



# CATALOG 2022-2023

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# Course Catalog 2022-2023

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[www.nashuacc.edu](http://www.nashuacc.edu)

Nashua Community College (NCC) is one of the seven colleges in the Community College System of New Hampshire. For more information about CCSNH, call 800.247.3420, or visit [www.ccsnh.edu](http://www.ccsnh.edu).

This catalog is a guide to NCC and its contents are subject to revision at any time. The College reserves the right to change tuition, fees, courses, policies, programs, services and personnel as required. *A matriculated student must follow the curriculum of the program at the time of matriculation.*

Nashua Community College is a smoke-free campus.

This catalog is current as of February 15, 2022

## General Information

### President's Message

#### Welcome



Lucille A. Jordan  
President

At Nashua Community College, our mission is to provide high-quality education to meet

the diverse needs of our community. Dedicated faculty and staff are here to help students achieve their goals, and our active Student Life helps everyone get the most out of their college experience.

### A Welcoming Community

NCC students of all ages, backgrounds, and experiences find a welcoming environment on campus. Bilingual and multilingual staff help students and families navigate their education, and dozens of clubs and activities give students the chance to network and get to know their peers. The College swiftly adapts to the evolving needs of our community, whether it's through new programs, increased online learning, or additional support for students in need.

### Student Life

The Office of Student Life enhances the academic experience with co-curricular activities that foster a sense of meaningful involvement, community engagement, and student leadership. Student clubs, special events, and the Student Senate make it easy to network and engage in campus activities. Student services, and faculty and staff advisors, help students get the most out of their extracurricular activities. Beyond campus life, students benefit from NCC's engagement with the outside community. We keep a close relationship with the United Way of Greater Nashua, and host United Way events throughout the year such as food packing events to help food-insecure families, a community baby shower for families-in-need, and annual overnight fundraiser to address homelessness in Nashua. Our Multicultural Engagement department participates in local cultural outreach events and NCC also sponsors community events, such as the City of Nashua's Multicultural Festival.

### Access & Affordability

While maintaining quality programming and faculty, NCC also has the lowest tuition rate in the region. Our College Advisory Board is dedicated to raising scholarship funds for students in need, and our Financial Aid Office is always available to identify and facilitate access to grants, scholarships, and other funds.

Through our Purpose First mission, we guide students' academic plan toward the most efficient pathway, saving money and facilitating the transition to a career or higher education beyond NCC. Structured schedules are available to help students maximize their time at NCC, and maintain a comfortable work-life-school balance. Students also use the Career Coach online resource to evaluate their academic interests. Career Coach also provides local open positions and salaries that correspond with our academic pathways.

## Realize your purpose at NCC

With the help of experienced faculty and the support of program advisory boards, community partners and peers; NCC graduates go on to do great things. Our alumni are business owners, scientists, nurses, teachers, and engineers. They launch careers after graduation, upskill in existing roles, or transfer to four-institutions and beyond.

Find out where an NCC education can take you.

My best,

Lucille A. Jordan



## Mission

Nashua Community College provides quality, academically rigorous, higher-education programs focused on the diverse needs of students and the community.

## Vision

Nashua Community College (NCC) will continue to be the preferred provider of two-year, post-secondary education in the Nashua Region and evolve with the educational needs for lifelong learning.

## Educated Person

Nashua Community College helps students improve their lives and become more responsible as informed citizens and educated persons. The college community has defined a set of essential skills to maximize one's role as a contributing member of society. Among those skills are communications, information literacy, scientific reasoning, quantitative analysis, ethical responsibility, critical thinking, global connectedness, and tolerance for ambiguity.

## Core Values

The college community endeavors to guide and inspire a mindset of success in our students. Our core values help students to:

- Commit to the successful completion of a program at NCC;
- Communicate effectively in writing and speaking;
- Collaborate with others in group projects;

- Create new ideas and works;
- Challenge themselves to ask questions and to think critically.

The College fulfills its mission as determined by the extent to which the institution:

1. Engages in programs and activities that expand access to higher education for all members of the community
2. Provides students with a full range of student development and academic support services
3. Offers students the opportunity to contribute to the well-being of others through service learning and volunteerism
4. Prepares individuals for employment in a variety of careers in business, the health sciences, and public service
5. Serves as an entry-point for bachelor degree programs by providing the first two years of a four-year program
6. Provides economic development and continuing education activities to meet the needs of business, industry, and government
7. Collaborates with visual and performing arts organizations in the community to elevate the human spirit.

## Institutional Learning Outcomes

### Commit

Upon completion of their coursework at NCC, students will be able to:

- Articulate their devotion to the achievement of intellectual growth.
- Exhibit dedication to obtaining the essential skills required in today's workforce.
- Develop strategies for planning and carry out processes to accomplish tasks.

### Communicate

Upon completion of their coursework at NCC, students will be able to:

- Write clearly using language that effectively communicates meaning to readers.
- Orally present information using appropriate voice, mannerisms, and expressiveness.
- Consider diversity of audience, situation, and context when communicating.

### Collaborate

Upon completion of their coursework at NCC, students will be able to:

- Effectively work in diverse teams and be capable of recognizing and considering multiple perspectives of thought.
- Demonstrate professional conduct while interacting with others at the college, workplace, or community.

### Create

Upon completion of their coursework at NCC, students will be able to:

- Effectively employ 21st-century technology to collect and analyze information for academic or intellectual pursuits.
- Recognize and apply appropriate problem-solving techniques to draw rational conclusions based on evidence.
- Utilize quantitative analysis when determining the solutions to problems and developing new ideas.
- Demonstrate creativity and ingenuity when completing tasks.

### Challenge

Upon completion of coursework at NCC, a student will be able to:

- Demonstrate intellectual curiosity and feel empowered to experiment, test theories, and investigate solutions to problems.
- Demonstrate awareness of societal issues and describe the importance of participation in civic life.
- Articulate the importance of life-long learning and express a desire for continued intellectual growth beyond NCC.

## History

Since 1970, Nashua Community College has been successfully meeting the educational needs of Greater Nashua. Throughout the College's history, one thing has remained constant: The College has always reflected the needs of its community, keeping pace with student and economic demands to now offer more than 50 associate degree, certificate, and career training programs.

In 1976, the College expanded its facilities to include a separate automotive building. A \$3.6 million addition to the main building was completed in June 1986. This addition featured an expanded science area, general classrooms, a hydraulics/pneumatics/robotics laboratory, photography laboratory and studio, microcomputer laboratories, and an expanded cafeteria. In 1990, renovations were completed to accommodate a new program in Aviation Technology (Airframe and Powerplant). To address regional employment demands,

the College implemented new programs such as Human Services, Early Childhood Education, and Computer Science.

Funds were approved in Spring 1999 to build a new library and to upgrade science laboratories. The Walter R. Peterson Library opened in December 2000. In 2001, the Claremont Nursing Program was brought as a satellite to the Nashua Campus. The College received accreditation through the Commission on Institutions of Higher Education in 2002. Renovations to the main building and to the automotive building were undertaken in 2004 and 2005. In 2004, the Speech Language Pathology Assistant Program was added to address regional employment demands, and in 2005, the College was chosen to be the site for the Honda PACT Program. That same year, a bond was approved to build a Wellness Center.

The New Hampshire Board of Nursing gave approval to the Nashua Nursing Program in 2006, and the program received National League of Nursing initial accreditation in 2007. Ground was broken in April 2007 for the Wellness Center. In 2007, the New Hampshire Legislature approved money to plan a new health and science academic building. An addition to the Automotive Building was completed in Fall 2012. In January 2008, the New Hampshire Legislature approved a name change to Nashua Community College. The Wellness Center opened in Fall 2008. In June 2009, the New Hampshire Legislature approved capital improvement funds to construct a new health, sciences, and humanities academic building which opened Fall 2010. In July 2011, the HSH building was named Judd Gregg Hall to honor the U.S. Senator's devotion to education reform in New Hampshire. A \$2 million, 17,000 square foot addition to the automotive facility was completed in fall 2012. This expansion was paid for by State Capital funds. In January 2013, the Advanced Machine Tool laboratory renovation was completed. This \$1.6 million project was funded from the U.S. Department of Labor, Employment and Training administration TAACCCT grant. In 2016, a second TAACCCT grant of \$2.5 million enabled the College to expand the lab by an additional 3000 square feet, further enhancing the students' abilities to compete for future careers in manufacturing-related industries. In 2018, Nashua Community College and Community College System of New Hampshire leadership announced that the main building will be renamed "Bernie Streeter Hall" in honor of former Executive Councilor and Mayor of Nashua, Bernie Streeter.

Throughout its history, Nashua Community College has continually assessed its academic programs and instructional facilities in order to achieve its mission of

“providing quality, academically rigorous, higher-education programs focused on the diverse needs of students and the community.”

## Campus Setting

Nashua Community College is a 66-acre suburban campus on the northwest side of the City of Nashua. The campus is bordered by Amherst Street, also known as 101A, and Thornton Road. Campus buildings comprise a single structure that hosts general and program-specific classrooms and laboratories, student support services, the Wellness Center, the Walter R. Peterson Library, the Judd Gregg Hall Auditorium, administrative and faculty offices, cafeteria, the bookstore, and more. Spaces for more than 600 vehicles offer convenient, free parking including designated spaces for people with disabilities. The College is located on the city bus line and students can ride the city bus for free by presenting their Student ID.

## Regional Accreditation

Nashua Community College is accredited by the New England Commission of Higher Education (formerly the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges, Inc.).

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

Accreditation by the Commission is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

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

New England Commission of Higher Education | 3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514 | 781-425-7785 | info@neche.org

## Specialized Accreditations

**Automotive Technology and Honda Automotive Technology** – The programs are certified by the ASE Education Foundation and the instructors are certified by the National Institute for Automotive Service Excellence (ASE) Certifications, 101 Blue Seal Drive, Suite 100, Leesburg, VA 20175. **Aviation Technology Program** – FAA Approved ( FAA Certificate Number NSUT025K )

**Business Administration Programs** including Accounting, Management, Marketing, and Small Business Entrepreneurship are accredited by the Accreditation Council for Business Schools & Programs (ACBSP), 11520 West 119th Street, Overland Park, KS 66213

**Collision Repair Technology** – This programs meets the requirements for Master collision accreditation in the areas of Damage Analysis/Estimating/Customer Service, Painting & Refinishing, Non-Structural Analysis/Damage Repair, Structural Analysis/Damage Repair, and Mechanical and Electrical Components – the highest level of program accreditation recognized by the National Institute for Automotive Service Excellence (ASE) 1503 Edwards Ferry Rd., NE, Suite 401, Leesburg, VA 20176

**Electronic Engineering Technology** – Accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

**Nursing** – The Associate Degree Nursing Program at Nashua Community College meets the state education requirements for a Registered Nurse license in the states of New Hampshire and Massachusetts. Nashua Community College has not determined if the associate degree nursing program at Nashua Community College meets the state education requirements in any other state, any U.S. Territory, or the District of Columbia. Please contact the state regulatory agency for nursing in any other state for which this information is needed.

The Associate Degree Nursing Program is approved by the New Hampshire Board of Nursing (NHBN). Upon satisfactory completion of the program, the graduate is eligible to apply to the New Hampshire Board of Nursing (NHBN) and Pearson VUE NCLEX Candidate Services for the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The New Hampshire Board of Nursing’s licensing regulations may restrict candidates who have been involved in civil or criminal legal proceedings. Questions about licensing restrictions should be addressed to the:

New Hampshire Board of Nursing  
121 South Fruit Street, Concord, NH 03301

The associate degree nursing program at Nashua Community College located in Nashua, NH is accredited by the Accreditation Commission for Education in Nursing (ACEN);  
3390 PEACHTREE RD NE SUITE 1400  
ATLANTA, GA 30326  
P. 404.975.5000  
F. 404.975.5020  
Website: <https://www.acenursing.org>

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate degree nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at: <http://www.acenursing.com/accreditedprograms/programsearch.htm>

## Notice of Nondiscrimination

The Community College System of NH does not discriminate in the administration of its admissions and educational programs, activities, or employment practices on the basis of race, creed, color, religion, ancestry or national origin, age, sex, sexual orientation, gender identity and expression, physical or mental disability, genetic information, or law enforcement, military, veteran, or marital status. This statement is a reflection of the mission of the Community College System of NH and refers to, but is not limited to, the provisions of the following laws:

- Title VI and VII of the Civil Rights Act of 1964, as amended
- The Age Discrimination in Employment Act of 1967 (ADEA)
- Title IX of the Education Amendment of 1972
- Section 504 of the Rehabilitation Act of 1973
- The Americans with Disabilities Act of 1990 (ADA)
- Section 402 of the Vietnam Era Veteran's Readjustment Assistance Act of 1974
- NH Law Against Discrimination (RSA 354-A)
- NH Law RSA 188-F:3-a.
- Genetic Information Nondiscrimination Act of 2008

Inquiries regarding discrimination may be directed to Sara A. Sawyer, Director of Human Resources for the Community College System of NH, 26 College Drive, Concord, NH 03301, 603-230-3503. Inquiries may also be directed to the NH Commission for Human Rights, 2 Industrial Park Drive, Concord, NH 03301, 603-271-2767, FAX: 603-271-6339; and/or the Equal Employment Opportunity Commission, JFK Federal Building, 475 Government Center, Boston, MA, 02203, 617-565-3200 or 1-800-669-4000, FAX: 617-565-3196, TTY: 617-565-3204 or 1-800-669-6820.

The NCC Equity Committee is designated to coordinate compliance with the Non-Discrimination Policy and handles all concerns of discrimination that occur on campus that are not covered under Title IX.

The following persons have been designated to handle inquiries regarding the Non-Discrimination Policy:

Kyle Metcalf,  
Chairperson NCC Equity Committee  
Nashua Community College,  
505 Amherst St. Nashua, NH 03063  
NCCHREC@ccsnh.edu | (603) 897-9988

Lizbeth Gonzalez  
Title IX Coordinator  
Nashua Community College,  
505 Amherst St. Nashua, NH 03063  
gonzalez@ccsnh.edu | (603) 578-8928

Catherine Barry  
NCC Human Resources Director  
Nashua Community College,  
505 Amherst St. Nashua, NH 03063  
cbarry@ccsnh.edu | (603) 578-8900 ext. 1766

Jodi Quinn  
Section 504/ADA Coordinator  
Nashua Community College,  
505 Amherst St. Nashua, NH 03063  
jqinn@ccsnh.edu | (603) 578-8996

Inquiries may also be directed to:

Office for Civil Rights, Boston Office  
US Department of Education  
8th Floor  
5 Post Office Square Boston, MA 02109-3921  
OCR.Boston@ed.gov | (617) 289-0111  
TTY 1-800-877-8339 | FAX (617) 289-0150

## NCC Equity & Grievance Policy Human Rights/Equity Committee Reporting Procedures

The Nashua Community College Human Rights/Equity Committee (HREC) is sensitive to the threat and/or embarrassment an individual may experience in coming forward with a complaint regarding discriminatory behavior. The reporting procedures outlined below are designed to provide a safe, confidential, and supportive environment in which an individual may discuss his/her concerns. This committee has been put in place for use by students, faculty, staff and administration.

Complaints of discrimination, or of retaliation for making such complaints, may be reported directly to NCC's Human Rights/Equity Committee Chairperson at



NCCHREC@ccsnh.edu. Complaints may also be reported to any member of the HREC or NCC's faculty, staff, or administration, who will then refer the complaint(s) to the Committee Chairperson. Each reported complaint will be followed up by the Committee Chairperson or designee in a timely manner.

Any NCC student or employee who has observed or is aware of discriminatory behavior and/or retaliation for reporting said discriminatory behavior should report this to the Human Rights/Equity Committee Chairperson or other HREC representative.

No one shall be required to file a complaint with an individual who is hostile to him/her and/or who engages in, or has been alleged to have engaged, in conduct which could be considered discriminatory.

## Initial Reporting

The individual with the complaint is encouraged to contact NCC's Human Rights/Equity Chairperson at NCCHREC@ccsnh.edu to arrange for a meeting. This communication and meeting will be confidential and considered an informal review or discussion of the incident. An attempt to resolve the alleged complaint within ten (10) working days will be initiated by the Committee Chairperson. If a resolution cannot be reached through these informal means, a formal investigation will be launched, with the permission and written request of the complainant. Every attempt will be made to maintain the anonymity of the individuals involved, and each complaint will be handled as confidentially and expeditiously as possible.

## Formal Investigations

Formal reporting procedures must be initiated within one year of the alleged violation. Investigations shall be conducted with particular care to preserve the confidentiality of all persons involved. Only those who have an immediate need to know (including, but not necessarily limited to, the investigator(s), the grievant(s), the respondent(s), and College President) shall be provided with the identity of the grievant, the respondent, and the allegations.

All involved persons shall be afforded the opportunity to submit information relevant to a complaint. All parties contacted in the course of an investigation shall be formally advised of the necessity of confidentiality and that any breach of confidentiality shall be treated as misconduct subject to disciplinary action.

The investigation will be conducted within thirty (30) calendar days of receipt of a written complaint. If additional time is required to ensure a thorough investigation, this time may be extended. Upon

completion of the investigation, a written report will be submitted to the College President, and will be disclosed to the grievant and respondent.

If the investigators have determined that the complaint was proven valid by a preponderance of the evidence, the investigators' report to 95 the College President shall be accompanied by a recommendation for corrective and/or disciplinary action determined according to the totality of the circumstances uncovered during the investigation. In making a recommendation for corrective and/or disciplinary action, the investigators may consider (but not limit themselves to) the following factors:

- the severity of the offense
- the frequency and duration of the prohibited conduct
- the extent to which the misconduct, however minor, serves to create an intimidating campus environment for the grievant, or otherwise increases the difficulties of education or job performance for the grievant.

The College President will take the report and its recommendations under advisement, and make a decision regarding any corrective and/or disciplinary action that may be taken. The time between submission of the report to the College President and the commencement of corrective and/or disciplinary action shall be no longer than 21 calendar days. The College President will provide the Human Rights/Equity Chairperson with written documentation of the decision regarding corrective and/or disciplinary action at the time of or prior to the commencement of disciplinary action. Both the grievant and the respondent will be informed of the College President's decision.

## Title IX Policy and Sexual Harassment Formal Grievance Procedures

CCSNH and its Colleges, including Nashua Community College, are committed to creating and maintaining a positive and productive learning environment. In furtherance of this objective, CCSNH prohibits discrimination in the administration of its education programs and activities based on sex including conduct that constitutes sexual harassment. CCSNH also prohibits retaliation against anyone who is involved in the making or reporting of a complaint or investigation or hearing of a formal complaint of sexual harassment. For more information, please refer to Title IX Policy and Sexual Harassment Formal Grievance Procedures on NCC's website at <https://www.nashuacc.edu/about/campus-safety-and-security/sexual-misconduct-title-ix-resources>.

## Admissions

Admission to Nashua Community College is open to all applicants who are qualified according to the admissions standards of respective programs, and applicants will not be barred from admission because of race, color, religion, national or ethnic origin, age, sex, sexual orientation, marital status, disability, gender identity or expression, genetic information, or veteran status. First priority for admission will be given to New Hampshire residents, second priority will be given to students qualifying under the New England Regional Student Program (NERSP) and third priority will be given to students not qualifying under the New England Regional Student Program or those not domiciled in the state of New Hampshire. However, in highly competitive programs with limited enrollment, the Admissions Office, while working as much as possible within the above parameters, may exercise discretion in admitting those applicants who best fit the needs and expectations of the department, the College and the local community.

In an effort to assist students in reaching their educational goals, NCC has partnered with the Adult Learning Center (ALC) to offer the preparatory coursework not offered by the College through a College Transitions Program at NCC. Students whose college placement test results indicate enrollment in these preparatory courses is necessary will be referred to the College Transitions Coordinator.

The facilities and services of the College will be available to all enrolled students, day and evening (except when restricted by judicial action).

## Admissions Procedures

Applications for admission can be completed online, downloaded as a PDF from our website or obtained from the Admissions Office. The application can be mailed to: Admissions Office, Nashua Community College, 505 Amherst Street, Nashua, NH 03063.

Once applications are received, the applicant will be informed of any additional information or procedures necessary for acceptance to Nashua Community College. Some programs will require additional items such as letters of reference, driving records or an entrance exam. Please see program descriptions for details. It is the responsibility of the applicant to ensure that all documents requested by the College are received. All documents submitted to the College become the property of NCC and will not be returned or sent to other organizations.

## General Admissions Requirements

1. File a Nashua Community College Application for Admission. Students need to reapply after non-attendance to start in a new academic year. If reapplication is necessary, the applicant must submit a new application.
2. Present evidence of graduation from an approved high school (transcript with date of graduation or high school diploma) or possess a General Equivalency Diploma (GED), High School Equivalency Test (HiSET) or satisfactory equivalent. Transcripts and any satisfactory equivalents must be submitted in a sealed envelope.
3. The ACCUPLACER college placement test is required for all associate degree and certificate programs that require math and/or English. If you have earned college credits, taken AP courses, CLEP tests in math and/or English or scored high enough on your SAT's, the ACCUPLACER test may not be required (see College Placement Test section). Inquire with an Enrollment Specialist to be certain you don't need to take the ACCUPLACER test.
4. Transfer students may submit official transcripts of all previous college work. Courses successfully completed prior to admission will be considered for transfer.

Nashua Community College encourages students to apply for Federal Student Aid by completing the Free Application for Federal Student Aid (FAFSA) online at [fafsa.gov](http://fafsa.gov). NCC school code is 009236. See Financial Aid section for additional information.

## Homeschooled Students

Nashua Community College encourages applications from students who are homeschooled. While the nature of home schooling is inherently unique to each student, the College requires appropriate documentation to determine admission. Applicants are expected to meet the same general and specific admission requirements (or their equivalent) as other applicants and to document the academic work they have accomplished. Documents to be submitted may include one of the following:

1. A letter or other documentation from the student's local school district stating the student has completed a home school program at the high school level.
2. A list of courses completed and grades earned.
3. GED or other testing, if applicable.
4. A letter or other appropriate record indicating the student has completed a home school program in accordance with their State regulations.

## International Students: Application Material Required

In addition to the admissions requirements, international students must submit the following:

1. A \$100 non-refundable International Admissions fee.
2. Official English translation of all secondary and postsecondary academic records.
3. If your native language is not English, you must take the Test of English as a Foreign Language (TOEFL) exam and earn a score of 500 or higher; a score of 173 or higher on the computer-based test; or a score of 61 or higher on the internet-based TOEFL. Please visit the Education Testing Service website. For inquiries, contact TOEFL Services at Education Testing Service website for more information on the exam and where the TOEFL exam is given in your country. For inquiries, contact TOEFL Services at Education Testing Service (ETS) by phone at 877.863.3546 or by mail at ETS Ewing Office; 225 Phillips Boulevard Ewing, NJ 08618. If you are currently in the United States seeking a student visa, NCC may waive the TOEFL requirement and administer the Accuplacer Placement Test.
4. An Affidavit of Financial Support form from the person(s) who will be financially responsible for the student. Forms and instructions can be printed from our website. Please follow instructions for the form and state all funds in US dollars. All supporting documentation must be included.
5. Copies of current passport and immigration documents including current visa and Duration of Status (D/S) card.

Dollar amounts promised by the sponsor and available in the sponsor's bank account should be sufficient to cover a minimum of two years expenses (out-of-state tuition, fees, room and board, books, and miscellaneous expenses). Before a Certificate of Eligibility for an F-1 visa (I-20) can be issued, applicants must have submitted all documents required and be accepted into a full-time program (12 credits or more per semester).

Please note: On-campus housing is not available.

## Early College

Early College is a dual enrollment program where New Hampshire high school juniors and seniors may take college courses while still in high school. This is an opportunity take some "General Education" courses that can be applied towards a college degree later on, and also earn credit towards your high school diploma at the same time.

