College
Chantal Gray, Boys and Girls Club of New Haven
Barbara McMillian, Liberty Safe Haven
Eric Murrell, Gateway Community College
Kyle O'Brien, SCSU, Ph.D., DHSc, MSW, MSOT, LCSW, OTR/L
Teresa Russo, Professor, Gateway Community College
• **Manufacturing Engineering Technology**

> **Dr. Eben C**. Cobb, Professor, Worcester Polytechnic Institute
> **Russell J. Corriveau**, Senior Manufacturing Engineer, Sargent Manufacturing Company
> **Vincent Dinicola, Jr.**, Senior Manufacturing Engineer, U.S. Surgical
> **Geraldo C. Reyes, Jr.**, General Manager, Sargent Manufacturing Company
> **Robert Paternoster**, Adjunct Faculty, Gateway Community College.

• **Mechanical Engineering Technology**

John Bokowski, Operation Consultant, United Illuminating
William Celotto PE Retired, Mechanical Engineering Technology, Gateway Community College
Ilias Diamantis, Project Engineer, Parker Hannifin Corporation
John Sarris, Ph.D, Chair, Mechanical Engineering Department, University of New Haven
Protais Tala, Validation Engineer, CAS Medical System, Inc.

• **Nursing**

Susan Diehl, Professor & Chair, Nursing Division, University of Hartford
Lindsay Donnelly, Nursing Education Coordinator, Gaylord Hospital
Mary Ann Glendon, RN to BSN Coordinator, Southern CT State University
Peggy Joyce, Administrator, Whitney Center
Judy Hahn, Director of Education & Professional Development, Yale New Haven Hospital
Carol Martineau, Supervisor, Elim Park Health Care & Rehab
April McGrath, Graduate, Gateway Community College
Lisa O'Connor, Director of Undergraduate Nursing Program, Quinnipiac University
Linda Pellico, PhD, APRN, Yale University School of Nursing
Lisa Rebeschi, Chairperson & Associate Professor, Dept. of Nursing, Eli Whitney Technical H.S.
Melinda Schoen, VP for Nursing, Masonicare
Ginnine Tanoia, Montowese
Beverly Tontini, HR Recruiter, VNA

• **Nutrition and Dietetics**

Donna Caseria, RD, Clinical Nutrition Research Coordinator, Yale-New Haven Hospital
Anne Davis, Ph.D., RDN, FAND, Director of Dietetics, University of New Haven
Marcia Doran, RDN, Professor, Gateway Community College
Elaine Lickteig, RDN, Clinical Coordinator, Gateway Community College
Judy Prager, RDN, CD-N, Nutrition Consultant
Nina Ruckes, RD, Nutrition Consultant

• **Radiology**

Jon Alderman, Research Associate, Yale School of Medicine
Denise Allen, Regional Chief Therapist, Yale New Haven Hospital
Julie Austin, Radiography Program Director, GCC
Michelle Bailey, Supervisor, Radiation Oncology, Danbury Hospital
Amy Barocsi, Chief Technologist, Nuclear Medicine, Milford Hospital
Nikki Bartolomeo-Perez, Assistant Chief Technologist, VA New England Healthcare System
Kathleen Bell, Regional Manager, Yale-New Haven Shoreline Medical Center
Karen Blackburn, Assistant Administrator of Radiology, William W. Backus Hospital
Reg Body, Clinical Instructor, GCC
Michael Bohan, Radiation Safety Officer, Yale-New Haven Hospital
Virginia Bowolick, Chief Radiation Therapist, Bridgeport Hospital
Angela Burnham, Lead Sonographer, St. Francis Hospital
Carissa Carta, Senior Technologist Nuclear Medicine, Middlesex Hospital
Melanie Caruso, Clinical Instructor, Department of Ultrasound, Middlesex Hospital
Celia Maria Carvalho-Rubino, Coordinator of Dual Enrollment & CCP Partnerships, GCC
Christy Casella, Clinical Instructor, Temple Radiology
Michelle Cone, Chief Radiation Therapist, Lawrence and Memorial Hospital
Christine Cooper, Director of Radiology & Cardiology, Griffin Hospital
Donna Costanzo, Radiologic Technololgist, Griffin Hospital
Lori Daley, Chief Technologist, Nuclear Medicine Department, VA Connecticut Healthcare System, West Haven Campus
David Daniele, Staff Technologist Nuclear Medicine, UCONN Health Center
Floyd Davis, Clinical Instructor, GCC
Sandra Dean, Radiology Interim Director, Middlesex Hospital

Nancy DeStefano, Lead Sonographer, Department of Ultrasound, Middlesex Hospital

Robert DeVito, Manager, Department of Diagnostic Imagine, Yale-New Haven Hospital