High School students must be (a) enrolled in an approved NH high school or an approved NH home school program, or be a resident of New Hampshire and enrolled in an approved high school, (b) be a high school junior or senior. Homeschool students age 16 or older are eligible, and (c) have not earned a high school diploma prior to class completion date. Exceptions to these requirements require approval from the Dual Enrollment Coordinator and the Department Chair or his/her designee.

Early College students may enroll up to two (2) 100-level courses, each with a maximum of four (4) credits each from the list of approved courses available to high school students during the Fall, Spring, and Summer semesters. Early College students may not enroll in any "intensive" semesters (two, six, or eight-week semesters) or in any course marked as Capstone or Internship. Aviation Technology (AVTN) and Nursing (NURS) courses are not open to Early College students. Enrollment is on a space available basis and there may be times NCC needs to remove an early college student from the course based on the number of seats needed for matriculated students.

Early College students pay 50 percent of the cost of the NCC tuition with no added fees until high school graduation. There is currently a scholarship from the New Hampshire Governor's Office that covers the cost of tuition for STEM/CTE-approved courses. A list of approved courses can be obtained from the Dual Enrollment Coordinator. High school students have the opportunity to start college core curriculum, start courses in a major, and request dual credit with their high school. Early College students are welcomed into the NCC community and the student body as a whole, offering the high school student a full and authentic college experience. Early College students are non-matriculated and therefore ineligible for federal student financial aid or to apply to a degree program or graduate from any degree or certificate program. The reduced tuition for high school students offers an incentive to start college in high school for a fraction of the tuition compared with post high school graduation.

Early College is designed for juniors and seniors. If an Early College student would like to utilize classroom accommodations (IEP or 504), they need to complete NCC's Application for Reasonable Accommodations to obtain a college level plan from NCC..Contact the Dual Enrollment Coordinator at 578-6915 for further information

## Residency Status

A student will be classified as in-state or out-of-state for tuition purposes at the time of admission. The

Admissions Office will make the decision based on information furnished by the student's application and other relevant and available information. To qualify for in-state tuition, a student must have been domiciled in New Hampshire continuously up to 12 months immediately prior to registration for the term for which in-state status is claimed. Students living within a 50-mile radius of the NCC campus also qualify for in-state tuition.

A member of the active duty U.S. Armed Forces stationed in this state under military orders, or stationed in a contiguous state but temporarily living in New Hampshire, shall be entitled to classification for himself/herself, spouse and dependent children as "in-state" for tuition purposes so long as said orders remain in effect and residence in this state is continued. Also, military personnel who are residents of another state but choose this state as their residence within 90 days of being discharged from the military will be considered residents and charged in-state tuition. Refer to the "Veterans' Assistance" Section in this catalog for more information. Residents of the other five New England states are eligible to pay a lower, regional tuition (instead of the out-of-state) when enrolled in associate degree programs approved under the New England Regional Student Program (NERSP). The College allows additional eligibility to include all associate degree and certificate programs.

International Students are not eligible for in-state or New England Regional tuition rates for day courses at any time while enrolled at NCC.

Any student who has, on his/her first admission to the College, been classified as New England Regional or out-of-state for tuition purposes, may apply to the Admissions Office for a change of status on or before September 1 for the subsequent fall semester, on or before January 1 for the subsequent spring semester, and on or before June 1 for the subsequent summer term.

Any student who is aggrieved by the decision of the Admissions Office may appeal in writing to the Vice President of Student and Community Affairs. In all cases of application for in-state status for tuition purposes, the burden of proof shall be on the applicant.

## College Placement Test

The college placement test utilized is Accuplacer. Accuplacer is a set of computerized tests that determines a student's skill level in math and/or English. The results of the assessment enable us to provide students with crucial early guidance in course placement/selection. Students can schedule a remote or

in-person Accuplacer assessment and access the practice materials online. There is no fee for students taking the Accuplacer Assessment test for the first time. If a student retakes the Accuplacer Assessment test, there will be a \$20 fee which must be paid in the NCC Business Office prior to testing.

A math SAT score of 530 or higher is required for placement in college level math (a score of 460-529 can be used for placement in college level math with a co-requisite workshop) and a Critical Reading and Writing score of 470 or higher is required for placement in college-level English (a score of 401-469 can be used for placement in college level English with a co-requisite workshop). See Admissions for course placement information.

## Academic Amnesty

A student who has previously attended NCC and is admitted at a later time, may be eligible for Academic Amnesty, which provides for the following:

1. All grades taken during the student's previous time at the College will no longer be used to calculate the student's new cumulative GPA. However, grades C- and above taken during the student's previous time at the Institute/College will be used to meet course requirements (where appropriate), subject to the approval of the Vice President of Academic Affairs.
2. Even though previous grades will not be used to calculate the new cumulative GPA, all previous grades will remain on the student's transcript.

In order to be eligible for Academic Amnesty, a student must meet all of the following conditions:

1. The student has not taken any courses at NCC for a period of at least three years from the last semester of attendance.
2. The student applies for Academic Amnesty before the start of his/her second semester after readmission.
3. The student has never before received Academic Amnesty.
4. The student achieved a cumulative GPA below 1.7 during previous attendance.

Please be aware that while you have been granted academic amnesty your previous grades are not used to calculate your new grade point average, they will however be used to evaluate "satisfactory academic progress" for financial aid purposes in accordance with Federal Financial Aid Regulations.

## Insurance

We encourage students needing health insurance to review the Companies licensed to sell health insurance in NH at <http://www.nh.gov/insurance/consumers/healthinscos.htm> to identify a provider that best meets their needs. The list includes companies that could provide either individual health insurance or short term (six months) health insurance. Please note that NCC is providing this link as a resource to our students and it should not be viewed as an endorsement of any of the companies or their plans. To obtain government information on health insurance or to apply visit <https://www.healthcare.gov/get-coverage/>.

Proof of health insurance is required for students enrolled in the Nursing Program and those who participate in athletic activities. Some additional College related activities may require proof of health insurance, which will be requested as needed.

### Health insurance must meet the following criteria:

- United States based insurance plan;
- Provides the 10 essential health benefits specified in the Affordable Care Act (<https://www.healthcare.gov/glossary/essential-health-benefits/>);
- Includes access to hospital and physician providers in the area where the student is attending a New Hampshire community college;
- Will remain in effect for the entire semester(s) (except for termination due to the attainment of a maximum age, or other situation resulting in a loss of plan eligibility),

### The following plans DO NOT meet the criteria:

- An accident-only policy
- A short-term limited duration health plan that does not meet the requirements of the Affordable Care Act (ACA)
- A ministry sharing plan, even if it is recognized by the ACA
- Any other health benefits program (e.g., a community care program) that is not recognized by the State of NH as being health insurance (or is not a health benefits plan governed by the Employee Retirement Income Security Act of 1974) and does not meet all of the requirements specified above.

## Tuition and Fees for 2022-2023

### Tuition Costs

TUITION	Cost
Student Type	
New Hampshire Resident	\$215 / credit
New England Regional Student (CT, MA, ME, RI, VT)	\$323 / credit
Out of State	\$490 / credit

NERSP Policy: All matriculated New England students will be charged the New England Regional Student tuition rate for day courses. Students living within a 50 mile radius of NCC will be charged in-state tuition rates for day courses. Out-of-state students will pay out-of-state rates for day courses. ALL students will be charged in-state tuition rates for evening, weekend, and online courses.

FEES (Required)	Cost
Item	
Academic Instruction Fee*	\$110 / lab hour
Comprehensive Fee**	\$23 / credit

### Individual course fees for the following programs:

Automotive Technology, Aviation Technology, Collision Repair Technology, Electronic Engineering, Honda Automotive Technology, Mechanical Design Technology, course Cybersecurity & Networking, Precision Manufacturing	\$50/ course
Culinary Arts - Food Preparation fee	\$200/ course
Nursing Clinical Surcharge	\$500/ semester
Nursing ATI Live Review NURS125N, NURS220N, NURS140N, NURS240N	\$615/ course

\*An Academic Instruction Fee will be charged for all Laboratory or other similar experiences. This fee will be calculated by subtracting the number of lecture hours from the number of credit hours and multiplying the remainder by \$110 for each course. This will be added to the normal tuition charge for that course

Example: BIOL215N Microbiology Expenses for 2020-2021

CL LAB CR  
3 3 4

$$4 - 3 = 1 \times 110 = \$110$$

\*\*Supports Student Activities and the Wellness Center.

OTHER FEES	Cost
Item	
ACCUPLACER Placement Test Re-take Fee	\$20
CLEP Exam	\$25
Diploma Replacement	\$20

International Admission Fee	\$100
Nursing Liability Insurance	\$20
Nursing Non-refundable Tuition Deposit***	\$100
Parking Fine	\$5-\$25
Payment Plan Service Fee	\$30
Returned Check Fee	\$35
Smoking Fine	\$25-\$50
Student ID Replacement	\$10

\*\*\*A non-refundable tuition deposit of \$100 will be required from all students matriculated in Nursing. A matriculated student is defined as one who has been formally accepted into a degree or certificate program. The President or his/her designee reserves the right to waive the fee in circumstances where the collection of the deposit is not feasible (e.g., late admits, financial hardship, obstacle to disbursing financial aid). The deposit will be applied to the tuition for the semester immediately following the student's matriculation and will not be refunded even if the student withdraws during the designated full refund period or if the student fails to attend. The tuition deposit is not transferable to another semester unless an exception is made by the President or his/her designee.

Some programs at NCC require the use of equipment and supplies which must be purchased by the student. These materials are necessary for career entry upon graduation and are important for the student to receive a high quality, hands on college education.

For information regarding estimated costs and requirements, please refer to the desired degree program within this publication.

## Nursing Clinical Fee

All nursing students taking clinical courses will be charged a nursing clinical surcharge of \$500 per semester. This surcharge is designed to assist in covering the increased expenses associated with clinical classes. This fee is in addition to the academic instruction fee and comprehensive fee.

## Tuition

Tuition is due two weeks prior to the start of the semester and can be paid in the Business Office, by mail, or online by accessing QuickPay through the Student Information System (SIS) at <https://www.nashuacc.edu>.

When tuition is not fully covered by financial aid and/or a payment plan, it is the student's responsibility to pay the difference two weeks prior to the start of classes. A \$50 late fee will be charged to students who do not comply.

Students who have not accepted their financial aid, established a payment plan, or paid in full two weeks prior to the start of classes could be in jeopardy of being deregistered from classes.

Students will not receive bills in the mail; all billing statements will be viewable in the Student Information System (SIS). Students will receive an e-mail notification (sent to their @students.ccsnh.edu e-mail address) advising them that their current billing statement is available for viewing on the SIS. The statements can be printed or downloaded to PDF format. After viewing their statements online; students may choose to pay online, via phone 603.578.8902 or by visiting the Business Office. If the student would like someone else to receive or pay the bill, the student must designate this person as an "Authorized Payer".

## Monthly Payment Plan

To assist students with tuition charges, the College offers an interest-free monthly payment plan administered by Nelnet Business Solutions. The plan allows students to fulfill their financial obligation to the College by automatic electronic processing of installment payments. There is a per semester enrollment fee for this program. More information can be obtained from the Business Office or on our website by accessing the "Pay for College" tab.

## Delinquent Account Collection Process

The following collection clause will be listed on all forms requiring the student's signature:

"I agree that by registering for courses within the Community College System of New Hampshire (CCSNH), I am financially obligated for ALL costs related to the registered course(s). Upon a drop or withdrawal, I agree that I will be responsible for all charges as noted in the student catalog and handbook. I further understand that if I do not make payment in full, my account may be reported to the credit bureau and/or turned over to an outside collection agency. I also agree to pay for the fees of any collection agency, which may be based on a percentage of the debt up to a maximum of 35%, and all additional costs and expenses, including any protested check fees, court filing costs and reasonable attorney's fees, which will add significant costs to my account balance."

## Refund Policy

Students who officially withdraw from the College or an individual course by the end of the fourteenth (14th) calendar day of the semester will receive a 100% refund of tuition, less non-refundable fees. Classes that meet in

a shorter format than the traditional semester will have 7 calendar days from the designated start of the alternative semester to withdraw for a full refund. If the seventh (7th) or fourteenth (14th) calendar day falls on a weekend or holiday, the drop refund date will be the first business day following the holiday or weekend.

Exception: Students in courses that meet for two weeks or fewer must drop by the end of the first day of the class in order to get a 100% refund. All refunds require that students complete an official withdrawal form.

Students registered for non-credit workshops must withdraw in writing at least three days prior to the first workshop session to receive a full refund of tuition and fees. In extenuating circumstances, the President (or designee) is authorized to offer alternative compensation in the form of tuition credits to students on a case-by-case basis. Tuition credit on a student account must be used within one calendar year from the date of authorization.

In accordance with Federal regulations, refunds for an amount less than \$1 (\$0.99 or less) will be forfeited.

## Employee Reimbursement

Where the employer, the Veterans Administration, or other agency is guaranteeing both tuition and fees, such guarantee must be in writing and signed by an authorized representative of the company or agency.

## Financial Aid

**DISCLAIMER:** All financial aid information and policies are subject to change at any time. Please review your rights and responsibilities as a financial aid recipient in the current year CCSNH Student Financial Aid Handbook at (<https://www.ccsnh.edu/wp-content/uploads/2020/09/Final-CCSNH-2020-2021-Student-Financial-Aid-Handbook.pdf>)

## What Is Financial Aid?

Financial aid consists of grants, scholarships, loans, and work study and can be from the federal government, the state government, the college, or a nonprofit or private organization. Financial aid assists students and their families in paying for college expenses. Such expenses may be direct, such as those directly charged to your college student account (ie: tuition and fees), and indirect, which include but are not limited to books, supplies, and transportation to/from college. A student's financial aid may include a combination of various types of aid.

## Who Is Eligible for Financial Aid?

Most students are eligible to receive financial aid from the federal government to help pay for college or career school. Your age, race, or field of study won't affect your eligibility for federal student aid. While your income is taken into consideration, it does not automatically prevent you from getting federal student aid.

### To receive federal student aid, you'll need to...

1. Qualify to obtain a college or career school education, either by having a high school diploma or equivalent, or by completing a high school education in a homeschool setting approved under state law.
2. Be enrolled or accepted for enrollment as a regular student in an eligible degree or certificate program
3. Have a valid Social Security number unless you are from the Republic of the Marshall Islands, Federated States of Micronesia, or the Republic of Palau.

### In addition you must...

Be a U.S. CITIZEN or U.S. NATIONAL

You are a U.S. citizen if you were born in the United States or certain U.S. territories, if you were born abroad to parents who are U.S. citizens, or if you have obtained citizenship status through naturalization. If you were born in American Samoa or Swains Island, then you are a U.S. national.

OR

Have a GREEN CARD

You are eligible if you have a Form I-551, I-151, or I-551C, also known as a green card, showing you are a U.S. permanent resident

OR

Have an ARRIVAL-DEPARTURE RECORD

Your Arrival-Departure Record (I-94) from U.S. Citizenship and Immigration Services must show one of the following:

- Refugee
- Asylum Granted
- Cuban-Haitian Entrant (Status Pending)
- Conditional Entrant (valid only if issued before April 1, 1980)
- Parolee

OR

## Have BATTERED IMMIGRANT STATUS

You are designated as a “battered immigrant-qualified alien” if you are a victim of abuse by your citizen or permanent resident spouse, or you are the child of a person designated as such under the Violence Against Women Act.

OR

Have a T-VISA

4. You are eligible if you have a T-visa or a parent with a T-1 visa.

Sign certifying statements on the Free Application for Federal Student Aid (FAFSA®) form stating that

- you are not in default on a federal student loan and do not owe a refund on a federal grant and
- you will use federal student aid only for educational purposes.

5. Maintain satisfactory academic progress in college or career school.

In addition:

- Students must be attending a minimum of six (6) eligible credits for federal loans (Audited courses, Transfer Credits, Credit by Exam, Experiential Learning Credits, and some repeat courses do not count towards eligibility);
- Students with prior baccalaureates are not eligible to receive Pell or SEOG grants.
- Federal loans must be prorated for certificate programs consisting of 16 to 23 credits.
- Financial aid must be prorated for programs that are less than 30 weeks in any academic year.
- A Consortium Agreement is required when a student is enrolled at more than one CCSNH College and wishes to use financial aid at both colleges.
- Pell eligible students must be registered for any course(s) that does not span the entire length of the semester prior to the Pell recalculation date within that semester.

## How and When to Apply for Federal Student Aid

Students must complete the FAFSA (Free Application for Federal Student Aid) at <https://studentaid.gov/h/apply-for-aid/fafsa> to apply for federal student aid. The FAFSA is available October 1st of each year and must be completed annually for each year the student will be attending college. Students attending Summer 2022, Fall 2022, and Spring 2023 must complete the 2022-2023 FAFSA. Students must also complete the appropriate

financial aid forms, as requested by the NCC Financial Aid Office. Some aid is limited and is awarded on a first-come, first-served basis.

To help you in the application process please see the Financial Aid Application Checklist below:

- Complete the FAFSA and submit all verification documentation to NCC Financial Aid Office by the NCC Priority Deadline (see the NCC Priority Deadlines below) (NCC school code: 009236).
- You can still apply for financial aid after the NCC Priority Deadline but NCC cannot guarantee that your financial aid will be available by payment deadline.
- Review the Student Aid Report (SAR) sent to you by the Department of Education to determine if additional steps are required and to confirm your FAFSA is complete and successfully submitted.
- Make sure you have completed the NCC Admissions process and are accepted into a financial aid eligible program. (NCC Admissions Office: [nashua@ccsnh.edu](mailto:nashua@ccsnh.edu) or 578.8908). NCC will receive your FAFSA 7 to 10 days after it has been processed and will contact you via email.
- Respond to all correspondence from NCC Financial Aid Office and provide all information requested.
- Receive a Financial Aid Offer listing the aid you are eligible to receive.

### If you accept Direct Loans, then you must:

- Be registered for six (6) eligible credits minimum and Complete Loan Entrance Counseling and Master Promissory Note at <https://studentaid.gov/h/complete-aid-process>

Accept your aid online through the Student Information System (SIS). Accepting your aid and completing the loan requirements gives you a payment deferment of the accepted amounts.

We strongly suggest you register for classes before accepting aid so you will be able to accurately determine how much aid you need. Class registration can be completed with your advisor.

## NCC Financial Aid Priority Deadlines

Summer 2022 4/24/22  
Fall 2022 7/18/22  
Spring 2022 12/8/22

Tuition payment deadline is two (2) weeks before the start of each semester. If the financial aid process is not complete at that time (complete means aid has been



accepted through the SIS and, if accepting loans, the loan requirements have been completed) you will need to make payment arrangements with the Business Office for any classes for which you are registered. Please be aware that the financial aid process can take up to 4 to 6 weeks and an incomplete financial aid process can prevent some/all disbursement.

## Determining Your Eligibility

The following equation is used in determining your financial aid eligibility (an explanation of terms follows):

Cost of Attendance (COA) – Expected Family Contribution (EFC) = Financial Need

The Cost of Attendance (COA) is an estimate of the cost for you to attend NCC, including tuition and fees, room and board, books and supplies, personal/miscellaneous expenses, and transportation. The following is a sample COA constructed for a 9 month academic year with full time attendance (24 credit hours for the year) for a student living off campus. Although this is a sample COA, and as such will not be the final COA used to offer student aid, students can use these figures as a guide for planning the academic year. For more information regarding COA, contact the Financial Aid Office

Tuition (24 credit hours)	\$ 5,160
Room and Board	\$ 15,238
Fees	\$ 992
Books and Supplies	\$ 1,400
Transportation	\$ 2,578
Personal Expenses	\$ 1,800
Total Sample Cost of Attendance	\$ 27,168

Note: A student's COA must be reviewed each semester. Student enrollment level is defined according to the number of credits for which the student is enrolled:

- Full-time: 12 or more credits in a semester
- 3/4 time: 9 - 11 credits in a semester
- 1/2 time: 6 - 8 credits in a semester
- Less than 1/2 time: Less than 6 credits in a semester\*

\*However, if a student is enrolled for less than half time in a semester, the COA must be adjusted for that semester to exclude Personal Expenses and Room and Board.

Your Expected Family Contribution (EFC) reflects your (and, if you are categorized as a dependent student, your family's) ability to contribute to the Cost of Attendance. The calculations used to determine the EFC are based on the United States Department of Education's mandated formula known as the federal methodology. The Department of Education applies the formula to the

information you have provided on the FAFSA application and computes a figure for your Expected Family Contribution.

Your Financial Need and the availability of funds determines your financial aid offer.

## Offering of Aid

### Verification

All students are subject to Verification. Students whose applications for federal student aid (FAFSA) have been selected for verification will be required to submit documentation necessary to complete the verification process. Students will be notified by the college financial aid office as to what documentation is required.

Applicants should be aware that, until all required documentation has been received and reviewed by the Financial Aid Office, no federal student aid will be offered and/or disbursed. If documentation verifies the information submitted on the original application, financial aid will be offered and disbursed. If the documentation indicates the need for corrections, the corrections will be submitted electronically to the Department of Education by the Financial Aid Office. The student will receive a revised Student Aid Report from the Department of Education.

## Available Aid

### Pell Grant

All students are first considered for the Federal Pell Grant. The Federal Pell Grant Program provides need-based grants to low-income students and are offered only to undergraduate students who have not earned a bachelor's or a professional degree. A Federal Pell Grant, unlike a loan, does not have to be repaid. The amounts can change yearly and the amount a student receives depends on the amount set by Congress for that year; student's expected family contribution (EFC); the student's enrollment level; and whether the student attends for a full academic year or less. In certain situations, an eligible student can receive up to a 150% of his/her scheduled Pell Grant for an aid year. NCC credits the Federal Pell Grant funds to the student's school account at least once per eligible semester. Students may not receive Federal Pell Grant funds from more than one school at a time. Students can receive the Federal Pell Grant for no more than 12 full-time semesters or the equivalent.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

FSEOG is a grant for undergraduate students with exceptional financial need and does not need to be repaid. Each participating school receives a set amount of FSEOG funds each year from the U.S. Department of Education. The amounts for 2022-2023 at NCC range from \$250 to \$750. NCC gives priority to students with a zero expected family contribution (EFC) and students must be attending at least six credits. NCC credits the Federal Supplemental Educational Opportunity Grant funds to the student's school account at least once per eligible semester.

## Federal Work Study Program

Federal Work-Study provides part-time jobs for undergraduate full-time or part-time students with financial need, allowing them to earn money to help pay education expenses. The Federal Work-Study program offers funds on a first come, first served basis. On campus jobs are available throughout the campus. Off-campus jobs are available throughout the local Nashua area in non-profit agencies. Students must provide their own transportation. Additional information is available through the Financial Aid Office.

## Vermont and Rhode Island State Grant

The Vermont (<https://www.vsac.org>) and Rhode Island (<https://www.riopc.edu>) State Grants provides grants for their residents attending a college in his/her state or another state. Please see the respective state's website for more specific information on the state grant program.

## State, College, and Nonprofit or Private Student Aid

Please check NCC's financial aid webpage (<https://nashuacc.edu/pay-for-college/financial-aid>) for information about State, College, and Nonprofit or Private Student Aid.

## Direct Loan Program

- The U.S. Department of Education's federal student loan program is the William D. Ford Federal Direct Loan (Direct Loan) Program. Under this program, the U.S. Department of Education is your lender. There are four types of Direct Loans available:

- Direct Subsidized Loans are loans made to eligible undergraduate students who demonstrate financial need to help cover the costs of higher education at a college or career school.
- Direct Unsubsidized Loans are loans made to eligible undergraduate, graduate, and professional students, but eligibility is not based on financial need.

The U.S. Department of Education offers eligible students at participating schools Direct Subsidized Loans and Direct Unsubsidized Loans. Students must be enrolled in a minimum of six (6) eligible credits to be eligible for these programs. The amount a student may borrow may not exceed the cost of attendance minus other assistance (or, for subsidized loans, other assistance plus the expected family contribution or EFC). All students borrowing must complete a Master Promissory Note at <https://studentaid.gov/h/complete-aid-process>. First time borrowers at the College must also complete Loan Entrance Counseling.

## Direct Subsidized and Unsubsidized Annual Loan Limits

Dependent Students (except students whose parents cannot borrow a PLUS loan) who qualify may borrow the following per academic year:

- Freshmen (0-30 credits earned\*) up to \$5,500 of which only \$3,500 can be subsidized; Sophomore (31+ credits earned\*) up to \$6,500 of which only \$4,500 can be subsidized.  
Independent Students and Dependent Students whose parents cannot borrow PLUS who qualify may borrow the following per academic year:
- Freshmen (0-30 credits earned) up to \$9,500 of which only \$3,500 can be subsidized; Sophomore (31+ credits earned) up to \$10,500 of which only \$4,500 can be subsidized.  
\*Grade Level. A student's grade level is determined by the number of credits successfully completed, accepted and recorded by the Registrar's office.

## Direct Subsidized and Unsubsidized Aggregate Loan Limits

There are aggregate loan limits. Students who qualify may borrow the following to complete an undergraduate degree:

- Dependent Students up to \$31,000 of which only \$23,000 can be subsidized

- Independent Students up to \$57,500 of which only \$23,000 can be subsidized
- If the total loan amount you receive over the course of your education reaches the aggregate loan limit, you are not eligible to receive additional loans. However, if you repay some of your loans to bring your outstanding loan debt below the aggregate loan limit, you could then borrow again, up to the amount of your remaining eligibility under the aggregate loan limit. For information on the aggregate loan limits for graduate or professional students, visit <https://studentaid.gov/>.

Alternative/Private Loans are offered by various lenders to assist students and parents in meeting educational expenses. Such funds may assist families that do not qualify for or need to supplement other forms of financial aid. Some information is available on ELMSelect which can be accessed from the NCC financial aid page of the NCC website.

Lender Code of Conduct. Information is available on the Code of Conduct for the Federal Direct Loan and Private Loan Programs <https://www.ccsnh.edu/wp-content/uploads/2020/03/codeofconduct.pdf>

## Professional Judgement for Special Circumstances

The financial aid staff calculates each financial aid offer based on financial need as demonstrated by the FAFSA. The calculation is based on a student's and family's prior prior calendar-year income. Students and families who have experienced significant changes in family structure, size or income should contact the Financial Aid Office to discuss the situation. If a special review is appropriate, the student will be asked to complete a Special Circumstances application, and will be advised what additional documentation is required.

## Consortium Agreements

Colleges within the Community College System of NH (CCSNH) have worked out a Consortium Agreement procedure, whereby students receiving financial aid at their home college may use that aid to take courses at another host college within the CCSNH. A student who wishes to receive financial aid to take a course at a CCSNH college other than the home college is required to complete a Consortium Agreement with the home college Financial Aid Office. Courses taken at a host College must be approved for transfer to the student's home college academic program. Students participating in the Consortium Agreement program give permission for the host college transcript to be presented to the home college Registrar. Courses covered by the Consortium Agreement will be taken into account in

determining Satisfactory Academic Progress for Financial Aid at the home college. Please contact the Financial Aid Office for more information.

## Availability of Financial Aid Funds for Books and Supplies

The Book Advance Program allows financial aid recipients who have financial aid funds remaining after the payment of tuition and fees to use the excess to purchase/rent books and supplies from the NCC Bookstore during the book advance period. The book advance period generally starts two (2) weeks prior to the beginning of the semester. Not all financial aid funds may be available for the Book Advance Program and not all financial aid recipients are eligible. Students must accept the option for the NCC Title IV Authorization Form through the SIS.

## Scholarship Programs

Please review the NCC Scholarship page at (<https://nashuacc.edu/pay-for-college/scholarships-grants>) for the most current scholarship information.

## Return of Title IV Funds

### Return of Title IV Funds

Title IV funds are offered to a student under the assumption that the student will complete all courses he/she is scheduled to attend during the period Title IV aid is offered. A financial aid recipient who does not complete all of the days he/she was scheduled to attend during the payment period may be required to return all or a portion of the federal financial aid received for that semester. A recipient who has had Title IV aid returned may also be required to pay back to the College any balance originally paid by Title IV aid, such as tuition and fees or student refund of Title IV aid.

If a student ceases attendance prior to completing more than 60% of the payment period or period of enrollment, the amount of Title IV grant or loan assistance earned by the student must be determined using a specific formula. This is known as the Return to Title IV Funds calculation. If the amount disbursed to the student is greater than the amount the student earned, the unearned funds must be returned by the College and/or the student to the appropriate program. If the amount disbursed to the student is less than the amount the student earned, and for which the student is otherwise eligible, he or she may be eligible to receive a post-withdrawal disbursement of the earned aid that was not received. The exact amount

to be returned by the College and/or repaid by the student will vary depending on the amount of financial aid earned and the date the student ceases attendance.

The repayment percentage is determined by the number of days remaining in the term from the student's last date of attendance (if known) or the midpoint of the term, whichever is later in the semester. The amount of assistance earned is determined on a prorated basis. For example, if the student completed 30% of the payment period or period of enrollment, he/she would earn 30% of the assistance he/she was originally scheduled to receive. If the student completes more than 60% of the payment period (generally the length of the semester) or period of enrollment (if enrolled in Modules – courses that run less than the full semester), all the assistance that he/she was scheduled to receive for that period is earned. CCSNH college Financial Aid Offices will track enrollment in each module (group of courses in a program that do not span the entire length of the payment period within a term, for example, summer sessions or eight week courses) to determine if a student began enrollment in all scheduled courses. If the student provided written confirmation he/she will be attending a course in a module beginning later in the same payment period or period of enrollment (for nonterm and nonstandard term programs, this must be no later than 45 calendar days after the end of the module the student ceased attending) then this is not considered a withdrawal. If the student does not return, then it is considered a withdrawal and the Return of Title IV Funds calculation requirements apply.

The Registrar's Office is the official authority within the college designated to accept withdrawal notifications. If a student communicates to a staff person in the Registrar's office while that person is acting in an official capacity, that communication in whatever form (verbal or written), is considered official notification. Students are urged to submit a signed withdrawal form and/or Add/Drop form to the Registrar's Office to show their intent to withdraw. The official date of withdrawal will be the date the form is submitted to the Registrar's Office or the student verbally notifies the Registrar's Office.

Students are considered unofficially withdrawn from college when they cease attending classes after the add/drop period and fail to provide official notification of their intent to withdraw. Instructors will enter a grade of AF for these students. Their withdrawal date for R2T4 purposes will be the midpoint of the semester unless a different date of notification is provided by an instructor prior to the end of the semester.

When a student fails to earn at least one grade in a credit course per term, the withdrawal calculation must be performed. A grade of F is considered an earned F. A grade of AF is not considered an earned F.

There are some Title IV funds that students are scheduled to receive that cannot be disbursed once a student withdraws because of other eligibility requirements.

If the student receives excess Title IV program funds, the College must return a portion of the excess equal to the lesser of:

1. The institutional charges multiplied by the unearned percentage of the student's funds, or
2. The entire amount of excess funds.

The College must return this amount even if a credit balance refund has been issued to the student.

If the College is not required to return all of the excess funds, the student must return the remaining amount. Any loan funds to be returned by the student (or student's parent for a PLUS Loan) are to be repaid in accordance with the terms of the promissory note.

Any amount of unearned grant funds that a student must return is called an overpayment. The maximum amount of a grant overpayment that a student must repay is half of the grant funds he/she received or was scheduled to receive. The student must make arrangements with the school or the Department of Education to return the unearned grant funds.

The requirements for the Title IV program funds when a student withdraws are separate from the College refund policy. Therefore, a student may still owe funds to the College to cover unpaid Institutional charges. The College may also charge a student for any Title IV program funds that the school was required to return.

The school will use the federal policy to determine the amount which must be returned by the school and/or the student to Title IV programs. The procedure is:

1. Determine withdrawal date
2. Determine the period of enrollment
3. Determine Amount of Earned Title IV Aid
4. Determine Amount of Unearned Title IV Aid
5. Determine Title IV Aid to be disbursed
6. Determine Title IV Aid Disbursed
7. Determine Title IV Aid to be Returned
8. Calculate the College's Responsibility
9. Determine Amount College Returns by Program
10. Determine Student's Responsibility
11. Determine Amount Student Returns by Program

Students that fall into the Return of Title IV Funds obligation category will be notified with a letter explaining the results of the school's calculation process.

The College will return funds to the appropriate aid programs as prescribed by law and regulation in the following order:

1. Federal Direct Unsubsidized Stafford Loan
2. Federal Direct Subsidized Stafford Loan
3. Federal Direct PLUS Loan
4. Federal Pell Grant
5. Federal Supplemental Education Opportunity Grant (SEOG)
6. Other Title IV Aid Programs
7. Other Federal sources of aid
8. State/Private/College aid

The College must return funds as soon as possible but no later than 45 days from the date the College determined the student withdrew.

If a student owes federal financial aid repayments or Return of Title IV Funds, the student will be denied federal aid eligibility at any institution and will not be able to enroll until full payment arrangements are made.

Satisfactory Academic Progress (SAP) requirements apply to all financial aid recipients regardless of the funding status due to a Return of Title IV Funds calculation. Repayment of part of a student's federal financial aid does not release the student from the SAP requirements.

## Satisfactory Academic Progress Policy

The Financial Aid Office is required by federal regulations to periodically review financial aid recipients to ensure that they are making academic progress towards the completion of their program of study. Satisfactory Academic Progress for financial aid recipients is measured by both qualitative and quantitative standards and is an assessment of a student's cumulative academic record while in attendance at the institution.

Qualitative - Cumulative GPA (CGPA) Component	Must have earned the required CGPA at the published intervals.
Quantitative - Pace (Completion Rate) Component	Pace (Completion Rate) Component Must complete at least 2/3 (67%) of the credits attempted.
Quantitative - Maximum Timeframe Component	May receive financial aid for up to 150% of the number of credits required for successful program completion unless it is mathematically impossible for student to complete the program within this limit.

In general, coursework that is taken while in attendance at the CCSNH institution is considered when reviewing a student's academic record for satisfactory academic

progress. However, there are some exceptions. Please see the section on Treatment of Repeated Courses, Audited Courses, Incompletes, Developmental/Remedial Courses, English for Speakers of Other Language Courses (ESOL), Credits by Examination, Nonpunitive grades, Pass/Fail Grades, Withdrawals.

## Qualitative Standard - Cumulative GPA (CGPA) Component

A student must maintain a minimum cumulative grade point average as noted below in order to be making satisfactory academic progress. A GPA calculator is available at <http://www.ccsnh.edu/academics/gpa-calculator>.

Total Credits Earned	Minimum Cumulative Grade Point Average Required for the Program	
	Certificate/Diploma	Associate Degree
0-13	1.50	1.50
14-27	2.00	1.70
28-40		1.80
41+		2.00

## Quantitative Standard - Pace (Completion Rate Component) and Maximum

### Time Frame Component

The Quantitative Standard of the satisfactory academic policy is comprised of two elements. The first element, maximum time frame, is the time frame by which a student must complete an academic program. The second element, pace, includes determining whether a student is on track to complete the program within the set maximum time frame. Once it has become apparent a student will be unable to complete their academic program within the maximum time frame, either by falling below the pace standard or by having attempted 150% of the credits required to complete their academic program, the student becomes ineligible for Title IV aid.

### Pace (Completion Rate Component)

A student must complete at least 67% of the total credits he/she attempted throughout his/her academic career at the college, rounded to the nearest percent. All attempted credits, including transfer credits, will be included in the quantitative calculation.

For example, a student who has enrolled in 36 credits throughout his or her academic career at the college

must earn credit for at least 24 credits in order to be meeting the requirements of satisfactory academic progress.

## Maximum Time Frame Component

A student may receive federal student aid for any attempted credits towards his or her program of study until it is mathematically impossible for the student to complete the program within 150% of the published length of the student's program of study.

All attempted credits are included in the evaluation including transfer credits.

## Academic Periods Included in the Review

The qualitative and quantitative standards of the Satisfactory Academic Progress policy will be used to review the academic progress for all periods of the student's enrollment. Even periods in which the student did not receive federal student aid will be included in the review. Additionally, periods for which the student was granted academic amnesty will be included in the review.

## Timing of the Review

The Financial Aid Office of the CCSNH institution will evaluate a financial aid recipient's satisfactory academic progress upon completion of each semester within the standard academic year of the program the student is enrolled in.

## Results of the Review

Meeting Satisfactory Academic Progress (SAP) Standards. Students who meet SAP standards will be coded as making Satisfactory Academic Progress and will retain eligibility for federal student aid for their next semester.

## Satisfactory Academic Progress (SAP) Warning

Students who do not meet SAP standards will be placed on SAP warning for one semester. Students placed on SAP warning will retain their eligibility for federal student aid for their warning semester.

At the end of the warning period, SAP standards will be reviewed. If the student meets SAP standards, he/she will once again be coded as making satisfactory academic progress and will retain eligibility for federal student aid for their next semester. If the student is still unable to meet SAP standards, he/she will no longer be eligible to

receive federal student aid at the institution until such time that he/she is able to meet SAP standards or has been granted Probation.

## Satisfactory Academic Progress (SAP) Suspension

If the student is still unable to meet SAP standards after his/her Warning Period, he/she will no longer be eligible to receive federal student aid at the institution until such time that he/she is able to meet SAP standards or has been granted Probation.

## Satisfactory Academic Progress (SAP) Probation

A student who becomes ineligible for federal student aid as a result of not meeting satisfactory academic progress standards may appeal for a review of that determination. If the appeal is granted, a student will be assigned a SAP status of Probation, typically for a period of one semester. However, this period can be extended by placing the student on an academic plan if he/she will require more than one semester to reestablish financial aid eligibility with SAP standards. During Probation, the student will be eligible to receive federal student aid funding.

## Appeal Process

A student who becomes ineligible for federal student aid may appeal for a review of that determination. The student appeal request and any supporting documentation or degree audit must be submitted to the Financial Aid Office.

A successful appeal results in Probation and allows the student to be eligible for federal student aid for his/her probationary period.

A student choosing to submit an appeal of his/her SAP review results may be requested to submit the following information to the Financial Aid Office:

1. A written explanation of the circumstances that prevented him/her from achieving SAP standards, documentation of any extenuating circumstances, and what has changed in his/her situation that will allow him/her to achieve satisfactory academic progress unless the situation was evident. The Financial Aid Appeals Committee reserves the right to request further information from the student to support information provided in his/her explanation.
2. An academic plan which the student will follow to regain satisfactory academic progress.
3. If a student changes curriculum programs, is working toward multiple degrees/ certificates, or

graduates and enrolls in a second degree and then reaches 150% of the credits required for the new degree (or primary degree/certificate in the case of multiple degrees/certificates), a degree audit or academic plan may be requested with the appeal and will be evaluated on an individual, case-by-case basis.

## Regaining Eligibility

Unless an appeal is granted, a student can regain financial eligibility only by taking action that brings him/her into compliance with both the qualitative and quantitative components of the CCSNH institution's satisfactory academic progress policy. Neither paying for one's own classes nor sitting out a semester affects a student's SAP standing, so neither is sufficient to re-establish financial aid eligibility.

If a financial aid recipient believes he/she is meeting Satisfactory Academic Progress standards then he/she can request to have his/her SAP standing reviewed upon completion of the semester. If the student is found to be meeting both the qualitative and quantitative components of the SAP policy and to not have exceeded maximum time frame, then his/her status will be updated to reflect he/she is meeting Satisfactory Academic Progress standards, and the student will be eligible to receive Title IV financial aid the next semester.

## Repeat Course

For one time only, financial aid will cover a repeated course that has been previously passed. For this purpose, passed means any grade higher than an "F," regardless of any school or program requiring a higher qualitative grade or measure to have been considered to have passed the course. A student may be repeatedly paid for failing/ withdrawing from a course. However, if a student passed a course once, then is repaid for taking it, and fails or withdraws the second time, that failure counts as their paid retake, and the student may not be paid for retaking the course a third time. If a program of study requires students to retake all of the coursework for a term in which a student fails a course, any courses retaken that were previously passed in this case are not eligible for Title IV aid.

## Transfer Credits

Credits that are transferred in from another institution and apply to the most current major will be excluded from the student's cumulative GPA. However, they will be included in the calculation for the maximum time frame and completion rate components.

## Consortium Credits

All courses taken at an institution other than the home institution through an official consortium are included in the calculation for completion rate and maximum timeframe components, but are excluded from the student's cumulative GPA component.

## Developmental/Remedial/ESOL Credits

Credits from these courses will be included in the calculations for all three components of the satisfactory academic progress review. A student is eligible for up to 24 credit hours of federal student aid in this category.

## Incompletes

All incompletes must be resolved by the end of the third week of the semester following the receipt of the incomplete grade. If not, the grade is either automatically changed to an "F" or is considered to be an "F" for all components of the satisfactory academic progress review. Financial Aid can be withheld until incompletes are resolved.

## Audit Courses

Financial Aid does not cover any courses a student audits. Furthermore, audit courses are not included for any of the calculated components.

## Credit By Examination

Financial Aid does not pay for credit by examination. Credit by Examination is included in the maximum time frame and completion rate components of Satisfactory Academic Progress but is not included in the cumulative GPA component.

## Non-punitive Grades

Non-punitive grades will not impact the cumulative GPA component of a student's SAP status. However, they will be included in the calculation of the maximum time frame and the completion rate components.

## Pass/Non-Pass Grades

Pass/Non-Pass grades will not impact the cumulative GPA component of a student's SAP status. However, they will be included in the calculation of the maximum time frame and the completion rate components.

## Withdrawals

Withdrawals will not impact the cumulative GPA component of a student's SAP status. However, they will

be included in the calculation of the maximum time frame and the completion rate components. For further information about the Financial Aid Satisfactory Academic Progress policy, please contact the Financial Aid Office.

## Is Financial Aid Taxable?

Scholarships and grants (but not loans) which exceed the cost of tuition, fees, required books and equipment are considered taxable income under the Tax Reform Act of 1986. It is the responsibility of the student to properly report this income to the Internal Revenue Service. <http://www.irs.gov/publications/p970/index.html>  
Many taxpayers are eligible to claim educational tax credits through the Lifetime Learning Credit or the American Opportunity Tax Credit. In addition to the credits, taxpayers may be eligible to claim a student loan interest deduction and/or a tuition and fees deduction. By the end of each January, 1098-T forms are made available to eligible students typically via standard mail. These forms show eligible charges billed, and grants and/or scholarships processed in the applicable year.

Please note, the College does not provide personal tax advice. We suggest you contact a qualified tax professional for additional information.

## Veterans' Assistance

The goal of the School Certifying Official is to assist prospective and enrolled veterans, reservists, guardsmen, and their eligible dependents in accessing education benefits available through the Department of Veterans Affairs while meeting their educational objective at NCC.

Please contact the School Certifying Official for information on how to apply for VA education benefits.

VA Information:

Website: [www.benefits.va.gov/gibill](http://www.benefits.va.gov/gibill)

Phone: 888 GI-BILL1 - (888.442.4551)

Enrollment verification for properly documented veteran students is electronically reported to the Veterans Administration in a two part process. The number of credits each veteran is enrolled in will be reported once the student notifies the School Certifying Official that they have registered. Tuition and fees will then be reported after the add/drop period for the college system.

Students must follow the course requirements listed in their curriculum for their stated program as the School Certifying Official can only report courses within that program.

VA funded students are responsible for immediately notifying the College's School Certifying Official before taking of any action affecting their enrollment status (such as course drops, adds, or non-passing grades). Failure to do so may result in a debt to the VA.

All students must contact the School Certifying Official before adding or changing a major. Additional information may be required by the VA before the College can certify a second major.

Satisfactory progress toward completion, as specified in the Academic Standards section of this Catalog, must be maintained. Students who are placed on academic suspension must meet the published Academic Standards and be accepted to an approved degree program before benefits can be resumed.

Veterans who utilize Chapter 30 or 1606 must verify their enrollment each month to receive payment for that month. Enrollment can be verified on the last calendar day of the month by using Web Automated Verification of Enrollment (WAVE) at <https://www.gibill.va.gov/wave> or by calling the VA toll free at 1-888.GI-BILL1 (888.442.4551)

Post-9/11 GI Bill® students who receive Monthly Housing Allowance (MHA) and/or kicker payments are required to verify their enrollment to continue receiving their payments. You can verify enrollment via text or email. Contact the VA for more information by calling 1-888- GI-BILL1 - (888.442.4551)

The Community College System of New Hampshire (CCSNH) has adopted the following policies, which provide for payment of in-state tuition rates for veterans and covered individuals under U.S.C. § 3011 and § 3311 living in New Hampshire. More specifically, CCSNH system finance policies at 421.01.1 provide:

A veteran, as defined under RSA 21:50, I, or a covered individual, as defined under Chapter 30 or 33 of Title 38 of the United States Code using educational assistance benefits provided under federal law, shall be charged in-state tuition while living in New Hampshire and enrolled in any institution of the Community College System of New Hampshire.

A spouse or child using educational assistance benefits provided pursuant to Chapter 30 or 33 of Title 38 of the United States Code shall be charged in-state tuition while living in New Hampshire and enrolled in any institution of the Community College System of New Hampshire.

In-state tuition shall be charged to all covered individuals, including but not limited to the following circumstances: Any veteran that has a three-year period



of service and an honorable discharge and any veteran for whom this period of service is followed by a four-year period of service, and there is a dishonorable discharge. All of the discharges enumerated in 38 U.S.C. § 3311(c) and 38 U.S.C. § 3011 will be interpreted to fall under New Hampshire RSA 21:50, I, (a)(2).

In applying the policies, the term “spouse” will be interpreted to include current spouses, former spouses, and same-sex spouses and the term “child” will be interpreted to include biological, adopted, pre-adoptive, and stepchildren of a spouse, including of a same-sex spouse or former spouse.

Please see the School Certifying Official if you need assistance or have questions.

## Academic Requirements and Policies

### Associate Degree

The minimum requirement for the associate degree is 60 credit hours and completion of all specified program requirements. Students must successfully complete a minimum of 20 credit hours in General Education courses such as English, social science, mathematics, humanities, science and a minimum of 30 credit hours in their major program. Finally, students earning the degree must have a cumulative grade point average of at least 2.0.

Every student enrolled in an associate degree program must demonstrate basic arithmetic and algebra skills before enrolling in college-level math and or other courses (e.g., science). To earn an associate degree, students will be required to successfully complete one or more college-level math classes as specified by the particular program to which the student has been accepted. Students lacking basic arithmetic and algebra skills may be able to achieve those competencies through corequisite remediation offered by the college.

### Additional Associate Degrees

Students must earn a minimum of 15 additional credits at the College for each additional associate degree beyond those required for the first and subsequent degrees excluding Credit by Examination, Credit for Experiential Learning, College Level Examination Program (CLEP), and Transfer Credit.

### Certificate

Certificate programs emphasize specific skills and outcomes required for employment or for career

advancement. There are no specific general education requirements. Students earning a certificate must have a cumulative grade point average of at least 2.0 and have obtained a passing grade in each required subject.

## Attendance Policy

Class attendance is considered essential to academic success of students. Since there are constant learning opportunities between faculty members and students, and between students and other students within the classroom or lab, it is expected that students will attend each meeting of each course in which they are enrolled.

Specific attendance policies for each course are determined by the instructor and will be stated in writing in the course syllabus. These policies reflect the instructor’s authority to determine whether a student is permitted to make up missed work from absence or lateness and on what terms.

Specific attendance policies for each course are determined by the instructor in coordination with the instructor’s department chair. All policies will be clearly stated in writing in the course syllabus. These policies reflect the instructor’s authority to determine whether a student is permitted to make up missed work from absence or lateness and on what terms.