Joyce Giannelli, Clinical Instructor, GCC

Cheryl Granucci, Director, Diagnostic Radiology, Yale-New Haven Hospital

Matthew Gregory, Chief Technologist, Nuclear Medicine, Yale-New Haven Hospital

Kathy Hale, Radiation Therapy Instructor

Kathleen Hansen, Chief Technologist, Nuclear Medicine, MidState Medical Center

Ashley Harrison, Radiography Student, GCC

Bonnie Hensen, Lead Sonographer, VA Connecticut Healthcare System, West Haven Campus

Susan Higgins, Radiation Therapy Department, Yale-New Haven Hospital

Karen Hoang, Clinical Supervisor, Cardinal Health Nuclear Pharmacy Services (East Hartford)

Tony Hrenyo, Lead Sonographer, Milford Hospital

Alan Iovino, Chief Sonographer, Ultrasound, Norwalk Hospital

Ann-Terese Jasmin, Chief Radiation Therapist, Yale New Haven Hospital

JoAnne Jones, Chief Technologist, Bridgeport Hospital Radiology

Gandi Koura, Radiography Student, GCC

John Kim, Chief Dosimetrist, Yale-New Haven Hospital

Christine Kopp, Lead Sonographer, St. Francis Hospital

Mark Lewis, Chief Technologist, Radiology Department, VA Connecticut Healthcare System, West Haven Campus

John Magee, Sonographer Supervisor Ultrasound, Bridgeport Hospital

Debra Mauriello, Chief Technologist, VA New England Healthcare System

Michelle Bailey, Supervisor, Radiation Oncology, Danbury Hospital

Claudine Murphy, Radiation Therapy, Bridgeport Hospital

Shalene Neeman, Chief Radiation Therapist, Yale New Haven Hospital St. Raphael's Campus New Haven

Marion Owen, Sonographer, Supervisor of Ultrasound, William W. Backus Hospital

Susan Palumbo, Lead Sonographer, Ultrasound, Connecticut Children's Medical Center

Diana Pasqua Kardamis, Chief Technologist, Nuclear Medicine, Griffin Hospital

Michele Pepe, Manager, Nuclear Medicine, Yale-New Haven Hospital

Maureen Perachio, Manager, MR, Yale New Haven Hospital

Darcy Phillips, Manager, Nuclear Medicine, Lawrence & Memorial Hospital

Joseph Phillips, Director of Diagnostic Imaging/Therapeutics, UCONN Health Ctr.

Lauren Pierce, Supervisor/Lead Ultrasound Technologist, Bristol Hospital

Laura Quillia, Clinical Instructor, Lawrence & Memorial Hospital

James Ricci, Chief Technologist, Nuclear Medicine, William W. Backus Hospital

Staci Riley, Imaging Director, Lawrence & Memorial Hospital

Pauline Rocha, Manager, Breast Imaging and Film Library, Lawrence & Memorial

Linda Rossetti, Clinical Instructor, Radiology Department, Bridgeport Hospital

Tanya Rucker, Emergency Department, Yale-New Haven Hospital

Kyle Salerno, Sonographer, Supervisor of Ultrasound, Hospital of Saint Raphael

Rachel Sanderson, Radiation Therapist, Gateway Community College

Lawrence Saperstein, MD, Nuclear Medicine, Yale-New Haven Hospital

Christina Sartori, Radiation Therapist, Yale New Haven Hospital St. Raphael Hamden Campus

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Dana Schwartz, Advanced Radiology Consultants

Karen Shannon

Jamie Sheehan, Chief Technologist, Nuclear Medicine, Yale New Haven Hospital St. Raphael Campus

Roseann Shore, Clinical Instructor, Gateway Community College

Anthony Sicignano, Senior Staff Technologist, Nuclear Medicine, Yale New Haven Hospital St. Raphael Campus

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Linda Tamplini, Supervisor, Bridgeport Hospital-Antenatal Unit

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Robert Varsanik, Chief Technologist, Nuclear Medicine, Saint Francis Hospital and Medical Center
Jaye Viola, Radiography Clinical Coordinator, GCC
Ann-Marie Watrous, Manager, General Radiology, Yale New Haven Hospital, St. Raphaels Campus
Bozena Zieba, VA New England Healthcare System
• Railroad Engineering Technology

Brian Clark, CTC&S
Paul Constantinople, Retired, Metro North Railroad
Jose Correia, Foreman, MTA Metro-North Railroad
Marcellus Edwards, Conductor, MTA Metro-North Railroad
Garrick Fearson, Sr. Productivity Planner, MTA Metro-North Railroad
Fred Gill, Talent Acquisition Specialist, MTA Metro-North Railroad
Lawrence Ivy, Foreman, Mechanical, MTA Metro-North Railroad
Keith Kalish, Radio Maintainer, MTA Metro-North Railroad
Wayne Sanford, President, Shoreline Trolley Museum
Frank Vega, Foreman General I - MTA Metro-North Railroad