In all cases, faculty will issue an AF grade if a student has 1) missed more than two consecutive weeks of class and 2) failed to communicate with the instructor by responding to EAB attendance alerts and other outreach. An “AF” grade is calculated in the GPA as an “F”. All students who stop attending class after the add/drop period and have not officially withdrawn shall receive an “AF” from the instructor at any point during the semester until the start of final exams.

## Credit Hour Guidelines

1. A credit hour shall be the equivalent of one (1) hour of classroom or direct faculty instruction and a minimum of two (2) hours of out-of-class student work each week for 15 or 16 weeks.
2. A credit hour shall be allocated based on the following:

Category	Contact Hours per Week	Contact Hours per Sem. (based on minimum 15 week semester)
Class	1	15
Laboratory	2 or 3	30-45
Clinical	3 to 5	45-75
Practicum, Fieldwork	3	45
Internship	3 to 6	45-90
Co-op	Variable by Dept.	Variable by Dept.

## Student Conduct and Discipline

A student's continued enrollment at the College is dependent upon his/her behavior. The awarding of academic credits and recognition and the conferring of degrees, certificates, and awards are subject to the academic and judicial authorities of the College. A student's attendance may be terminated, and he/she may, following due process, be dismissed from the College at any time and on any grounds deemed advisable by the Administration.

Student conduct, both on and off campus, of a nature which would reflect discredit on the student and/or on the College, may result in disciplinary action by the College. Persons are subject to the laws of the State regardless of their student status and are subject to College discipline when the College's interests as an academic community are distinctly and clearly involved.

The judicial process will be the responsibility of the Vice President of Student and Community Affairs and the Judicial Committee. The Vice President may take administrative disciplinary action when it is deemed necessary to ensure the safety of students, faculty, or staff and/or the continuation of the educational process. The final judicial authority of the College is vested in the President.

## Grading System

Students earn grades which are assigned by individual faculty members on the basis of an objective evaluation of students' academic achievement. To successfully complete a certificate or an associate degree at the College, students must earn a minimum Grade Point Average (GPA) of 2.0 and meet all program requirements. The following grades are used in the computation of the Grade Point Average:

Grade	Quality Points	Grade	Quality Points
A	4.00	C	2.00
A-	3.70	C-	1.70
B+	3.30	D+	1.30
B	3.00	D	1.00
B-	2.70	D-	0.70
C+	2.30	F	0.00

## Auxiliary Grades

The following Auxiliary Grades are not used in the computation of the Grade Point Average:

**W:** Student-initiated withdrawal from a course at any time prior to completion of the drop deadline (60% of the course) does not affect GPA. This can be initiated by the instructor if the student, because of extenuating

circumstances, is unable to initiate the process (e.g., catastrophic illness or injury, job transfer to another state).

**WP:** Student-initiated withdrawal from a course after the drop deadline (60% of the course) if the student has a passing grade at time of drop as determined by the instructor. WP does not affect GPA, and can be initiated by the instructor if the student, because of extenuating circumstances, is unable to initiate the process (e.g., catastrophic illness or injury, job transfer to another state).

**AU:** A course taken as an audit does not earn credit and cannot be used to meet graduation requirements. Admission by permission of the instructor. Not all courses can be taken for audit.

**I:** Incomplete grade. This indicates that a student has not completed a major course assignment due to extraordinary circumstances. It is not used to give an extension of time for a student delinquent in meeting course responsibilities. The "I" grade is not calculated into the GPA. However, all work must be completed by the end of the third week of the subsequent semester or the grade defaults to an F. See full "Incomplete Grade Policy" elsewhere in the College catalogue.

**P:** Pass (not calculated into GPA)

**NP:** No Pass; unsatisfactory (not calculated into GPA)

**CS:** Continuing Study. Allows the student to re-register for a developmental course if competencies have not been met by end of the course. Intended for students who have demonstrated progress and a commitment to succeeding in the course but who need more time to achieve competencies. This does not affect GPA.

The following Auxiliary Grades are used in the computation of the Grade Point Average:

**WF:** Student initiated withdrawal from a course after the drop deadline (60% of the course); student has a failing grade at time of drop, as determined by the instructor. Calculates in GPA as an "F."

**AF:** Instructor or administrator initiated withdrawal at any time for reasons other than poor grade performance—e.g., failure to meet attendance requirements as published in the instructor's syllabus. The grade may also be issued if a student registered in a clinic, practicum, internship or lab is deemed unsafe or performing in an unsatisfactory manner as determined by an evaluation by a faculty member/agency supervisor in accordance with department criteria and procedure. Calculated in GPA as an "F."

## Failed or Repeated Courses

For purposes of calculating the cumulative GPA (CGPA), when a student repeats a course at the same CCSNH institution, the grade achieved in the most recent course will be the grade used in the CGPA calculation. All previous grades will remain on the transcript but are not used in the calculation. Only those repeated courses completed at the student's college of matriculation will be used in the calculation of the CGPA; repeated courses completed at an institution outside of the CCSNH and transferred into the student's college of matriculation will not be used in the calculation of the CGPA.

Third and subsequent attempts to repeat a course will require the approval of the Vice President of Academic Affairs. A failed course may not be passed by Credit by Exam. Financial aid may be impacted by repeating courses.

## Eligibility for Extracurricular Activities

To hold office, students must be "in good standing" at the College. A student officer who is placed on probation may continue to hold that office for the current semester. If such probation continues after the semester, the office must be vacated and an election held to fill the vacancy.

## Transcripts

Transcripts of a student's College record will be furnished upon written request. Transcripts require two business days to be processed. A longer time is required at the end of each term and at graduation.

## Transfer of Credit

Students may be admitted to programs with advanced standing if they have taken appropriate college courses at another accredited institution or System College and earned a "C" or higher. Courses successfully completed prior to admission will be considered for transfer.

It is the student's responsibility to furnish the following: (1) transfer request form, (2) official transcript, and (3) copy of the course description. The Vice President of Academic Affairs (VPAA), Department Chair, Program Coordinator or designee will evaluate each course and grade and determine if the credits should transfer. The student will receive a list of courses accepted for transfer.

Any current students seeking to take a course at another college and wishing to apply that course to their degree must submit a transfer credit authorization form to the VPAA for approval. Without this written approval prior

to enrollment in the course, the College does not guarantee acceptance of this course as transfer credit. Grades of courses transferred are not included in the GPA or CGPA. Approved Credits earned at another institution will be added to the total credits accumulated for graduation.

## Distance Learning Verification of Identity

NCC offers distance education courses and has processes in place to verify that the student who registers in a distance education course is the same student who participates in and completes the course and receives the academic credit. Verification may be accomplished through:

1. A secure login and pass code;
2. Proctored Examinations;
3. Pedagogical and related practices that are effective in verifying student identity

In carrying out these processes, NCC protects student privacy and will notify students at the time of registration or enrollment of any projected additional student charges associated with the verification of student identity.

## New Hampshire Transfer Connections Program

The NH Transfer Connections Program is designed to inform students about transfer opportunities from Nashua Community College to participating four-year colleges and universities. Students participating in this program will benefit from an easy transfer process with no additional application or fee. For more information contact the Academic Advising Center.

## Internships

The following applies to all programs requiring an internship or service learning experience:

The College must ensure that individuals (customers, employees, etc.) at internship and service learning sites are not adversely affected by students during learning experiences. Therefore, students participating in internship and field experiences must demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member and establish a rapport and maintain sensitive interpersonal relationships with employees, customers, and clients. For further information please contact Professor Jayne Barnes @ JBarnes@ccsnh.edu.

## Credit for Prior Learning

Nashua Community College awards credit for students who may have acquired learning outside of the traditional academic learning environment. This learning may have been obtained through industry certifications, work experience, employer training programs, independent study, non-credit courses, volunteer or community service, or non-college courses or seminars.

Prior Learning Assessment (PLA) is the term used to describe the process by which a student's experiential learning is evaluated to grant college credit toward continuing education or training. There are four broadly applied approaches to PLA to ensure academic rigor and quality: (1) National Standardized exams in specific disciplines, e.g. Advanced Placement Exams (AP), College Level Examination Program (CLEP) tests; (2) credit by exam (CBE); (3) individualized assessments, particularly portfolio-based assessments; (4) evaluated non-college programs, e.g., American Council on Education's ACE credit service and evaluations of corporate and military training; industry recognized credentials. Adapted from the Council for Adult and Experiential Learning (CAEL) definition of Prior Learning Assessment ([www.CAEL.org](http://www.CAEL.org))

## PLA Methods

### College Board Advanced Placement Tests

The College recognizes the College Board Advanced Placement Examination Program as a means of evaluating student eligibility for advanced placement. Matriculated students who have participated in the AP Program and who have been admitted to the College should have official AP grade reports forwarded directly to the College Admissions Office. These grade reports should come from the College Board, Advanced Placement Examinations, CN 6671, Princeton, NJ 08541-6671; telephone 609.771.7300. Upon receipt of students' AP reports, the advising center will access the grade and evaluate for transfer credit. The minimum score to receive credit varies from 3 to 5. No credit is awarded on any AP exam score of less than 3.

### College Level Examination Program (CLEP)

Students may choose to earn credits by taking a nationally standardized exam known as CLEP (College Level Examination Program). The college awards credits for courses in the areas of Business, Composition and Literature, Foreign Languages, Social Sciences, Science and Mathematics. A complete list of CLEP exams accepted for credit by NCC is available on our website ([https://www.nashuacc.edu/student-services/advising-](https://www.nashuacc.edu/student-services/advising-center/clep-policy)

[center/clep-policy](https://www.nashuacc.edu/student-services/advising-center/clep-policy)), as well as in the Academic Advising Center. The cost of each exam is published on the College Board website [www.collegeboard.com/clep](http://www.collegeboard.com/clep).

Passing scores

for CLEP are 50 and above unless specified otherwise. Successful completion of a CLEP exam is treated as a transfer credit. Matriculated students will need to request that a copy of their scores be sent to NCC for review. This request is made to the College Board and can be done during or after the exam.

## Credit by Examination (CBE)

Credit by Examination (CBE) may be earned by matriculated students who, by study, training, or experience outside the College, have acquired skill or knowledge equivalent to that acquired by students enrolled in a course at the College. Such skill, knowledge, or experience shall be in the area of the course concerned and determined to be relevant by the Vice President of Academic Affairs or other authorized personnel. Students may challenge a course by requesting and completing an examination or evaluation that covers the instructional material of the course. If successful, the appropriate credits earned are applied to the students' programs but may not be transferable to another college. Since a traditional grade (A-F) is not entered, the Credit by Exam is not calculated into the student's GPA. For further clarification, check with the college you are planning to transfer to. Students requesting a CBE shall pay a fee of \$25 per credit. This fee is non-refundable. Credit will not be given for grades below C. If a student fails to pass the exam, no entry is made on the academic transcript but a record of the unsuccessful completion will be maintained in the student's file. Students receiving a grade below C are ineligible for another CBE in that course. Students may not CBE a course in which they are enrolled, if they have earned a grade within the CCSNH, or if they have been administratively withdrawn, or if they dropped the course after the two-week drop/add period.

Please note that not all programs provide the CBE option. Candidates wishing to review the material for which they shall be held responsible in a CBE may apply to the chairperson of the department concerned for a list of areas of the subject matter covered upon which the exam will be based. The CBE will cover the content of the course being challenged. Students must apply for and take the CBE by the end of the Add/Drop period.

## Experiential Learning Portfolio

Credit for prior learning offers students the opportunity to demonstrate the knowledge they have gained through life experiences and apply this knowledge toward credit in some degree/certificate programs. To prepare for this option, students will develop a portfolio to be assessed

by appropriate college personnel. A student must be matriculated at NCC to be eligible to apply for experiential learning assessment credit.

Not all programs provide this option; students should consult with their respective college advisor and/or program coordinator for more information and the process used for application. Students may be awarded a maximum of 24 credits for experiential learning. Students will be assessed a fee based on 50% of the current tuition rate on the total credits awarded (e.g. for 12 credits awarded:  $0.50 \times \text{current tuition rate} \times 12$  credits)

## ACE Credit – American Council on Education

College credit may be granted to students with military training, experience, or coursework that is recognized by the American Council on Education (ACE) based on the program the student is entering.

Students with any questions about ACE should contact the advising center at 603.578.6817. Students seeking credit for their military experience will also need to submit a military transcript to the Advising Office for the review/evaluation process.

## Industry Recognized Credentials

Industry Recognized Credential is an umbrella term used to describe apprenticeships, badges, micro-credentials, certificates, certifications, degrees, diplomas and licenses. For example, but not limited to CISCO, CompTia and Microsoft. Adapted from the New England Board of Higher Education (NEBHE) definition of Credential (<https://nebhe.org>) Please note that not all programs accept Industry Recognized Credentials for credit.

Please consult with your program coordinator for further clarification.

## Audit

Students may enroll on an audit basis after consultation with the course instructor and Vice President of Academic Affairs at which time responsibilities are established. Auditing students are subject to regular policies and tuition, but audit courses are non-graded and carry no credit towards graduation.

## Running Start Program

The Running Start Program allows high school students in participating high schools to enroll in NCC courses taught at their own high school by their high school teachers who have been approved by the College.

This dual-enrollment program provides students with both high school and college credit for these courses. College credits may be used toward completion of a degree or certificate at this College, or credits may be transferred to other colleges and universities throughout the country. (Please note that the determination of transfer credit is at the discretion of the receiving institution.)

Running Start Program students realize significant advantages: College credit awarded in high school, reduced tuition costs (currently \$150 per course), reduced time to complete higher education requirements, and increased confidence in high school to college transition. There is currently a scholarship from the New Hampshire Governor's Office that covers the cost of tuition for STEM/CTE-approved courses. A list of approved courses can be obtained from the Dual Enrollment Coordinator.

If a Running Start student would like to utilize classroom accommodations (IEP or 504), they need to complete NCC's Application for Reasonable Accommodations to obtain a college level plan.

Contact the Dual Enrollment Coordinator at [rsncc@ccsnh.edu](mailto:rsncc@ccsnh.edu) for more information.

## Scholastic Honors

At the end of each semester, the College publishes an Honors List of students who have attained Vice President's List or President's List, based on grade point averages for that semester. A student must be enrolled for at least 12 credit hours in a semester to be considered for honors.

## Academic Standards

Students falling below the following standards will be designated as "not meeting satisfactory progress." Failure to meet satisfactory progress will result in either Academic Probation or Academic Suspension.

**Academic Probation Definition:** A warning which indicates the student may not be on track to graduate because of poor academic performance. The student may remain in the program, but his/her academic progress will be monitored.

Students meeting the criteria below will be placed on Academic Probation:

0 - 13 Credits Accumulated: below 1.50 CGPA  
14 - 27 Credits Accumulated: below 1.70 CGPA  
28 - 40 Credits Accumulated: below 1.80 CGPA  
41+ Credits Accumulated: below 2.00 CGPA

Academic Suspension Definition: Students placed on Academic Suspension will be removed from their program and may not reapply for admission for a minimum of one semester. Students may continue to take courses as a non-matriculated student and will not be eligible for Financial Aid. Students placed on Academic Suspension will be required to meet with an Academic Advisor to create an academic plan and to meet with the advisor on a regular basis.

Students meeting the criteria below will be placed on Academic Suspension:

0 - 13 Credits Accumulated: below 0.50 CGPA

14 - 27 Credits Accumulated: below 1.10 CGPA

28 - 40 Credits Accumulated: below 1.25 CGPA

41+ Credits Accumulated: below 1.50 CGPA

OR

A student who does not meet satisfactory progress for Academic Probation for two consecutive semesters will be placed on Academic Suspension.

Financial aid may be in jeopardy if a student fails to achieve satisfactory academic progress as defined above.

Academic Probation 1: Students with a GPA of 1.0 or below at the end of their first semester of attendance will be placed on Academic Probation 1 (AP1). Students must earn a CGPA of 1.5 or greater at the end of their second semester of attendance in order to come off Academic Probation. When placed on AP1 status, students must contact the Academic Advising Center to develop a plan of action for academic success.

## Withdrawal and Readmission

Students who find it necessary to withdraw from the College should first notify their faculty advisor and then obtain a withdrawal form from the Registrar's Office. The student will circulate the withdrawal form to the indicated College offices and return it to the Registrar. Failure to officially withdraw or return College property may result in a student's records being noted: "Withdrawn-Not-in-Good-Standing."

An official withdrawal from the College after the last date to drop a course shall be considered effective the first day of the following semester for academic reasons, and the student will be held academically accountable for the entire semester. A final grade will be issued as though the student had completed the entire semester.

"Students who have officially withdrawn from the College may apply for readmission under the current program profile. Students will need to complete new program requirements if a program change has occurred.

## Graduation Requirements

To graduate, students must complete all courses and attain a cumulative grade point average (CGPA) of at least 2.0. Specific requirements for all degree and certificate programs are available from the Registrar. Credits earned in developmental courses are not counted toward graduation requirements but are calculated in the GPA and CGPA. Matriculated students must earn a minimum number of academic credits at the College as follows:

Degree students must earn 15 credits, of which 8 credits must be in advanced courses in the student's major.

Certificate students must earn 6 credits or 25% of the credits, whichever is higher.

## Academic Honors

A full-time, matriculated student in good standing with a grade point average of at least 3.7 is entitled to honors on the President's List. A full-time student earning a grade point average of 3.0 to 3.69 is entitled to honors on the Vice President's List.

## Phi Theta Kappa

The purpose of Phi Theta Kappa shall be to recognize and encourage scholarship among two-year college students. To achieve this purpose, Phi Theta Kappa shall provide opportunities for the development of leadership and service, for an intellectual climate for exchange of ideas and ideals, for lively fellowship for scholars, and for stimulation of interest in continuing academic excellence. NCC's Chapter is the Alpha Chi Kappa Chapter. Membership is by invitation only.

## Public Disclosure

According to the most recent figures on the National Center for Education Statistics website, the overall graduation rate for full-time, first-time undergraduates was 32%. It is important to note that many students do not attend full-time and take longer than the normal time of 2-3 years. For those students who take longer, the graduation rate is 33%. Also many students do not have the goal of graduating from the College. Students often attend to complete a semester or two before transferring, to explore a potential career area, to resolve academic deficiencies before returning to their original college, or to take courses for self-improvement.

The percentage of students who began in Fall 2018 and either graduated or returned in Fall 2019 was 69% for full-time students and 50% for part-time students.

## Developmental Education Policies

Students who test into two or more developmental classes must enroll and participate in continuous developmental education until they fulfill the institutional requirements for developmental education. Students who do not satisfactorily place into college-level mathematics or English courses will be required to enroll in the corresponding Co- Requisite Workshops. These workshops are designed to help students achieve success with college-level course material while receiving targeted academic support through a two-hour weekly workshop class. Instruction will align with the curriculum of the college- level course and provide tutorial support through a variety of methods and materials. In order to achieve the optimum experience for success, attendance in the Workshop is essential. To that end, a student enrolled in the Co-Requisite workshop may not miss more than two Workshop classes. In the event that a student misses more than two Workshop meetings, or an additional fraction of a Workshop class thereof, the student will receive an AF grade, which is calculated into the student's GPA as an F grade, for the gateway course.

## Consortium Agreement Policy

Nashua Community College is committed to providing the necessary classes students need to complete their degrees. However, there are occasions when students choose to complete individual courses at other colleges. In these situations, the student is responsible for completing the "Transfer Course Authorization Form" and getting the appropriate signatures. Once that document is completed, a student, if she/he would like financial aid to include the requested consortium course in the overall aid calculation, must submit an additional form: The Consortium Agreement Form (available in the Financial Aid Office).

The basic requirements for Nashua Community College's approval:

- The requested course must be required for graduation.
- A student must be enrolled in at least 50% of his or her credit hours at NCC during the semester of requested Consortium.
- The Consortium must be signed before the end of our Add Period at the start of the semester

## Student Services

Fully aware that the value of the college experience for each student is greatly affected by personal life difficulties, needs and interests, the administration,

faculty and staff of the College regard student services as an integral part of the total educational program. A conscientious effort is made to know students as individuals and to serve them accordingly.

The Student Handbook describes specifically the student-related policies and programs at the College. Students are expected to be informed about the policies published in this catalog and in the Student Handbook as well as subsequent policies and information that may be published or posted during the school year. Policies of the College may, and often do, change since the College must maintain flexibility to serve its students. It is the responsibility of the student to read and understand the College policies.

## Nashua Transit System

The College has a "UPASS" transportation agreement with the City of Nashua, New Hampshire/Nashua Transit System (NTS) which provides NCC students unlimited fixed- route access privileges. Students presenting a valid NCC ID card will be excused from paying a fare at the time of the trip. As part of the agreement, compensation made by the College will cover all fares.

## Wellness Center

The Wellness Center houses a full size gymnasium, suspended walking track, gaming room, fitness center and locker rooms. The Gaming room contains Xbox, PlayStation, and Wii gaming stations; as well as table and board games and areas for students to meet up for recreation purposes. The facility is open to all students, faculty and staff with a valid NCC ID and completion of the Wellness Center Registration Form. Hours of operation are posted outside the Wellness Center as well as online.

## Intramural Sports

The intramural sports program at NCC is for current students who would like to participate in competition. Competition can be provided in the form of leagues, tournaments and special events each semester, as well as a weekly intra-murals night with varying activities played in a pick-up format. Some past programs offered have been basketball, volleyball, dodgeball, as well as e-sports opportunities. The programs offered are based on student interest and the availability of resources and facilities.

## Activities and Organizations

Students at Nashua Community College have been most enthusiastic in organizing their own activities guided by faculty advisors. Student activities are similar to those found at other commuter colleges and are based upon student interests. Students participate in many college-sponsored events ranging from on campus activities such as the Coffee House; as well as off-campus trips to museums, theater performances, conventions, festivals, or other student-driven undertakings.

## Bookstore

The Bookstore serves as a center for the purchase of textbooks and equipment necessary for study at the College. The bookstore is a contract service with Follett. The hours of operation are posted on the door and online. Questions regarding the Bookstore services should be directed to the Admissions Office. The Bookstore phone number is 603.880.7083 and their website is [www.bkstr.com/nashuaccstore/home](http://www.bkstr.com/nashuaccstore/home).

## Food Services

Nashua Community College hosts a dining facility in the Wellness Center that offers a variety of made to order grab and go meals and snacks. From hot breakfasts, grilled sandwiches, pizza, and salads, the fresh made choices offer something for everyone. We also have vending machines in the cafeteria area available with drinks and snacks. Hours of operation are posted online.

## Graduate Placement

The College is sensitive to the career counseling needs of students and provides a variety of services including Career Coach which is a computerized career assessment and interest inventory. Students are assisted in their search for employment through notification of employment opportunities, access to skill building seminars such as résumé writing and job search strategies. Historically, approximately 90% of the graduates are employed or continue their education within 90 days of graduation. NCC uses College Central Network (CCN) as its official résumé and job posting service. Local employers post jobs exclusively to our school via the CCN site. Students and alumni can create an account profile to:

- Easily search and apply to local and national Full-time, Part-time, Internship/Co-op job opportunities
- Create and upload your résumé and career portfolio to make available to employers

- Access event announcements, career advice documents, Podcasts, videos and articles

For more information, contact the Academic Advising Center.

## Academic Advising Center

The Academic Advising Center assists students with the course selection process, academic concerns, program and degree requirements, transfer options, and other related college practices. Hours of operation are posted on the website. Specific contact information can be found at [www.nashuacc.edu/student-services/advising-center](http://www.nashuacc.edu/student-services/advising-center). Students can find the name of their assigned advisor on Navigate or Student Information System (SIS). The Academic Advising Center is located in room 159.

## Disability Services Office

Students who have documented disabilities or think they may have a disability that impacts learning may speak with the Disability Services Coordinator, to discuss the process of obtaining reasonable accommodations at the college level and to learn about additional resources. In order to receive classroom accommodations, a student must meet eligibility requirements and complete the Reasonable Accommodation Plan (RAP) application process. Forms and instructions are available on the NCC website.

## English for Speakers of Other Languages

The Department of Multicultural Engagement offers support for non-native speakers of English including language evaluations, advising, tutoring, and social activities such as International Café, Conversation Partners, and the Multicultural Club. There are a variety of multi-level classes to improve English for social and academic purposes. Courses to choose from cover conversation, pronunciation, grammar, vocabulary, and writing domains.

Contact the Department Chair for more information.

## Walter R. Peterson Library and Learning Commons

The Library and Learning Commons is a welcoming area where the NCC community can find study space,



computers and printing, academic resources, research and technical assistance as well as a tutoring and writing center

The Library provides 24/7 online access to an extensive array of academic resources, including search and citation tools, databases and ebooks, research guides, digital magazines and streaming videos on its website at <https://library.nashuacc.edu> (Use EasyLogin when prompted.) Staff can be contacted by phone, email and chat.

Tutoring by faculty members and writing consultants is available to all students, free of charge. Students can discuss and refine their writing skills through one-on-one sessions with writing consultants. Consulting sessions may focus on research papers, technical reports and other projects such as resume writing and preparing an essay for college transfer.

## Student Rights Grievance Procedure

Any student who feels that his/her rights have been violated may file a grievance.

Please refer to the Student Handbook for the complete grievance procedure policy and information on the grade appeal process.

If you have a grievance you feel has not been properly resolved by NCC the following organizations may be contacted for assistance:

NH Department of Education, Higher Education Division complaint process through the following link: <https://my.doe.nh.gov/ESSWEB/HigherEducation/Complaint.aspx> or by contacting at the NH Department of Education, Higher Education Division:  
New Hampshire Department of Education | 101 Pleasant Street | Concord, NH | 03301-3852 | Telephone: 603.271.3494 | TDD Access: Relay NH 711

NEW ENGLAND COMMISSION OF HIGHER EDUCATION (NECHE)  
3 Burlington Woods Drive, Suite 100 Burlington, MA 01803 781-425-77414 <https://cihe.neasc.org/information-public/comments-and-complaints>

# General Education Requirements

## General Education Mission Statement

Nashua Community College is committed to offering a foundation of common knowledge and skills to all students through a variety of learning experiences. General Education at NCC provides a broad core of humanistic knowledge demonstrated through the achievement of essential learning outcomes to prepare students for twenty-first-century challenges. It is a coherent framework for providing students a high level of learning as well as strong intellectual and practical skills needed to become well-informed citizens in an ever-changing world.

## Philosophy of General Education

General Education is based on the belief that all students should have the educational experiences that enable them to broaden their perspective of the world around them and help them succeed in future career and intellectual pursuits. Students should be able to understand various key concepts and methods of inquiry that relate to specific fields of study. General Education will provide the skills and knowledge that will allow students the opportunities to communicate effectively, create exemplary work, commit to learning, collaborate with others, and challenge one's self and others by questioning and reasoning.

## General Education Learning Outcomes

After completion of general education courses, the student will meet the following outcomes:

1. The student will communicate effectively and fluently; read with comprehension; listen, speak and write competently.
2. The student will develop skills in reflection, analysis, logical reasoning, and evaluation to formulate judgments, reach conclusions, and solve problems.
3. The student will evaluate and utilize quantitative and qualitative data and apply mathematical and scientific principles and methods.
4. The student will utilize technology to locate, evaluate, organize, and utilize information accurately and responsibly.

5. The student will acquire knowledge and skills to function effectively as informed and responsible citizens.
6. The student will acquire knowledge and skills that will enable respect for diversity as well as an awareness of global interdependency.

## Graduation Requirements and General Education Core Courses

General education core courses fall into a matrix of seven categories that contains six to ten courses from which you can choose to fulfill graduation requirements.

The categories include: English/Communications, Science, Behavioral Social Science, History/Political Science, Quantitative Literacy, Humanities/Fine Arts, Global Awareness and Diversity.

## General Education Elective Courses

Elective courses are other general education courses in addition to the core that are taken as part of the requirements for the associate degree.

Always consult an advisor or a department chair or program coordinator if you are not certain about your program requirements and progress toward degree completion.

## Industry and Transportation Department General Education Policies

(Relevant to Automotive, Aviation, Collision Repair, Honda/PACT and all future programs under the supervision of Industry and Transportation)

The faculty of the Industry and Transportation recognize the importance of general education courses to the growth and development of students in the Industry and Transportation programs. Each program provides students with the necessary skills required to pursue careers in any number of the potential opportunities offered by Industry and Transportation. The programs provide training that develop technical skills, but also other skills that will be useful in the workforce such as but not limited to reading comprehension, effective oral and written skills, critical thinking skills, and workplace ethics. Local employers whom are members of the NCC Advisory Boards have repeatedly emphasized the fact that these skills, as well as the technical skills are in high demand.

So that students stay on track with the courses that provide the opportunity to develop the marketable skills that employers will find desirable, as well as meet the requirements of the Associates Degree Program offered at NCC, the NCC Faculty in regards to student matriculation in the various Industry and Transportation programs have established the following guidelines:

1. All students must take an Accuplacer exam or provide SAT scores prior to admission into any of the Industry and Transportation programs. Students must place into college level math and English courses in order to be accepted into any Industry and Transportation program. Students testing into MATH090 and/or ENGL090 will not be eligible for enrollment in any Industry and Transportation courses until that student has successfully completed MATH090/ENGL090 and retested into college level math and English courses. It is recommended that students complete these courses and retest prior to the start of the Fall semester.
2. If a student is deficient in general education classes as stated by the specific program map, the student must make up the missing general education courses in lieu of advancing in the Industry and Transportation program courses until the student has sufficiently met the academic requirements of the program as listed in the designated program map.
3. Students must maintain an effective CGPA to advance in Industry and Transportation program courses. In order for students to graduate, a 2.0 CGPA is required. Students that fall below the level of a 2.0 CGPA will be directed to retake courses in which he/she scored poorly before advancing in Industry and Transportation program courses. The student will not be able to advance in the program until the student can demonstrate a proper level of academic success.
4. If a student must register for a general education course and there is a conflict between an Industry and Transportation program course and a general education course, the general education course will always take precedence over the Industry and Transportation program course.

## Honors Program

NCC Honors is a non-degree program open to all qualified students in all majors.

Nashua Community College recognizes that students enter the learning process at different levels of competency and is committed to supporting high

achieving students in pursuit of their academic, professional, and personal goals through their participation in the Honors Program at NCC.

The Honors Program provides a supportive intellectual environment that encourages creative and critical thinking and varied opportunities to expand academic, cultural and social horizons. Honors participants take small discussion-oriented seminars that satisfy general education requirements through exposure to innovative and challenging curricula.

## Benefits of Honors Program

- Specialized enriched curriculum taught by outstanding faculty
- Interaction with a talented community of scholars
- Small classes (15 students or fewer)
- Extraordinary opportunities for research and publication
- Honors distinction on the NCC transcript and diploma
- Enhanced prospects of acceptance to four year colleges and universities
- Scholarship opportunities.

Through a sincere engagement in the Honors curricula, students will be prepared for and aware of the dynamic challenges of attaining their professional and personal pursuits. Please see your advisor or the Honors Program Coordinator for more information.

## Admissions Eligibility

High school graduates or those who have proof of high school completion, or those accepted into the NCC Early College program and:

- Have earned the following minimum SAT scores: English score of 550 and Writing score of 8 and/or a Math score of 530, or:
- Have earned the following minimum ACCUPLACER scores: Writing 263 and above and Writeplacer 6 and above and/or in Math, 237 and above.

Current NCC students, having earned at least 9 credits of college-level work with at least 6 credits in General Education courses, and having earned a minimum cumulative GPA of 3.20.

Transfer students from another college/university, having earned a minimum cumulative GPA of 3.20, and having transferred at least 9 credits of college-level work with at least 6 credits in General Education courses.

Transfer students having completed 6 credits in another college's honors program with a cumulative GPA of at least \*3.20.

(\*The minimum GPA required of NCC Honors Program students to maintain program status).

## Application Process

To apply to the Honors Program, the student must complete an application form available from the Honors Program Coordinator, Admissions Office, or Advising Center.

## Graduation

To graduate with the Honors Program designation on the NCC transcript, students must have:

- Applied and been accepted into the Honors Program
- Successfully completed a minimum of 2 Honors courses earning a minimum grade of B- in each Honors course.
- Achieved a minimum cumulative GPA of 3.20 in the degree program.
- Submitted the required Honors Program Learning E-Portfolio to the Honors Program Coordinator by the second Monday in April of their graduating year for evaluation and acceptance by the Honors review board. The Learning E-portfolio will include academic assignments and projects completed in the NCC Honors and NCC Degree program courses that demonstrate successful achievement of the Honors Program competencies.

To graduate with the designation of NCC Honors Scholar on their diploma and transcript, students, in addition to the above stipulations, must have

- Successfully completed one additional Honors course (3) with a grade of B- or above  
Or have included in their Learning E-Portfolio, with reflection on achieved learning, at least
- One independent research project on a concept introduced in a course
- One Capstone project completed in an NCC degree program
- One Community Service project successfully completed and documented
- One internship successfully completed and documented

- Two cultural experiences (play, art exhibit, concert, lecture, film) documented

## Honors Designated Courses

		CL	LAB	CR
ENGL110N	Honors Expository Writing	4	0	4
BUS220N	Honors Leadership in the Workplace	3	0	3
ENGL255N	Honors Humor in Literature and Other Media	3	0	3
PHIL130N	Honors Ancient Greek Philosophy	3	0	3
MATH107N	Honors Statistics I	4	0	4
ENGL250N	Honors Advanced Creative Writing	3	0	3
HIST262N	Honors Movies and Social History of the USA	3	0	3
ANTH263N	Honors Introduction to Chinese Culture & Society	3	0	3

In completing 2 or more Honors courses, students will be able to:

- Communicate clearly, both orally and in writing, with a rhetorical style, depth of analysis, and voice appropriate to the complexity of the intellectual discourse.
- Demonstrate comprehension and critical evaluation skills of scholarly research and multiple genres of writing.
- Logically apply knowledge for problem solving and toward the advancement of new interpretations and developed arguments within a variety of academic and professional contexts.
- Demonstrate a facility with contemporary information technology and the essential skills required by various academic and professional communities.

## Accelerated Lifelong Learning (ALL)

The Accelerated Lifelong Learning (ALL) Program is designed for adult learners who are looking to complete an Associate degree or certificate program in an accelerated format.

The ALL program is a cohort-structured schedule that allows students to complete an associate degree in 20 months or a certificate in 10 months.

The ALL program consists of courses that are held all on-line or in a hybrid format (mix of on-campus and on-line instruction).

Students interested in the ALL program can currently enroll in the following programs:

- A.S. Business Administration: Management

- A.A. Psychology
- Data Analytics Certificate
- Early Childhood Education Associate Teacher Certificate
- Early Childhood Education Lead Teacher Certificate

## Department of Multicultural Engagement

The Department of Multicultural Engagement offers support for non-native speakers of English including language evaluations, advising, tutoring, and social activities, such as International Café, Conversation Partners, and the Multicultural Club. There are a variety of multi-level classes to improve English for social, academic, and professional purposes. Courses to choose from cover conversation, pronunciation, grammar, vocabulary, and writing domains. In addition, the Department provides non-credit world language instruction for part of a well-rounded, globally-minded education, for both personal knowledge and professional advantage.

### Benefits

- Helps non-native speakers of English develop English language proficiency for personal, academic, and career success—increasing language acquisition.
- Provides individual support for students, including personalized advising, registration, mentoring, tutoring, and referrals for additional support services—promoting a positive college experience.
- Offers social and service opportunities that promote diversity, multicultural awareness, and language practice—improving cultural and language competence.
- Facilitates cultural and language exchange between native English speakers and non-native speakers outside of the classroom environment—promoting greater understanding of American culture and other cultural perspectives.
- Provides a variety of non-credit courses and workshops which promote language acquisition, best teaching practices for content-area instructors of non-native speakers, and customized courses for business and industry.

### Eligibility

The Department of Multicultural Engagement offers support for non-native speakers of English, as well as students wishing to study available non-credit world

languages. Students may be both matriculated or non-matriculated, who have successfully completed a Department language assessment, individual language evaluation, or standardized test (ACCUPLACER®.)

## ESOL Courses

	CL	LAB	CR
ESOL074N Grammar for Writing IV	3	0	3
ESOL075N Grammar for Writing V	3	0	3
ESOL076N Grammar for Writing VI	3	0	3
ESOL083N Listening, Speaking & Pronunciation	3	0	3
ESOL085N Listening, Speaking & Pronunciation II	3	0	3
ESOL086N Academic Writing for English Language Learners II	3	0	3
ESOL088N Academic Writing for English Language Learners III	0	3	3
ESOL096N Academic Writing for English Language Learners IV	0	3	3

Upon successful completion of the ESOL courses selected by a Department advisor, students will be able to continue to courses required by their major.

### Non-Credit World Language Offerings

Spanish I, II, III, IV, V, VI, VII, VIII

French I, II

Basic French for Travel I, II

ESOL Low-intermediate, High-Intermediate

## Technical Standards

### Section 1: Precision

#### Manufacturing

- Have command of the English language
- Have reading comprehension skills sufficient to read and comprehend manuals and textbooks
- Have communication skills sufficient to prepare required reports
- Be able to understand and follow both written and oral instructions
- Be able to complete requirements for college level classes
- Have sufficient vision to distinguish colors, read scopes, diagnostic equipment, measuring tool, and information from a computer screen (adaptive equipment acceptable)
- Have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable)
- Have the ability to stand for extended periods of time and physical strength to lift up to 80 pounds
- Have sufficient dexterity to perform manual skills related to machining
- Be able to work in an environment with elevated levels of sound and exposure to machining fluids

### Section 2: Automotive Technology, Collision Repair Technology, and Honda Automotive Technology

- Have a high school degree or equivalent
- Have command of the English language
- Have reading comprehension skills sufficient to read and comprehend service literature
- Have communication skills sufficient to prepare required reports
- Be able to understand and follow both written and oral instructions
- Be able to complete requirements for college-level classes
- Have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable)
- Have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable)
- Have the ability to stand for extended periods of time and physical strength to lift automotive parts and equipment.
- Have sufficient dexterity to perform manual skills related to automotive services
- Be able to work in an automotive service facility environment
- Maintain a valid driver's license
- Be able to operate a manual transmission.

### Section 3: Aviation Technology

- Must be 18 years of age
- Have a high school degree or equivalent
- Have command of the English language
- Have reading comprehension skills sufficient to read and comprehend service literature
- Have communication skills sufficient to prepare required reports
- Be able to understand and follow both written and oral instructions
- Be able to complete requirements for college-level classes
- Mechanics must lift or pull objects weighing at least 70 pound
- Possess sufficient mobility, dexterity, and visual acuity to perform aviation maintenance
- Have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information (adaptive equipment acceptable)
- Have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable)
- Must be able to tolerate loud noises and vibrations associated with aircraft engines

## Section 4: Criminal Justice

- Awareness that comprehensive background checks are completed by potential employers for many careers in the criminal justice field. Prospective students with a criminal record or history that may affect their internship placement and/or potential employability are encouraged to discuss their career goals with a department/program advisor prior to admission. Students accepted into the program are expected to maintain the high ethical standards of the criminal justice field or face being removed from the program.
- Awareness of the basic health and fitness requirements for many careers in the criminal justice field. Prospective students with special needs or limitations that may affect their internship placement and/or potential employability are encouraged to discuss their career goals with a department/program advisor prior to admission.
- Ability to exercise and maintain the emotional stability and sound judgment required to function within the criminal justice field, to include the ability to maintain composure during stressful and/or emergency situations. Students accepted into the program are expected to maintain the high standards of the criminal justice field or face being removed from the program.
- Ability to understand and follow written instruction and/or verbal direction.
- Ability to communicate verbally as a student in classes, and later as a professional on an individual basis and to large groups in stressful, emergency situations.
- Sufficient verbal and language skills to: communicate verbally, in an effective and efficient manner, with a wide variety of people; solicit information from individuals, e.g., questioning of victims or interrogation of suspects; and to convey information clearly and accurately.
- Sufficient writing ability to formulate written reports and draft official documents.
- Ability to demonstrate and maintain both organizational and time management skills, to include the responsibility to consistently attend and participate in classes, field trips, and internships.

## Section 5: Electronic Engineering Technology

- Have command of the English language
- Have reading comprehension skills sufficient to read and comprehend manuals and textbooks
- Have communication skills sufficient to prepare required reports
- Be able to understand and follow both written and oral instructions

- Be able to complete requirements for college-level classes
- Possess sufficient mobility, dexterity, and visual acuity to do computer and electronic installations, wiring, and repair
- Read meters, gauges, and other electronic measuring devices
- Judge distance and space relationship of objects
- Distinguish basic colors for determining component values
- Examine computer hardware components and software programs for diagnosis and repair
- Calculate electrical values (voltage, current, resistance)
- Work cooperatively with partners and groups

## Section 6: Computer Sciences (networking, code development and data analytics)

- Have command of the English language
- Have reading comprehension skills sufficient to read and comprehend college textbooks
- Have communication skills sufficient to prepare required reports
- Be able to understand and follow both written and oral instructions
- Be able to complete requirements for college level classes
- Have the ability to communicate information and ideas to others.

## Section 7: Human Services

- Ability to communicate verbally as a student in classes, and later as a professional in individual and group counseling situations
- Sufficient verbal skills and language to: Collaborate with a wide variety of helping professionals in clinical, societal and professional areas; deliver accurate and required information; and to search for information, e.g., questioning
- Sufficient writing ability to formulate written assessment, charting notes, reports, etc.
- Ability to sustain cognitive integrity in areas of short and long-term memory, areas of written documentation and follow-through of responsibilities
- Ability to concentrate on the execution of treatment plans, assigned skills and tasks as well as the integration and communication of this work for both short and long-term periods of time
- Ability to work in settings that may lend themselves to frequent interruptions and immediate crisis response management

- Ability to cope with a variety of stressors, including people- place occurrences, and demonstrate safe and required care for groups and individuals
- Ability to secure transportation to practicum sites and classes
- Ability to consistently attend and participate in classes
- Ability to demonstrate and maintain organizational skills, time management and professional respect. Ability to adhere to and practice the Human Service Department's ethical guidelines
- A State Police criminal check is the responsibility of students and may be required for clinical fieldwork and / or employment upon the request of an agency. Applicants who have had difficulty with the law depending upon the nature of the problem may not be employable or even eligible for fieldwork. Applicants need to discuss these matters in an interview with the Department Chair to determine future direction.

## Section 8: Mechanical Design Technology

- Have a high school degree or equivalent
- Have command of the English language
- Have reading comprehension skills sufficient to read and comprehend service literature
- Have communication skills sufficient to prepare required reports
- Be able to understand and follow both written and oral instructions
- Be able to complete requirements for college level classes
- Have sufficient vision to distinguish colors and information from a computer screen (adaptive equipment acceptable)
- Have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable)
- Have the ability to stand for extended periods of time and physical strength to lift parts and equipment required for the program.
- Have sufficient fine motor dexterity to perform manual skills related to Mechanical Design Technology
- Be able to work in a variety of environments including but not limited to engineering, laboratory, and electronic machining.

## Section 9: Nursing

Technical standards have been established to inform the student of minimum standards to satisfactorily function in the program and ultimately in the profession. The College must ensure that patients/ clients of clinical affiliates are not placed in jeopardy by students during learning experiences. Therefore, students in

service learning and clinical experiences must demonstrate sufficient emotional stability to withstand the stress, uncertainties, and rapidly changing circumstances that characterize the responsibilities of patient/ client care. Furthermore, the student is expected to have the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member, and establish rapport and maintain sensitive interpersonal relationships with patients, their families, agency staff, faculty, and classmates.

Applicants must be in good physical and mental health to meet program objectives. Technical Standards information is also available in the Technical Standards section of this catalog.

1. Sufficient hearing to assess patient needs, physiological signs, understand instructions, identify emergency signals, assess body functions, and engage in telephone conversation.
2. Sufficient visual acuity to observe patients, manipulate equipment, interpret data, ensure a safe environment, identify color changes, read fine print/writing, and do fine calibrations.
3. Sufficient speech and language ability to express, comprehend, and exchange information and ideas in English verbally, nonverbally, and in writing, and to interact clearly and logically with patients, family members, physicians, nurses, faculty, peers, and other ancillary medical personnel.
4. Sufficient tactile ability to assess pressure, temperature, position, vibration, and movement.
5. Ability to work with frequent interruptions, to respond appropriately in emergencies or unexpected situations, and to cope with extreme variations in workload and stress levels.
6. Sufficient emotional intelligence to exhibit empathy and compassion, to maintain productive relationships in classroom and clinical settings, and to integrate direction, instruction, and criticism into behavioral changes.
7. Sufficient strength, endurance, and motor coordination to perform the following physical activities: participation in lengthy classroom activities; fine and gross motor skills to carry out procedures; ability to safely and frequently handle, lift, and/ or carry equipment and patients up to thirty pounds; stamina to complete an eight to twelve hour work shift; and ability to perform CPR.
8. Sufficient information technology access and skills to complete assignments according to program standards.
9. Applicants with latex allergies are advised to seek professional medical consultation.

## Section 10: Early Childhood Education

Technical Standards have been established to provide guidance to students as to skills and abilities required to function successfully in the program and ultimately in the Early Childhood Education profession. The Early Childhood Education Department will seriously consider all academically qualified candidates provided that the technical standards can be met with or without reasonable accommodations. No essential technical standards will be waived or modified.

Students in Early Childhood Education program must have sufficient strength, stamina, motor coordination and sensory capabilities to perform the following:

- Standing for sustained periods of time, walking, running, bending, and sitting on the floor to meet children's needs and accomplish tasks;
- Frequent lifting, moving and transferring children, especially infants and toddlers;
- Sufficient visual and hearing acuity to ensure a safe environment; and ability to respond quickly to children, colleagues, and professional partners in the event of emergency;
- Sufficient verbal ability to express and exchange information and ideas as well as to interpret important instructions to children, colleagues, professional partners, and parents;
- Sufficient skills in written expression to accurately record children's daily progress and milestones as well as medications administered, accident and suspected child abuse/neglect reports, etc.;
- Ability to work with frequent interruptions, to respond appropriately to unexpected situations including situations requiring immediate crisis response and role responsibility exchange; to demonstrate safe and required care for children, families, colleagues and the workplace as a whole; and to cope with substantial variations in workload and stress levels;
- Ability to consistently attend and participate in classes and practice in a timely manner;
- Ability to demonstrate and maintain organizational skills and time management in classes and at the practicum site;
- Ability to respond to children's personal needs, including changing diapers, in a manner that safeguards the health and safety of the student, children, and staff;
- Ability to work in a professional and respectful manner with a diverse range of children including children of different races, cultures, religions, and ethnicities as well as children with a wide range of disabling conditions;
- Ability to maintain proper boundaries in both the school and home environments; and

- Ability and disposition to adhere to and practice the Code of Ethical Conduct set forth by the National Association for the Education of Young Children.

## Section 11. Life Sciences Courses

Students who are unable or unwilling to follow standards may not be admitted into certain classes or may be removed if identified after classes start.

- Read and Comprehend scientific textbooks and materials, including laboratory documents
- Communicate with lab partners and professor. Be able to assimilate information, especially quantitative information, either in spoken or printed format.
- Follow the lab safety protocol, including requirements for clothing and footwear, eye protection and gloves.
- Possess sufficient mobility, dexterity and visual acuity to handle and use efficiently and safely for oneself and for others: flame burner, chemicals, live bacteria/organisms, bodily fluids, and other sensitive and potentially hazardous materials or equipment.
- Engage in active participation in conducting experiments, both individually and with lab partners.
- Gather and analyze the results of laboratory exercises. Make and formulate conclusions from the collected data using deductive and inductive reasoning.
- Draw, comprehend and interpret the graphs and tables made based on collected data.
- Exercise effective time management skills, especially during the assigned lab periods by appropriate preparation and follow up.
- Ability to follow written instructions with minimal supervision, including experimental procedures (especially experimental procedures in biological sciences). Ability to perform lab functions safely, meet deadlines, and work in a project-based environment, both individually and in collaboration with others.
- Have the physical strength and awareness to handle laboratory equipment with enough care and conduct the practical aspects of experiments efficiently.

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## Student Calendar 2022-2023

### Fall Semester August 29, 2022 – December 17, 2022

Nashua Community College  
2022/2023 Academic Calendar  
Fall Semester August 29, 2022 – December 17,

#### 2022

- August 12: 180 and 216 Day Staff Return
- August 15: 10 and 11 month Faculty Return
- August 15: Tuition Due for Fall 2022 Semester
- August 29: Fall Semester Classes Begin
- August 30: Last Day to Add a First-half Semester Course
- September 5: **Labor Day Holiday**
- September 6: Last Day to Add **Full Semester Classes**
- September 6: Last Day to Withdraw with a Full Refund from First-half Semester Courses
- September 12: Last Day to Withdraw with a Full Refund (Full Semester Courses)
- September 16: Last Day to Resolve "I" Grades from Summer Term
- September 30: Last Day to Withdraw with a Grade of "W" from First-half Semester Courses
- October 11: **Symposium – No Day Classes – Evening Classes will run as scheduled**
- October 14: Last Day to Withdraw with a Grade of "WP/WF" from First-half Semester Courses
- October 24: Second-Half Semester term begins
- October 24: Final Grades (First-half Semester) due to Registrar's Office no later than 10 a.m.
- October 25: Last Day to Add Second-half Semester Course

**Nashua Community College  
2022/2023 Academic Calendar  
Fall Semester August 29, 2022 – December 17,  
2022**

October 31:	Last Day to Withdraw with a Full Refund from Second-half Semester Courses
November 3:	Last Day to Withdraw with a Grade of "W" (Full Semester Courses)
November 11:	<b>Veterans' Day Holiday Observed – No classes</b>
November 23:	<b>No Evening Classes</b>
November 24-26:	<b>Thanksgiving – No classes (including Saturday Classes)</b>
November 28:	Last Day to Withdraw with a Grade of "W" from Second-half Semester Courses
December 9:	Last Day to Withdraw with a Grade of "WP/WF" (Full Semester Courses)
December 9:	Last Day to Withdraw with a Grade of "WP/WF" from Second-half Semester Courses
December 12-15:	Finals
December 17:	Fall Semester Ends
December 19:	<b>Fall Semester Grades Due to Registrar's Office no later than 10 a.m.</b>
December 19:	Last Day of Faculty Responsibility for 10 and 11 Month Faculty for Fall Semester
December 21:	Last Day of Responsibility for 180 and 216 Day Staff for Fall Semester
December 21:	Final grades available for viewing on Student Information System
Dec 26 - Dec 31:	<b>Winter Recess – College closed</b>

## Spring Semester January 17, 2023 – May 6, 2023

**Nashua Community College  
2022/2023 Academic Calendar  
Spring Semester January 17, 2023 – May 6, 2023**

January 2:	<b>New Year's Day Holiday Observed – Offices Closed</b>
January 3:	180 and 216 Day Staff Return
January 3:	Winter Session Begins
January 3:	Last Day to Withdraw with a Full Refund from Winter Session Courses
January 3:	Tuition Due for Spring 2023 Semester
January 4:	10 Month and 11 Month Faculty Return
January 9:	Last Day to Withdraw with a Grade of "W" from a Winter Session Course
January 12:	Winter Convening
January 16:	<b>Martin Luther King Holiday/Civil Rights Day</b>
January 17:	Spring Semester Classes begin
January 18:	Last Day to Add a First-half Semester Course
January 23:	Last Day to Add <b>Full Semester Classes</b>
January 23:	Last Day to Withdraw with a Full Refund from First-half Semester Courses
January 30:	Last Day to Withdraw with a Full Refund (Full Semester Courses)
February 3:	Last Day to Resolve "I" Grades from Fall Term

**Nashua Community College  
2022/2023 Academic Calendar  
Spring Semester January 17, 2023 – May 6, 2023**

February 17:	Last Day to Withdraw with Grade of "W" from First-half Semester Courses
February 20:	<b>Presidents Day Holiday – No Classes</b>
March 3:	Last Day to Withdraw with Grade of "WP/WF" from First-half Semester Courses
March 13-18:	<b>Spring Break</b>
March 14:	Final Grades (First-half Semester) due to Registrar's Office no later than 10 a.m.
March 20:	Registration Opens for Summer and Fall 2023 Semesters and Spring 2024 Semester
March 20:	Second-Half Semester term begins
March 21:	Last Day to Add Second-half Semester Course
March 27:	Last Day to Withdraw with a Full Refund from Second-half Semester Courses
March 27:	Last Day to Withdraw with a Grade of "W" (Full Semester Courses)
April 17:	Last Day to Withdraw with a Grade of "W" from Second-half Semester Courses
April 28:	Last Day to Withdraw with a Grade of "WP/WF" (Full Semester Courses)
April 28:	Last Day to Withdraw with a Grade of "WP/WF" from Second-half Semester Courses
May 1-4:	Finals
May 6:	Spring Semester Ends
May 8:	<b>Spring Semester Grades Due to Registrar's Office no later than 10 a.m.</b>
May 10:	Final grades available for viewing on Student Information System
May 19:	Graduation (Time TBD)
May 15:	Last Day of Responsibility for 10 Month Faculty for Spring Semester
May 17:	Last Day of Responsibility for 180 Day Staff for Spring Semester
May 29:	<b>Memorial Day Holiday – Offices Closed</b>
June 9:	Last Day to Resolve "I" Grades from Spring 2023
July 6:	Last Day of Responsibility for 11 Month Faculty

# Degrees & Certificates

## Accounting

### Business Administration: Accounting

#### Degree Type

Associate in Science

The mission of the Department of Business at Nashua Community College is to provide a variety of degrees and professional certificates that respond to the needs of local and regional employers, while maintaining academic integrity. Degrees, certificates, and courses are designed to provide students with the opportunity to learn skills, theories, and practices that prepare students to be successful in business endeavors. Additionally, degrees, certificates, and courses are designed to fulfill the academic requirements to allow students to transfer into a variety of bachelor's degree programs.

The Associate in Science Degree in Business Administration in Accounting offers a mix of both applied and theoretical courses. Specifically, the Accounting program is designed to provide students with the accounting knowledge and skills required to confidently pursue a career in the accounting field.

Students enrolled in this program will participate in a comprehensive learning experience through the challenges of increasingly complex levels of accounting study. In addition, students will have the opportunity to further enhance and master their accounting skills by selecting an accounting elective or by gaining real world experience through participation in an accounting internship program. To ensure that students are exposed to, and are familiar with, automated accounting software used in business, Accounting Information Systems is the capstone course for this degree program. Upon graduation, students will be well prepared for successful employment in this dynamic profession. For students planning to continue their education beyond the associate degree, the Accounting program is also designed to provide transferability to a college or university that offers a bachelor's degree in Accounting, Accounting/ Finance or Business Administration Accounting.

Upon the completion of the degree in Business Administration: Accounting, graduates will be able to:

1. Describe the conceptual framework of accounting as conveyed in FASB Statements of Financial Accounting Concepts.
2. Demonstrate a sound working knowledge of authoritative accounting regulation, accounting terminology, concepts and theory through the application of U.S. Generally Accepted Accounting Principles as documented in FASB Accounting Standards Codification.
3. Demonstrate confident ability to prepare, analyze, and communicate all Financial Statements including disclosure notes, optional operating summaries and management discussion items required for complete, accurate and timely reporting to both external and internal interested parties.
4. Identify and differentiate between alternative forms of business organizations, including how to properly journalize and report business transactions unique to each.
5. Prepare, analyze, monitor and control both static and dynamic budgets.
6. Explain the uses of Cost Accounting, its relationship to Financial Accounting, and the concept of Standard Costs including variance analysis, and the types of cost systems used in business.
7. Apply fundamental accounting principles in a computerized environment using automated accounting software.
8. Demonstrate the ability to reason logically and think critically as evidenced through successful completion of increasing complex levels of accounting study and all other degree requirements.
9. Demonstrate effective writing and communication skills through research of current accounting topics.
10. Incorporate basic math skills to interpret and analyze both quantitative and qualitative data found in Financial Statements and other reporting summaries.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.



## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
BUS101N	Introduction to Business	3	0	3
BCPT208N	Spreadsheets: EXCEL	2	2	3
ENGL101N	College Composition	4	0	4

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT102N	Financial Accounting II	4	0	4
BUS110N	Principles of Management	3	0	3
	English/Communications			3
	Quantitative Literacy			4

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECON201N	Microeconomics	3	0	3
ACCT201N	Intermediate Accounting I	4	0	4
BUS240N	Business Law	3	0	3
	Humanities/Fine Arts or Global Awareness			3
	Business Elective			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT202N	Intermediate Accounting II	4	0	4
ACCT206N	Cost Accounting	4	0	4
ACCT214N	Accounting Information Systems: Accounting Program Capstone Course	3	0	3
	ACCT290N or Open Elective			3
	Science Core Requirement			4
<b>Total Credits</b>				<b>62</b>

## Accounting

### Degree Type

Certificate

The Accounting Certificate programs are designed to provide the basic accounting skills required for clerical and entry-level positions, or to improve the existing accounting skills of individuals who seek promotional opportunities. Credits earned in the Certificate programs can be applied to the Associate in Science in Business Administration curriculum with a specialization in Accounting.

## Accounting Certificate I

### Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
BCPT119N	Software Applications	2	2	3
ACCT102N	Financial Accounting II	4	0	4
BCPT208N	Spreadsheets: EXCEL	2	2	3

## Accounting Certificate II

### Spring Semester

(Prerequisite: Completion of Accounting Certificate I)

Item #	Title	Class Hours	Lab Hours	Credits
ACCT201N	Intermediate Accounting I	4	0	4
ACCT214N	Accounting Information Systems: Accounting Program Capstone Course	3	0	3
ACCT202N	Intermediate Accounting II	4	0	4
ACCT206N	Cost Accounting	4	0	4

## Accounting Certificate III

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
ACCT102N	Financial Accounting II	4	0	4
BUS110N	Principles of Management	3	0	3
BCPT208N	Spreadsheets: EXCEL	2	2	3
ACCT201N	Intermediate Accounting I	4	0	4
ACCT202N	Intermediate Accounting II	4	0	4
ACCT206N	Cost Accounting	4	0	4
	Quantitative Literacy			4
<b>Total Credits</b>				<b>15-30</b>

## Addiction Recovery

### Addiction Recovery Support Worker

Degree Type

Certificate

#### Courses

Item #	Title	Class Hours	Lab Hours	Credits
HSV111N	Introduction to Human Services	3	0	3
PSYC101N	Introduction to Psychology	3	0	3
PSYC201N	Human Growth & Development	3	0	3
HSV123N	Supportive Communication Skills	3	0	3
PSYC240N	Drugs and Alcohol	3	0	3
HSV210N	Introduction to Addiction Recovery Support Work	3	0	3
<b>Total Credits</b>				<b>18</b>

## Automotive

### Automotive Technology

Degree Type

Associate in Science

Automotive Technology is a two-year associate degree program that is designed to combine automotive technical training and academic course work to provide the student with the skills and knowledge needed for an exciting and rewarding career in the automotive service industry. While enrolled in the program, students will study the theory of

operation of the automotive systems including electrical, brakes, steering and suspension, automatic and manual transmissions, heating and cooling, engine performance, and engine repair. Engine Repair is the capstone course for this degree program.

Each course includes an automotive lab that allows the students to apply and build their knowledge and skills by performing work on vehicles with “real life” problems in a “real shop” atmosphere. We accomplish this by completing repairs on customer vehicles in need of repair work covered in each course. This high tech training combined with the academic coursework and “hands-on” experience not only prepares the student to be employed in the automotive field, but also prepares the student to take the ASE (Automotive Service Excellence) technician certification exams.

Graduates of the program will satisfy an industry need for well-educated and technically trained people.

Features of the program include:

- This program is Master Automobile Service Technology (MAST) Accredited by the Automotive Service Excellence Education Foundation
- Highly trained ASE Master Certified Instructors
- Modern facility with state-of-the-art equipment

Job opportunities include: Dealership technician, Independent shop technician, auto part sales person, service writer, powersports technician, tuner and performance shops.

In addition to the general admissions requirements, the Automotive Technology applicants should be aware of the following criteria:

1. A minimum of one year of high school Algebra I is recommended.
2. Basic skills in written English are required.
3. A basic automotive tool kit and roll cabinet are required. A copy of the required tool list is available on the college website. The major tool manufacturers offer substantial discounts to enrolled students. The College hosts a “Tool Day” on campus in late August for students needing tools or tool kits. Depending on the tool manufacturer, approximate tool kit cost is between \$3,500 and \$6,000 (prices subject to change).
4. Students are expected to possess a good work ethic and a strong desire to learn.
5. A valid driver’s license is required to be accepted into the program. It is recommended students be able to drive a manual transmission vehicle.

Students should familiarize themselves with the Industry and Transportation Department General Education Policies located in the General Education Policies section of this Catalog.

Technical Standards: Please refer to Technical Standards for details regarding this program.

Upon the completion of the degree in Automotive Technology, graduates will be able to:

1. Evaluate, diagnose, and repair various automotive systems using ASE guidelines.
2. Use technology and basic scientific principles for research and problem solving.
3. Employ effective written and oral communication skills.
4. Employ effective technical writing skills.
5. Utilize mathematical logic and analysis for problem solving.
6. Understand the connections between individuals and society.
7. Have the ability to achieve ASE Master Certification.
8. Perform reading skills at a college level.
9. Demonstrate effective interpersonal skills.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO106N	Internal Combustion Engine	2	3	3
AUTO113N	Automotive Electricity & Wiring	2	3	3
AUTO121N	Automotive Service & Maintenance	2	2	4
ENGL101N	College Composition	4	0	4
	Quantitative Literacy			4

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO114N	Automotive Suspension & Steering	2	4	4
AUTO122N	Automotive Brake Systems	2	4	4
AUTO185N	Automotive Engine Performance I	2	4	4
	English/Communications			3

## Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO190N	Automotive Technology Co-Op	0	12	2

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO205N	Advanced Automotive Electricity & Electronics	2	2	4
AUTO226N	Automotive Power Trains	2	4	4
AUTO227N	Automatic Transmissions	2	4	4
PHYS101N	Physical Science I	3	2	4

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO215N	Engine Performance II	2	2	4
AUTO221N	Automotive Heating & Air Conditioning	2	2	4
AUTO228N	Automotive Engine Repair: A Capstone Course	2	6	4
	Behavioral Social Science or History/ Political Science			3
	Humanities/Fine Arts or Global Awareness			3
<b>Total Credits</b>				<b>69</b>

## Automotive Technology

### Degree Type

Associate in Science

The Associate of Science degree in Automotive Technology – Mazda Pathway provides the technical training and academic course work needed to build a rewarding career.

Our two-year degree program features hands-on automotive lab experience working on actual automotive problems in a real shop atmosphere. This “live work” approach lets students apply skills by performing work on vehicles needing repair. High-tech training is grouped with course work that explores the operation of automotive systems and engine repair, including; electrical, brakes, steering and suspension, automatic and manual transmissions, heating and cooling,

and engine performance. Along the way you will receive individual instruction from our experienced faculty and enjoy a small class size. All Instructors are ASE master certified with L1 Advanced diagnostic certification. As a graduate, you will be prepared to take the Automotive Service Excellence (ASE) technician certification exam.

The Mazda Pathway: The Mazda Automotive Student Training (MAST) connects schools and students with Mazda dealers to create a Mazda-supported technician career path.

## HOW TO ENROLL IN THE MAZDA PATHWAY (MAST)

Students enroll as an automotive student and go through the first semester with peers in the automotive technology program. As long as the student maintains a 2.5 GPA or higher, they begin the MAST pathway during the second semester.

## MAST

During the spring semester, the MAST online training prepares students to become a Certified Technician before summer. Once they are

a Certified Technician, the student is authorized to work in a Mazda dealership doing oil changes, tire rotation; and similar basic technician work.

- Summer Co-op: As a Certified Technician, the Automotive Technology – Mazda Pathway students will join a paid Mazda Internship the summer between their first and second year in the program.
- Fall, Senior Year: MAST students will take additional online, self-paced training modules like the first year. These will need to be completed by the end of the spring semester of their senior year to earn a Senior Technician status. MAST students will also complete specific hands-on tasks in their advanced electrical course this semester.
- Spring, Senior Year: MAST students will complete online, self-paced training modules, and additional hands-on tasks in their engine performance class.

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**Total Credits** **0**

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## Automotive Service and Repair

**Degree Type**  
Certificate

### Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO106N	Internal Combustion Engine	2	3	3
AUTO113N	Automotive Electricity & Wiring	2	3	3
AUTO121N	Automotive Service & Maintenance	2	2	4

### Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AUTO114N	Automotive Suspension & Steering	2	4	4
AUTO122N	Automotive Brake Systems	2	4	4
AUTO185N	Automotive Engine Performance I	2	4	4
<b>Total Credits</b>				<b>22</b>

## Aviation

### Aviation Technology

**Degree Type**  
Associate in Science

The Associate of Science Degree in Aviation Technology prepares students for professional careers in aviation maintenance. Graduates may seek employment with airlines, fixed base operators, or aircraft manufacturers.

Nashua Community College is an FAA approved training facility. Students who complete this program will be prepared to apply for the FAA oral, written, and practical exams for the Airframe and Powerplant Technician Certificate.

The Aviation Technology program places major emphasis on the study of actual aircraft, structures, and powerplants and related systems. The 21-month curriculum includes one summer session and covers a wide variety of subjects concerned with airplanes: reciprocating engines, turbines, fuel systems, propellers, ignition, electrical systems, and hydraulic systems. A great deal of reading is required, as well as the ability to interpret FAA regulations and manufacturer's technical specifications.

In addition to the general admission requirements, Aviation Technology applicants should be aware of the following criteria:

1. Excellent English skills in reading, writing, speaking and understanding are required.
2. High school courses such as physics, electronics, and computer programming are recommended.
3. Students will be required to purchase approximately \$1,300 of tools upon entrance to the program.

Technical Standards: Please refer to the Technical Standards section in this catalog for details regarding this program.

Upon completion of the degree in Aviation Technology, graduates will be able to:

1. Perform maintenance and inspections on aircraft using FAA and manufacturers' instructions.
2. Perform maintenance on aircraft structures using FAA and manufacturers' instructions.
3. Perform maintenance on aircraft powerplants using FAA and manufacturers' instructions.
4. Inspect and repair aircraft composite structures using FAA and manufacturers' instructions.
5. Communicate effectively both orally and in writing.
6. Demonstrate legal and moral judgment when supervising others.
7. Demonstrate positive work ethics, integrity, and knowledge of work skills.
8. Exercise a desire to continue professional development and lifelong learning.
9. Successfully pass the FAA airframe and powerplant certification examination.
10. Find employment directly related to the field of study.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
AVTN101N	Maintenance Forms & Records	2	3	3
AVTN102N	Airframe Structures I	2	6	4
AVTN108N	Aviation Drafting & Blueprint Reading	3	0	3
	Quantitative Literacy			4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AVTN103N	Airframe Structures II	3	6	5
AVTN104N	Materials and Processes	2	3	3
AVTN106N	Aviation Electronics	2	2	3
PSYC130N	Human Relations	3	0	3
	English/Communications			3

## Summer Semester (9 Weeks)

Item #	Title	Class Hours	Lab Hours	Credits
AVTN105N	Aircraft Systems	3	3	4
AVTN202N	Airframe Electrical Systems	2	4	3
AVTN203N	Hydraulics & Pneumatics	3	5	5

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
AVTN107N	Digital Logic	2	2	3
AVTN204N	Assembly & Rigging	2	6	4
AVTN206N	Reciprocating Engines I	3	6	5
AVTN208N	Engine Systems	2	3	3
AVTN209N	Aircraft Propellers	2	3	3
PHYS101N	Physical Science I	3	2	4

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
AVTN207N	Reciprocating Engines II	3	6	5
AVTN210N	Turbine Engine & Systems	3	3	4
AVTN211N	Carburetion & Fuel Systems	2	3	3
AVTN212N	Engine Electrical Systems	2	6	4
	Humanities/Fine Arts or Global Awareness			3
<b>Total Credits</b>				<b>88</b>

# Biology

## Biological Sciences

### Degree Type

Associate in Science

### Day Program

The Associate of Science Degree in Biological Sciences provides students with the first two years of a bachelor degree in biology in preparation for careers in medicine, healthcare, research, biotechnology, biomedical engineering and education. Students receive a strong foundation in scientific language and methodology, an understanding of the physical world, and how to apply these concepts through working in an inquiry based learning environment. The program is designed with student projects embedded in classes, as well as external research opportunities through grants and internships. Students should have strong reading and math skills, be aware of the extra hours (in the laboratory and at home) it takes to pursue project-based learning, and the advantage of this teaching style for developing critical thinking skills.

Our core courses all meet equivalent standards for transfer to most universities and colleges. However some electives may only be transferred as Discovery Science credit. Students need to work closely with the Program Coordinator while at NCC and decide early which degree and four-year college/university he/she plans to attend to make the advising process more effective.

Technical Standards: Please refer to the Technical Standards section for details regarding this program.

All students in this degree area are required to take BIOL107N or BIOL105N, CHEM130N and 131N, BIOL215N and a class that can fulfill BIOL270N or BIOL280N requirements. All capstone elements must be completed within upper level courses for graduation with AS. Note BIOL105N may not transfer as Biology equivalent everywhere or qualify students for intern opportunities.

\*Students who do not test directly into MATH120N Pre-Calculus may substitute MATH110N Algebra II/Trig for NCC graduation requirements. Note that MATH120N is a pre/co-requisite of CHEM131N General Chemistry II and MATH106N Statistics is a pre/co-requisite of BIOL230N Genetics.

Students with placement test scores greater than MATH120N are encouraged to take MATH210N Calculus I to fulfill MATH requirements for the degree. Upon the completion of the Associate of Science degree in Biological Sciences, graduates will be able to:

1. Communicate effectively and fluently: read with comprehension; listen, clarify and follow directions; speak and write competently. Be able to draw conclusions, present and defend findings.
2. Develop skills in reflection, analysis, logical reasoning, and evaluation to formulate judgments, reach conclusions, and solve problems.
3. Apply appropriate mathematical processes to problems found in the physical and biological science by utilizing quantitative and qualitative data and applying scientific principles and methods.
4. Utilize technology to locate, evaluate, organize, generate data and utilize information accurately and responsibly and draw logical conclusions.
5. Acquire knowledge and skills that can be applied to more effectively function as an informed and responsible citizen.
6. Demonstrate an understanding of the theoretical principles, concepts and their application in a range of disciplines in the physical and biological sciences.
7. Perform and utilize a wide variety of laboratory techniques for determining results in physical and biological sciences.
8. Generate and maintain increasingly sophisticated laboratory documents, including laboratory notebooks and research papers. Graduates will also be able to demonstrate competency of the general education outcomes.

Students must consult an advisor at NCC and chosen transfer college(s) for guidance about course selection. Careful planning is required to ensure that mathematics and science courses will fulfill bachelor degree requirements. Students are encouraged to use open electives to best suit their transfer needs.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
	BIOL107N or BIOL105N			4
CHEM130N	General Chemistry I	3	3	4
ENGL101N	College Composition	4	0	4
	MATH120N or MATH210N			4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	BIOL108N or Science/Math Elective			4
CHEM131N	General Chemistry II	3	0	4
	English/Communications			3
MATH106N	Statistics I	4	0	4

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL215N	Microbiology	3	3	4
	BIOL220N or Science/Math Elective			4
PSYC101N	Introduction to Psychology	3	0	3
	Science/Math Elective			3-4



## Second Semester - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL270N	Advanced Topics in Biology	3	2	3-4
BIOL230N	Genetics	3	3	4
	History/Political Science			3
	Humanities/Fine Arts or Global Awareness			3
	Open Elective or SCIENCE/MATH Elective			3-4
<b>Total Credits</b>				<b>61-64</b>

## Business

### Business Administration: Management

#### Degree Type

Associate in Science

The mission of the Department of Business at Nashua Community College is to provide a variety of degrees and professional certificates that respond to the needs of local and regional employers, while maintaining academic integrity. Degrees, certificates, and courses are designed to provide students with the opportunity to learn skills, theories, and practices that prepare students to be successful in business endeavors. Additionally, degrees, certificates, and courses are designed to fulfill the academic requirements to allow students to transfer into a variety of bachelor's degree programs.

The Associate in Science Degree in Business Administration in Management offers a mix of applied and theoretical courses. The objective of the program is to provide the knowledge students will need for successful business careers.

The program has been designed to expose the student to broad business applications including: Accounting, marketing, management, and comprehensive computer courses, which give the management student valuable skills in this growing field.

Business Management graduates are prepared for immediate career entry into the challenging fields of:

- Wholesaling/distribution
- Retailing
- Sales
- Banking
- Insurance
- Management-trainee positions in business and industry
- Manufacturing

For the student looking to pursue an education beyond the associate degree, this program is designed for easy transfer to bachelor's degree programs.

Upon the completion of the degree in Business Administration, Management graduates will be able to:

1. Demonstrate an appropriate application of contemporary management skills and practices in solving real-life business problems.
2. Demonstrate a working knowledge of labor laws, federal and state rules and policies, as well as an understanding of global differences in these areas to effectively manage a contemporary workforce.
3. Demonstrate an understanding of management theories designed to develop programs to motivate staff.
4. Demonstrate the ability to apply financial management skills to meet organizations objectives, compete effectively, and organize data efficiently.
5. Demonstrate a working knowledge of a variety of software systems, including management information systems, to allow for preparing effective reports that enhance communication with senior level staff, customers, and others.

6. Demonstrate the ability to prepare and present meaningful presentations and reports that relate short-and long-term objectives for a variety of business audiences.
7. Demonstrate the ability to utilize research techniques and analytical skills in evaluating business problems in order to develop problem- solving strategies.
8. Demonstrate an understanding of various ethical principles and their application in various global business scenarios.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
BUS101N	Introduction to Business	3	0	3
BCPT119N	Software Applications	2	2	3
ENGL101N	College Composition	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT102N	Financial Accounting II	4	0	4
BUS110N	Principles of Management	3	0	3
	Science Core Requirement			4
	Behavioral Social Science Core Requirement			3
MATH106N	Statistics I	4	0	4

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS230N	Introduction to Management of Information Systems	3	0	3
ACCT210N	Managerial Accounting	3	0	3
BUS218N	Dynamics of Organizational Behavior			3
	ENGL109N or ENGL103N			3
	Humanities/Fine Arts or Global Awareness			3

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	ECON201N or ECON202N			3
BUS240N	Business Law	3	0	3
BUS204N	Small Business Management: A Capstone Course	3	0	3
BUS201N	Human Resources Management	3	0	3
	BUS290N or Business Elective			3
<b>Total Credits</b>				<b>62</b>

## Business Administration: Marketing

### Degree Type

Associate in Science

The mission of the Department of Business at Nashua Community College is to provide a variety of degrees and professional certificates that respond to the needs of local and regional employers, while maintaining academic

integrity. Degrees, certificates, and courses are designed to provide students with the opportunity to learn skills, theories, and practices that prepare students to be successful in business endeavors. Additionally, degrees, certificates, and courses are designed to fulfill the academic requirements to allow students to transfer into a variety of bachelor's degree programs.

The Associate in Science Degree in Business Administration in Marketing offers a mix of applied and theoretical courses. The objective of the program is to provide the knowledge students will need for successful marketing careers.

The Marketing courses prepare students for entry-level jobs in marketing, for future advancement into marketing management and for entrepreneurial opportunities. The curriculum builds a broad knowledge base in business that includes the latest ideas in marketing thought and practice:

- Marketing research, analysis and application
- Marketing strategies
- Integrated Marketing Communications

Most important, marketing students learn critical people management skills to build solid relationships with their clients. Elective marketing courses also permit individual students to develop a program for their specific interests.

For students looking to pursue an education beyond the associate degree, this program is designed to transfer to bachelor's degree programs.

Upon the completion of the degree in Business Administration, Marketing graduates will be able to:

1. Demonstrate the ability to apply principles of marketing management to problem-solving activities within corporate and small business scenarios.
2. Demonstrate the ability to research, analyze, develop and execute a theoretical marketing plan.
3. Demonstrate the ability to apply sales, promotions, merchandising, selling, and consumer behavior models to domestic and international business scenarios.
4. Demonstrate an understanding of opportunities and effects of integrated promotional efforts
5. Demonstrate an understanding of the importance of relationship marketing.
6. Demonstrate the ability to work cooperatively with team members to solve business problem scenarios.
7. Demonstrate the ability to use inductive and deductive logic in team settings to understand, solve, and present business problem solutions.
8. Demonstrate the ability to work with limited resources of time, money and human capital in developing effective marketing strategies.
9. Demonstrate a working knowledge of ratio analysis, statistical modeling, and quantitative research methods in developing product and pricing strategies to compete effectively through marketing campaigns.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
BUS101N	Introduction to Business	3	0	3
BCPT119N	Software Applications	2	2	3
ENGL101N	College Composition	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS104N	Principles of Marketing	3	0	3
MATH106N	Statistics I	4	0	4
	ENGL109N or ENGL103N			3
	Behavioral Social Science Core Requirement			3
	Science Core Requirement			4

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECON201N	Microeconomics	3	0	3
BUS207N	Sales	3	0	3
BUS206N	Consumer Behavior	2	2	3
BUS213N	Principles of Advertising	3	0	3
BUS215N	Integrated Marketing Communications	3	0	3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS240N	Business Law	3	0	3
BUS210N	Marketing Strategies A Capstone Course	3	0	3
SOC101N	Introduction to Sociology	3	0	3
	BUS294N or XXXXxxxN Business Elective			3
	Humanities/Fine Arts or Global Awareness			3
<b>Total Credits</b>				<b>61</b>

## Business Administration: Small Business Entrepreneurship

### Degree Type

Associate in Science

The mission of the Department of Business at Nashua Community College is to provide a variety of degrees and professional certificates that respond to the needs of local and regional employers, while maintaining academic integrity. Degrees, certificates, and courses are designed to provide students with the opportunity to learn skills, theories, and practices that prepare students to be successful in business endeavors. Additionally, degrees, certificates, and courses are designed to fulfill the academic requirements to allow students to transfer into a variety of bachelor degree programs.

The Associate in Science Degree in Business Administration curriculum in Small Business Entrepreneurship offers a mix of applied and theoretical courses. The objective of the program is to provide the knowledge students will need for successful careers as owners of a small business.

This option should be considered by students who desire to learn the methods and processes of starting a small business enterprise or by those individuals who seek to manage a small company or family-owned business.

Topics of study include:

- Developing the idea
- Describing the business to potential investors
- Preparing a comprehensive Business Plan
- Marketing the idea
- Critical cash flow analysis

For students looking to pursue an education beyond the associate degree, this program is designed to transfer to bachelor degree programs.

Upon the completion of the degree in Business Administration, Small Business Entrepreneurship graduates will be able to:

1. Demonstrate the capability and initiative to identify entrepreneurial opportunities, as well as assessing and evaluating risks by developing a theoretical business plan.
2. Demonstrate the ability to prepare, communicate, and present a business plan to a professional audience.

3. Demonstrate the ability to conceptualize, plan, finance, manage, and grow a mock small business.
4. Demonstrate a working knowledge of research and analytical skills necessary by developing a comprehensive business plan for a successful new business venture.
5. Demonstrate the ability to develop tactical, operational, and strategic plans.
6. Demonstrate the ability to use and understand the basic financial statements according to the generally accepted accounting principles in order to manage the efficient and effective use of company resources.
7. Demonstrate the ability to utilize promotional and public relations concepts, theories and models to develop marketing strategies.
8. Demonstrate the ability to synthesize previous coursework while assessing management strengths and weaknesses of business entities.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
BCPT119N	Software Applications	2	2	3
ENGL101N	College Composition	4	0	4
	Behavioral Social Science Core Requirement			3

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT102N	Financial Accounting II	4	0	4
BUS110N	Principles of Management	3	0	3
BUS104N	Principles of Marketing	3	0	3
	English/Communications			3
MATH106N	Statistics I	4	0	4

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS207N	Sales	3	0	3
	Business Elective			3
BUS213N	Principles of Advertising	3	0	3
BUS240N	Business Law	3	0	3
	Humanities/Fine Arts or Global Awareness			3

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS201N	Human Resources Management	3	0	3
	Business Elective			3
BUS204N	Small Business Management: A Capstone Course	3	0	3
	BUS290N or Open Elective			3
	Science Core Requirement			4
<b>Total Credits</b>				<b>62</b>

**Marketing**  
**Degree Type**  
 Certificate

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
BUS104N	Principles of Marketing	3	0	3
BUS213N	Principles of Advertising	3	0	3
BUS215N	Integrated Marketing Communications	3	0	3
BUS210N	Marketing Strategies A Capstone Course	3	0	3
BUS207N	Sales	3	0	3
			<b>Total Credits</b>	<b>15</b>

## Small Business Management

### Degree Type

Certificate

### (Day/Evening Program)

Small business functions will be studied in detail including financial operations, personnel requirements, management, and marketing.

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
BUS104N	Principles of Marketing	3	0	3
BUS110N	Principles of Management	3	0	3
BCPT119N	Software Applications	2	2	3
			Business Elective	3
BUS201N	Human Resources Management	3	0	3
BUS204N	Small Business Management: A Capstone Course	3	0	3
			<b>Total Credits</b>	<b>22</b>

## Spreadsheet

### Degree Type

Certificate

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
BCPT119N	Software Applications	2	2	3
BCPT208N	Spreadsheets: EXCEL	2	2	3
BUS230N	Introduction to Management of Information Systems	3	0	3
			Quantitative Literacy	4
			<b>Total Credits</b>	<b>17</b>

## Collision Repair

### Collision Repair Technology

#### Degree Type

Associate in Science

The Collision Repair Technology Program is designed to provide students with the skills necessary to enter the collision repair industry. The Collision Repair student will study the theory of repair and actually perform each of the different types of repairs (panel replacement, frame straightening, refinishing, etc.) on damaged vehicles. The Collision Repair Technology Program is Master Certified and accredited by the Automotive Service Excellence (ASE) Education Foundation in the following areas: damage analysis/estimating/ customer service, painting and refinishing, non-structural analysis and repair, structural analysis and repair, and mechanical/electrical components.

The students will work in a controlled, safe environment and have hands-on training on modern equipment including:

- A new heated, down-draft spray booth, mixing room and prep station
- A drive-on frame straightening machine with computerized and mechanical measuring systems
- An on site paint mixing system
- HVLP Spray Equipment

Graduates of this program will satisfy an industry need for well- educated and technically-trained people. Typical positions available in the collision industry include:

- Collision Repair Technician
- Refinish Technician
- Automotive Frame Technician
- Automobile Damage Estimator
- Shop Manager
- Sales Representative
- Automotive Detailer

In addition to the general admission requirements, Collision Repair Technology applicants should be aware of the following criteria:

1. A minimum of one year of high school Algebra I is recommended.
2. Basic skills in written English are required.
3. A basic automotive tool kit and roll cabinet are required. Accepted students needing tools may purchase tool kits at a college-sponsored Tool Day in August at a substantial discount. Approximate tool kit cost to the student is between \$3,000 and \$4,800 depending on the manufacturer. Prices are subject to change.
4. Students are expected to possess a good work ethic and a strong desire to learn.
5. A valid driver's license is required.

Students should familiarize themselves with the Industry and Transportation General Education Policies located in the General Education Policies section of this Catalog

Technical Standards: Please refer to Technical Standards section in this catalog for details regarding this program.

Upon the completion of the degree in Collision Repair Technology, graduates will be able to:

1. Evaluate, diagnose, and repair various automotive systems using ASE guidelines.
2. Use technology and basic scientific principles for research and problem solving.
3. Employ effective written and oral communication skills.
4. Employ effective technical writing skills.
5. Utilize mathematical logic and analysis for problem solving.
6. Understand the connections between individuals and society.
7. Have the ability to achieve ASE Master Certification.
8. Perform reading skills at a college level.
9. Demonstrate effective interpersonal skills.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CRTN101N	Basic Collision Repair	2	4	4
CRTN102N	Introduction to Collision Repair	3	0	3
CRTN105N	Basic Automotive Refinishing	2	4	4
ENGL101N	College Composition	4	0	4
	Quantitative Literacy			4

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CRTN125N	Intermediate Automotive Refinishing	2	4	4
CRTN135N	Mechanical/Electrical Systems I	2	3	3
CRTN140N	Collision Repair Welding	2	3	3
CRTN151N	Intermediate Collision Repair	2	4	4
	English/Communications			3

## Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
CRTN190N	Collision Repair Co-Op Work Experience	0	12	2

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CRTN210N	Structural Analysis and Repair	2	10	6
CRTN235N	Mechanical/Electrical Systems II	2	3	3
PHYS101N	Physical Science I	3	2	4
	Behavioral Social Science or History/ Political Science			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CRTN201N	Advanced Collision Repair	2	6	4
CRTN225N	Advanced Automotive Refinishing	2	6	4
CRTN230N	Estimating and Customer Service: A Capstone Experience	3	0	3
CRTN245N	Mechanical/Electrical Systems III	2	3	3
	Humanities/Fine Arts or Global Awareness			3
<b>Total Credits</b>				<b>71</b>

## Collision Repair Technology

Degree Type  
Certificate

### Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CRTN101N	Basic Collision Repair	2	4	4
CRTN102N	Introduction to Collision Repair	3	0	3
CRTN105N	Basic Automotive Refinishing	2	4	4



## Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CRTN125N	Intermediate Automotive Refinishing	2	4	4
CRTN135N	Mechanical/Electrical Systems I	2	3	3
CRTN140N	Collision Repair Welding	2	3	3
CRTN151N	Intermediate Collision Repair	2	4	4
<b>Total Credits</b>				<b>25</b>

# Communication

## Communications

### Degree Type

Associate in Arts

The Associate in Arts Degree in Communications has been developed to provide the first two years of preparation for a student wishing to complete a bachelor degree with a major in communication, media studies, or journalism.

Students selecting the Communications degree must have strong writing, critical thinking and application skills in order to be successful in this program.

Career tracks for the Communications major include print or broadcast reporting or editing, public relations, advertising, social media and education, among many other choices.

All students in the program are required to meet the requirements of the following courses to remain in the Communications degree: ENGL101N College Composition Composition or ENGL110N Honors Expository Writing (minimum grade of B- required) Note: transfer or Running Start credit requires a minimum grade of B-; comparable CLEP score is 59.

COMM101N Introduction to Media Studies and COMM115N Introduction to Media Writing (minimum grade of B- is required to remain in the Communications program).

Students are encouraged to work closely with their academic advisor while at NCC. An early decision by students as to which four-year college/university they plan to transfer will make the advising process more effective. Students planning to transfer into a Communications program at a four-year institution are encouraged to contact that institution's transfer admission office to review specific curriculum requirements.

A minimum of 60 credits must be earned in the required categories to complete the program of studies. A minimum of 15 credits must be earned at Nashua Community College, and 8 of those 15 credits must be earned in courses at the 200 level.

Upon the completion of the degree in Communications, graduates will be able to:

- Display a professional work ethic as a result of adhering to the principle of objectivity.
- Identify and understand the purpose of various media types.
- Understand the global impact of the media.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
ANTH105N	Ethnography of Work	3	0	3
	Behavioral Social Science Core Requirement			3
MATH106N	Statistics I	4	0	4
POLS102N	American Government & Politics	3	0	3

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
COMM101N	Introduction to Media Studies	3	0	3
	Science Core Requirement			4
ENGL109N	Public Speaking	3	0	3
	Quantitative Literacy			4
	Humanities/Fine Arts or Global Awareness			3

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
COMM115N	Introduction to Media Writing	3	0	3
	Humanities/Fine Arts or Global Awareness			3
	Science Core Requirement			4
	Communications Elective			3
POLS220N	American Politics & Mass Media	3	0	3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Communications Elective			3
	Communications Elective			3
ARTS120N	Introduction to Graphic Design	3	0	3
	Communications Elective			3
COMM285N	Communications Internship			3
<b>Total Credits</b>				<b>61-62</b>

# Computer Networking

## Computer Engineering Technology

### Degree Type

Associate in Science

The Computer Engineering Technology (CET) Program prepares the student to use basic engineering principles and theories of science, engineering, and mathematics to solve technical problems in research and development, install, service, and maintain computers, peripherals, networks, and microprocessor and computer-controlled equipment.

Using modern electronic laboratories, students become familiar with circuit analysis, analog and digital circuit design and analysis, high-level programming, microprocessor/microcontroller programming and interfacing, computer architecture, operating systems and networking basics.

The U.S. Department of Labor's Bureau of Statistics (BLS) reports that one of the top ten best paying jobs for individuals with an associate degree is the Engineering Technician, with positive job growth expected through 2026.

In addition to the general admission requirements, Computer Engineering Technology applicants should be aware of the following criteria:

Completion of high school Algebra I, Algebra II and Geometry are recommended as well as other high school courses such as physics, chemistry, electronics, and computer programming. Basic writing skills in English are required. Accepted students will be required to possess or purchase approximately \$100 of minor accessories.

The educational objectives of the Computer Engineering Technology Associate Degree Program are to provide graduates with the knowledge, techniques, skills, and use of modern tools in computer engineering technology. Graduates have strengths in the building, testing, operation, and maintenance of computer systems and their associated software systems.

The Computer Engineering Technology program prepares graduates to have competence in the following curricular areas:

1. application of electric circuits, computer programming, associated software applications, analog and digital electronics, microcontrollers, operating systems, local area networks, and engineering standards to the building, testing, operation, and maintenance of computer systems and associated software systems; and
2. application of natural sciences and mathematics at or above the level of algebra and trigonometry to the building, testing, operation, and maintenance of computer systems and associated software systems.

Technical Standards: Please refer to Technical Standards for details regarding this program.

At the completion of the degree in Computer Engineering Technology, graduates must demonstrate that they will be able to:

1. apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;
2. design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
3. apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
4. conduct standard tests, measurements, and experiments and to analyze and interpret the results; and
5. function effectively as a member of a technical team.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ELET115N	Introduction to Programming Using C++	2	3	3
ELET121N	Digital Circuits I	2	3	3
ELET131N	Circuit Analysis I	3	3	4
ENGL101N	College Composition	4	0	4
MATH110N	Algebra & Trigonometry	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN101N	Computer Architecture and Operating Systems	2	3	3
ELET132N	Circuit Analysis II	3	3	4
MATH120N	PreCalculus	4	0	4
PHYS130N	Physics I	3	3	4
	PSYC130N or Social Science General Education Core Requirement			3

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI230N	Object Oriented Programming Using: C++	2	2	3
CSCN116N	Networking Basics	2	2	3
ELET250N	Microcontrollers	3	3	4
MATH210N	Calculus I	4	0	4
PHYS131N	Physics II	3	3	4

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN170N	Linux Essentials	2	2	3
	CSCI285N or ELET274N			2-3
ENGL122N	Technical Writing	3	0	3
HUMA230N	Ethics in the Workplace	3	0	3
	<b>Total Credits</b>			<b>65-66</b>

## Computer Networking

### Degree Type

Associate in Science

The Computer Networking associate degree provides a solid foundation to begin or advance in a career in information technology. Additionally, it can serve as a launch point for those who wish to continue on to a bachelor degree. This degree is for those who wish to develop the "hands on" skills that are required to function in a high tech environment. The core courses all integrate conceptual understanding with practical lab applications.

There are three general areas of career preparation:

- Supporting end users with their PCs, peripherals and applications
- Building and maintaining the infrastructure that provides the connectivity between computers and other devices in homes, businesses, and throughout the Internet
- Administering the servers (both Windows and Linux) that host network resources

Part of the core program is the Cisco Networking Academy, which covers all of the requirements to obtain the coveted CCNA (Cisco Certified Networking Associate) certification. This includes extensive lab work with configuration of Cisco routers and switches.

In addition to technical skills, the successful graduates learn the skills required to communicate and interact successfully with end users, customers, colleagues and supervisors.

Technical Standards: Please refer to Technical Standards for details regarding this program.

Upon the completion of the degree in Computer Networking, graduates will be able to:

1. Design, administer and troubleshoot network along with its underlying infrastructure.
2. Use critical thinking skills to solve networking and computer systems problems.
3. Be able to design, assemble, configure and troubleshoot computer hardware including workstations, servers, routers, switches and other networking devices.
4. Install, configure and manage operating system: Windows, Linux/Unix, IOS and other related networking systems.
5. Manage services, user accounts and security of a system.
6. Be familiar with basic programming, scripting and database concepts.
7. Communicate effectively with technical and nontechnical staff.
8. Work well as a member of a team.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
CSCN101N	Computer Architecture and Operating Systems	2	3	3
CSCN104N	Internet of Things	2	2	3
CSCN116N	Networking Basics	2	2	3
	Behavioral Social Science or History/ Political Science			3

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN216N	Switching, Routing, & Wireless Essentials	3	3	4
CSCI120N	Introduction to Scripting - Python	2	2	3
CSCN170N	Linux Essentials	2	2	3
	Elective in Major			3
	Quantitative Literacy			4

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN204N	Administering Windows Servers	2	2	3
CSCN217N	Enterprise Networking, Security and Automation	2	2	3
	English/Communications			3
	Science Core Requirement			4
	Elective in Major			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN210N	Advanced Windows Servers	2	2	3
	Elective in Major			3
	Humanities/Fine Arts or Global Awareness			3
	CSCN290N or CSCN286N or CSCN250N			3
<b>Total Credits</b>				<b>61</b>

## Cybersecurity Networking

### Degree Type

Associate in Science

The Associate in Science Degree in Cybersecurity is designed to provide students with networking skills focused on the network security. It prepares students for entry-level positions as Network Security Specialists. Students will be able to set up and administer basic computer network systems and secure them against outside intrusion. This degree also prepares students to handle security incident responses. Students will be presented with materials necessary for Cisco CCNA Security certification, CompTIA Security+ and introductory elements of (ISC)2 security program.

Upon completion of the degree in Cybersecurity, graduates will be able to:

1. Set up and secure a small to medium-sized network.

2. Recognize the potential security threats facing the modern network.
3. Secure network environment using firewalls, VPNs and other tools.
4. Monitor for signs of intrusion and handle incident responses.
5. Perform configuration on routers, switches, and hardware security appliances.
6. Perform basic system administration including management of system accounts
7. Apply critical thinking skills in order to resolve troubleshooting and security issues.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
CSCN101N	Computer Architecture and Operating Systems	2	3	3
CSCN104N	Internet of Things	2	2	3
CSCN116N	Networking Basics	2	2	3
	Behavioral Social Science or History/ Political Science			3

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN216N	Switching, Routing, & Wireless Essentials	3	3	4
CSCN150N	Fundamentals of Cybersecurity	2	2	3
CSCN170N	Linux Essentials	2	2	3
CSCI120N	Introduction to Scripting - Python	2	2	3
	Quantitative Literacy			4

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN204N	Administering Windows Servers	2	2	3
CSCN211N	Cybersecurity Operations	2	2	3
CSCN217N	Enterprise Networking, Security and Automation	2	2	3
	English/Communications			3
	Science Core Requirement			4

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCN210N	Advanced Windows Servers	2	2	3
CSCN250N	Network Security Analysis	2	2	3
	Elective in Major			3
	Humanities/Fine Arts or Global Awareness			3
<b>Total Credits</b>				<b>61</b>

## Computer Networking

**Degree Type**  
Certificate

This certificate teaches the skills necessary to provide IT support in a network environment. It begins with computers as the end devices in a computer network. Part of this certificate, utilizing curriculum developed by Cisco Systems, teaches

students to design, implement, and maintain the local and wide area network infrastructure. This includes all of the skills necessary to achieve CCENT or CCNA certification. The other courses include the skills to place servers on that infrastructure in order to provide many of the network services that are expected today.

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
CSCN101N	Computer Architecture and Operating Systems	2	3	3
CSCN116N	Networking Basics	2	2	3
CSCN216N	Switching, Routing, & Wireless Essentials	3	3	4
CSCN217N	Enterprise Networking, Security and Automation	2	2	3
CSCN170N	Linux Essentials	2	2	3
CSCN204N	Administering Windows Servers	2	2	3
CSCN210N	Advanced Windows Servers	2	2	3
			<b>Total Credits</b>	<b>22</b>

## Cybersecurity Networking

### Degree Type

Certificate

The field of computer security is growing rapidly. The basis for this certificate will be the existing CISCO Networking Academy program and their Security certification. We will include elements of the (ISC)2 and Comp TIA Security+. Students will be prepared to take jobs in the field of IT System Administration with emphasis on Network Security.

Upon completion of this certificate program students will be able to:

1. Set up and secure a small to medium size network.
2. Recognize the potential security threats facing modern network.
3. Secure network environment using firewalls, VPNs and other tools.
4. Monitor for signs of intrusion.
5. Perform configuration on routers, switches, and hardware security appliances.
6. Perform basic system administration, including management of system accounts.
7. Apply critical thinking skills in order to resolve troubleshooting and security issues.

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
CSCN116N	Networking Basics	2	2	3
CSCN150N	Fundamentals of Cybersecurity	2	2	3
CSCN170N	Linux Essentials	2	2	3
CSCN204N	Administering Windows Servers	2	2	3
CSCN210N	Advanced Windows Servers	2	2	3
CSCN216N	Switching, Routing, & Wireless Essentials	3	3	4
CSCN217N	Enterprise Networking, Security and Automation	2	2	3
CSCN250N	Network Security Analysis	2	2	3
			<b>Total Credits</b>	<b>25</b>

# Computer Science

## Computer Science

### Degree Type

Associate in Science

The Computer Science Curriculum provides a strong foundation for students interested in transferring to a bachelor's degree in computer science or other computer-related fields. The combination of theoretical and applied courses provides the student with the concepts and reinforces them with hands-on experience. The curriculum has been strongly influenced by the Association of Computing Machinery's (ACM) guidelines for associate degrees in software. Students completing this curriculum will have knowledge in the following areas:

- Programming language such as C++ and Java
- Data Structures such as stacks, queues, and linked lists
- Object oriented programming
- Systems Analysis based on UML
- Database design and management
- Overview of basic networking

Technical Standards: Please refer to Technical Standards for details regarding this program.

At the completion of the degree in Software Development, graduates will be able to:

1. Solve problems through the application of appropriate research methods.
2. Apply critical-thinking skills to identify, analyze and solve problems.
3. Communicate software development related information effectively to a diverse audience using visual and written modes.
4. Demonstrate the ability to apply all facets of the software development life cycle during a project.
5. Demonstrate the ability to follow a systematic progression of software development and refinement when designing and developing software for a project.
6. Participate effectively as a member of a software development team.
7. Articulate an understanding of the need for lifelong learning.
8. Demonstrate an understanding of diversity through interaction with project teammates.
9. Develop software programs that reflect the application of up- to-date tools and techniques of the discipline.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
CSCI106N	Introduction to Software & Web Development	3	0	3
CSCI107N	HTML	2	2	3
CSCI161N	Introduction to Programming	2	2	3
	MATH110N or MATH120N or MATH210N			4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI108N	HTML and CSS	2	2	3
CSCI140N	Essentials of System Analysis & Design	2	2	3
CSCI175N	Programming Using C++	2	2	3
MATH170N	Discrete Mathematics	4	0	4
	English/Communications			3



## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI207N	Database Design & Management	2	2	3
CSCI230N	Object Oriented Programming Using: C++	2	2	3
	Science Core Requirement			4
	Elective in Major			3
CSCN116N	Networking Basics	2	2	3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI278N	Data Structures Using C++	2	2	3
	Elective in Major			3
	Behavioral Social Science Core Requirement			3
	Humanities/Fine Arts or Global Awareness			3
	CSCN290N or CSCI285N			3
<b>Total Credits</b>				<b>64</b>

## Full Stack Web Developer

### Degree Type

Certificate

The Full Stack Web Developer Certificate program is designed to prepare students to succeed in web development. The program provides a survey of software and web development, includes thorough coverage of W3C standard HTML and CSS and the fundamentals of graphic design theory. Students are introduced to programming, front-end or client-side web development with JavaScript and back-end or server-side development with PHP. Database design and management are covered in depth.

Upon completion of this certificate program students will be able to:

1. Understand and apply the fundamentals of graphic design
2. Develop and code web pages, as part of websites and web applications
3. Describe the concepts of problem-solving, code development and code organization
4. Define a problem, develop a solution and translate the solution into code
5. Explain how the browser renders web pages
6. Write client- and server-side code, leveraging the advantages of each
7. Design a database schema and use it with server-side code

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
CSCI106N	Introduction to Software & Web Development	3	0	3
CSCI107N	HTML	2	2	3
CSCI108N	HTML and CSS	2	2	3
ARTS120N	Introduction to Graphic Design	3	0	3
CSCI161N	Introduction to Programming	2	2	3
CSCI201N	Client-Side Scripting Using JavaScript	2	2	3
CSCI206N	Server-Side Scripting Using PHP	2	2	3
CSCI207N	Database Design & Management	2	2	3
<b>Total Credits</b>				<b>24</b>

# Criminal Justice

## Criminal Justice

### Degree Type

Associate in Science

The Criminal Justice degree program is designed to prepare students for careers in Law Enforcement, Corrections, Juvenile Justice, the Court system, and Homeland Security. In addition, it also serves as the academic foundation to transfer on to complete a baccalaureate degree. For those already in service, the program provides professional development for promotion or career enhancement purposes. The degree of Associate in Science with a major in Criminal Justice will be awarded upon completion of all requirements. Students with an associate degree in Criminal Justice qualify for employment in various city, county, and state criminal justice agencies, and in the rapidly-growing private industrial security field.

Technical Standards: Please refer to Technical Standards for details regarding this program.

Upon the completion of the certificate in Criminal Justice, graduates will be able to:

1. Employ effective written and oral communication skills.
2. Describe the components of the American criminal justice system, to include their history, functions, processes, and goals.
3. Understand the application of technology within the Criminal Justice System.
4. Understand the causes and effects of crime within our society.
5. Understand the fundamental principles and techniques of criminal investigation.
6. Describe the organization, management, and administration of criminal justice agencies at the local, state, and federal levels.
7. Explain juvenile justice system and the magnitude of juvenile delinquency in the United States.
8. Analyze the different components of the correctional system.
9. Discriminate between the roles of police officers, judges, prosecutors, defense attorneys, juries, and legislators in the application of criminal law.
10. Apply the theories and principles of the Criminal Justice system to their practical application within the components of the system.
11. Display the strong ethical qualities that reflect those within the field.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
CRMJ101N	Introduction to Criminal Justice	3	0	3
CRMJ102N	Criminology	3	0	3
MATH106N	Statistics I	4	0	4
SOCI101N	Introduction to Sociology	3	0	3

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL109N	Public Speaking	3	0	3
	Science Core Requirement			4
CRMJ121N	Criminal Investigation	3	0	3
CRMJ122N	Law Enforcement Organizations	3	0	3
PSYC101N	Introduction to Psychology	3	0	3

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
POLS210N	State and Local Government	3	0	3
CRMJ220N	Juvenile Justice	3	0	3
CRMJ240N	Criminal Law and Prosecution	3	0	3
HUMA230N	Ethics in the Workplace	3	0	3
COMM102N	Principles of Communication	3	0	3

## Second Year - Spring Semester

CRMJ280N Criminal Justice Internship OR CRMJ285N Criminal Justice Senior Project

Item #	Title	Class Hours	Lab Hours	Credits
	Behavioral Social Science or History/ Political Science			3
CRMJ260N	Criminal Procedure	3	0	3
CRMJ265N	Corrections	3	0	3
	CRMJ280N or CRMJ285N			3
<b>Total Credits</b>				<b>60</b>

## Criminal Justice

### Degree Type

Certificate

This certificate is designed to prepare students for careers in Law Enforcement, the Court System, or Corrections. In addition, graduates of the certificate program may continue their education in undergraduate programs in Criminal Justice, Criminology or Homeland Security. For those already in service the program provides professional development for career advancement purposes. Students with a certificate in Criminal Justice qualify for employment in city, county, and state criminal justice agencies, and in the rapidly-growing private industrial security field.

Please note that dropping from a required program course may mean that the student will be out of sequence in program course offerings which may delay graduation. Students who begin the program in the spring semester or who need developmental course support should recognize that it may take longer to complete the program.

It is also important to note that many protective services careers have health and fitness requirements as well as other specific expectations. Individuals who have had difficulty with the law depending upon the nature of the problem may not be employable. Applicants who have any questions should discuss their concerns with an advisor prior to enrolling in this program.

Upon the completion of the certificate in Criminal Justice, graduates will be able to:

- Employ effective written and oral communication skills.
- Describe the components of the American criminal justice system, to include their history, functions, processes, and goals.
- Understand the application of technology within the Criminal Justice System.
- Understand the causes and effects of crime within our society.
- Employ effective technical writing skills.
- Understand the fundamental principles and techniques of criminal investigation.
- Describe the organization, management, and administration of criminal justice agencies at the local, state, and federal levels.
- Display the strong ethical qualities that reflect those within the field.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
CRMJ101N	Introduction to Criminal Justice	3	0	3
CRMJ102N	Criminology	3	0	3
MATH106N	Statistics I	4	0	4
SOCI101N	Introduction to Sociology	3	0	3

## Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL109N	Public Speaking	3	0	3
	Social Science Core Requirement			3
CRMJ121N	Criminal Investigation	3	0	3
CRMJ122N	Law Enforcement Organizations	3	0	3
PSYC101N	Introduction to Psychology	3	0	3
	<b>Total Credits</b>			<b>33</b>

# Culinary Arts

## Culinary Arts

### Degree Type

Associate in Science

The mission of the Culinary Arts Program is to prepare students for employment in commercial and institutional positions in the culinary industry and to provide the foundational skills for those who wish to take their passion for cooking to the next level of expertise, skill and knowledge.

The program is designed to meet current and future needs of the food service industry in which the demand for employment is high, employing more than nine million people annually in the United States. Students enrolled in the Culinary Arts program receive “hands-on” practical lab training paired with traditional academic culinary courses that are aligned with industry needs.

Upon the completion of the degree in Culinary Arts, graduates will be able to:

1. Work effectively in commercial food production environments such as restaurants, hotels and resorts, private clubs and institutional foodservice, catering, and other food-related businesses.
2. Apply skills in communication and interpersonal and sanitation, industry terminology, and leadership.
3. Utilize knowledge in many forms of cookery; hot and cold food preparation, soups and sauces, buffet presentations, dining room service, fundamentals of baking, classical baking and plate presentation and quantity food production.
4. Interpret weights and measurements, calculate and execute standard recipes, and understand and implement cost controls and inventories.
5. Demonstrate appropriate work ethic through proper conduct and dress.
6. Demonstrate the importance of diversity as it relates to food and culture.
7. Identify the benefits of continued professional growth.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## Technical Requirements for Culinary Arts students

### COMMUNICATION

- Communicate effectively and professionally when interacting with peers, faculty, staff, and guests using the English language verbally and in written form.
- Follow verbal and written instructions

- Explain procedures, give directions, describe decisions, demonstrate listening skills, write reports, and follow directions.
- Speak clearly and distinctly.

## PHYSICAL STRENGTH AND STAMINA

- Lift and move without assistance cookware typically found in a commercial kitchen and independently lift and move cookware containing product.
- Lift and move stock and supplies up to 50 pounds.
- Stand and move about kitchen/laboratory for up to eight hours.
- Complete cleaning responsibilities requiring stooping, bending, and climbing.
- Use a hand-held fire extinguisher.
- Lift and safely move pots, pans, stock pots, and small equipment.
- Lift and safely move pots, pans, stock pots containing hot food being prepared according to instructions.
- Lift and move bags and boxes of supplies weighing up to 50 pounds.
- Stand and move about in kitchen and dining areas during food preparation.
- Serve and clear tables where guests are seated.

## MOBILITY AND MOTOR SKILLS

- Move freely, quickly, and safely in a close environment.
- Work in coordination with other students.
- Move supplies between floor and standard height above head.
- Safely manipulate small wares, equipment, and equipment controls.
- Safely pour liquids including hot liquids.
- Safely handle hot foods.
- Perform repetitive tasks required in a commercial kitchen.
- Move from workstation to workstation near other students and equipment.
- Lift containers (bulk and prep) individually and in coordination with other students.
- Lift supplies from floor, pallet or table and place on storage racks.
- Remove supplies from storage racks above head at standard height.
- Hold containers such as pots and bowls while mixing and blending ingredients in those containers.
- Operate machinery and equipment safely and efficiently.
- Safely use knives and other commercial cooking equipment.
- Efficiently use whisking, dicing, and piping skills.

## SENSORY

- Hear voice instructions in a noisy environment.
- Hear equipment alarms.
- Read printed and written instructions and labels.
- Feel product texture
- Distinguish smells and tastes.
- Handle a variety of foods including meat, seafood, and poultry.
- Hear instructor's voice in a noisy kitchen/lab environment.
- Hear food preparation equipment alarms.
- Read temperature and pressure gauges.
- Read ingredients labels.
- Taste and feel product to determine quality and doneness.
- Adjust flavor appropriately.
- Read MSDS documents.

## INTERPERSONAL AND EMOTIONAL

- Work cooperatively with other students and instructors.
- Complete an equitable share of kitchen duties.
- Follow directions of instructors and fellow students.
- Remain calm in a stressful environment.
- Display characteristics of emotional stability.

- Self-manage medical and emotional conditions.

A student must earn a 'C' or better in Culinary Arts classes in order to progress to the next culinary class.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA103N	Culinary Skills and Procedures	1	5	3
CULA135AN	Customer Service I	1	5	3
CULA120N	Fundamentals of Baking	1	4	3
ENGL101N	College Composition	4	0	4
MATH103N	Quantitative Reasoning	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA105N	Food Safety and Sanitation	2	0	2
CULA135AN	Customer Service I	1	5	3
CULA140N	Nutritional Cuisine	2	3	3
CULA210N	Intermediate Food Preparation	1	4	3
CULA225N	Intermediate Baking	1	4	3
ENGL103N	Professional Writing & Presentations	3	0	3

### First Year - Summer Semester

CULA290N: An approved uniform and knife set are required at the start of the program.

Item #	Title	Class Hours	Lab Hours	Credits
CULA290N	Culinary Internship	1	8	3

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA211N	American Regional Cuisine	1	4	3
CULA222N	Classical Cuisine	1	5	3
CULA245N	Menu Development and Cost Controls	2	3	3
PSYC130N	Human Relations	3	0	3
BIOL105N	Biology in Focus: Cellular Basis of Life	3	3	4

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CULA212N	International Cuisine	1	5	3
CULA215N	Garde Manger	1	4	3
CULA230N	Quantity Food Production	1	4	3
CULA236N	Classical Baking and Plate Composition	1	4	3
	Humanities/Fine Arts Core Requirement			3
<b>Total Credits</b>				<b>68</b>

## Data Science

### Data Analytics

#### Degree Type

Associate in Science

The Data Analytics program provides a strong base for students interested in developing skills to collect, organize, analyze, interpret and present data. Students completing the program can pursue employment or a baccalaureate degree in the area of data analytics. The combination of courses in mathematics, computer science, and data analytics provides the student with the necessary knowledge and experience to use large data sets to make data driven decisions and to effectively communicate patterns and relationships. Program content is reinforced with hands on experience, and students will be required to apply course content to applications from business and industry.

Upon completion of this program students will have a strong foundation in computing, mathematics and data science needed to succeed in an entry level data analytics position or to pursue a baccalaureate degree.

TechnicalStandards:Please refer to TechnicalStandardsfordetails regarding this program.

Upon the completion of the degree in Data Analytics, graduates will be able to:

1. Understand the data science life cycle and how it applies across a variety of industries.
2. Efficiently collect and organize data from a variety of sources.
3. Effectively apply statistical tools to identify patterns and relationships in large data sets.
4. Effectively use data mining techniques to make recommendations to address real world problems.
5. Effectively communicate patterns and relationships using a variety of data visualization techniques.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
DATA101N	Introduction to Data Analytics	2	2	3
MATH106N	Statistics I	4	0	4
	CSCI120N or CSCI161N			3
DATA105N	Data Mining	2	2	3

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	CSCI130N or CSCI207N			3
ENGL109N	Public Speaking	3	0	3
DATA120N	Applied Data Analysis	2	2	3
MATH206N	Statistics II	4	0	4
	Behavioral Social Science or History/ Political Science			3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BUS101N	Introduction to Business	3	0	3
MATH210N	Calculus I	4	0	4
	Humanities/Fine Arts or Global Awareness			3
	Science Core Requirement			4

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MATH211N	Calculus II		0	4
DATA205N	Data Visualization	2	2	3
DATA220N	Introduction to Machine Learning	2	2	3
MATH215N	Linear Algebra	4	0	4
<b>Total Credits</b>				<b>61</b>

## Data Analytics

### Degree Type

Certificate

The Certificate in Data Analytics provides a strong base for professionals or students interested in developing skills to collect, organize, analyze, interpret and present data. The combination of courses provides the necessary knowledge and experience to use large data sets to make data driven decisions and to effectively communicate patterns and relationships. Content is reinforced with hands-on experience applying course content to applications from business and industry using current industry accepted computer programs.

Upon the completion of the Data Analytics Certificate, graduates will be able to:

1. Understand the data science life cycle and how it applies across a variety of industries.
2. Efficiently collect and organize data from a variety of sources.
3. Effectively apply statistical tools to identify patterns and relationships in large data sets.
4. Effectively use data mining techniques to make recommendations to address real world problems.
5. Effectively communicate patterns and relationships using a variety of data visualization techniques.

### Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
DATA101N	Introduction to Data Analytics	2	2	3
MATH106N	Statistics I	4	0	4
	CSCI120N or CSCI161N			3
DATA105N	Data Mining	2	2	3

### Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
DATA120N	Applied Data Analysis	2	2	3
	CSCI130N or CSCI207N			3
DATA205N	Data Visualization	2	2	3
DATA220N	Introduction to Machine Learning	2	2	3
	<b>Total Credits</b>			<b>25</b>

## Early Childhood Education

### Early Childhood Education

#### Degree Type

Associate in Science

The Associate Degree and Certificate in Early Childhood Education provide the theoretical studies and practical experiences that prepare the graduate to care for and teach children from infancy through age eight in a variety of early childhood education and care settings. Graduates may be qualified for employment opportunities in child development and child care programs, preschools, nurseries, head start, after school programs, and private kindergartens. Degree graduates may also be eligible for employment as a paraprofessional in the public school setting in kindergarten through third grade. For students looking to pursue an education beyond the associate degree, the degree program is designed to provide transferability to bachelor degree programs in Early Childhood Education. Students work closely with their academic advisor for proper course selection and sequencing to prepare for transferability.

The Early Childhood Education degree and certificate course curriculum follows the standards of the National Association of the Education of the Young Child Degree Standards for Preparing Early Childhood Professionals. The degree also provides general education courses that offer the student the opportunity to develop an understanding and knowledge of concepts and skills that support the development of the educated person. Supervised practicum field



experiences provide direct experience with the young child in an early childhood setting. Future early childhood teachers are encouraged to gain extended practical experience with young children by completing observation experiences offered in many of the courses.

Students in this program are advised that to participate in the practicum field experience, and to gain employment working with young children, they must be free of criminal convictions as required by the NH Bureau of Child Care Licensing and the NH Department of Education. It is now required that students complete the fingerprinting process through State Police or DMV in order to participate in the ECE practicum field experience. The student may incur fees in meeting these requirements. The College must insure that students in the program do not put themselves or children in jeopardy during the practicum field experience

## TECHNICAL STANDARDS

Technical Standards have been established to provide guidance to students as to skills and abilities required to function successfully in the program and ultimately in the Early Childhood Education profession. Applicants who feel they may not be able to meet one or more of the technical standards should contact department faculty to discuss individual cases.

The Early Childhood Education Department will seriously consider all academically qualified candidates provided that the technical standards can be met with or without reasonable accommodations. No essential technical standards will be waived or modified. Information on the Technical Standards for this program is also available in the Technical Standards section of this catalog.

Students in Early Childhood Education program must have sufficient strength, stamina, motor coordination and sensory capabilities to perform the following:

- Standing for sustained periods of time, walking, running, bending, and sitting on the floor to meet children's needs and accomplish tasks;
- Frequent lifting, moving and transferring children, especially infants and toddlers;
- Sufficient visual and hearing acuity to ensure a safe environment; and ability to respond quickly to children, colleagues, and professional partners in the event of emergency;
- Sufficient verbal ability to express and exchange information and ideas as well as to interpret important instructions to children, colleagues, professional partners, and parents;
- Sufficient skills in written expression to accurately record children's daily progress and milestones as well as medications administered, accident and suspected child abuse/neglect reports, etc.;
- Ability to work with frequent interruptions, to respond appropriately to unexpected situations including situations requiring immediate crisis response and role responsibility exchange; to demonstrate safe and required care for children, families, colleagues and the workplace as a whole; and to cope with substantial variations in workload and stress levels;
- Ability to consistently attend and participate in classes and practice in a timely manner;
- Ability to demonstrate and maintain organizational skills and time management in classes and at the practicum site;
- Ability to respond to children's personal needs, including changing diapers, in a manner that safeguards the health and safety of the student, children, and staff;
- Ability to work in a professional and respectful manner with a diverse range of children including children of different races, cultures, religions, and ethnicities as well as children with a wide range of disabling conditions;
- Ability to maintain proper boundaries in both the school and home environments; and
- Ability and disposition to adhere to and practice the Code of Ethical Conduct set forth by the National Association for the Education of Young Children.

NCC reserves the right to amend its technical standards at anytime and impose them on all current students.

Upon the completion of the degree in Early Childhood Education, graduates will be able to:

1. Promote child development and learning: understanding young children's characteristics and needs, the multiple influences on their development and learning; and how to create healthy, respectful, supportive and challenging learning environments;
2. Building family and community relationships: understanding diverse family and community characteristics through respectful, reciprocal relationship and involving them in their children's development and learning;

3. Observe, document, and assess young children to support them and their families: understanding the goals, benefits and uses of various types of and then applying the appropriate assessment tools and approaches to promote positive outcomes for each child as well as to building partnerships with families and other professionals;
4. Use developmentally effective approaches: to understand positive relationships and supportive interactions as the foundation of their work with young children. Know and understand effective strategies and tools for early education, including appropriate uses of technology. Using a broad repertoire of developmentally appropriate teaching /learning approaches. Be able to reflect on own practice to promote positive outcomes for each child;
5. Use content knowledge to build meaningful curriculum: Understand content knowledge and resources in academic disciplines: language and literacy; the arts – music, creative movement, dance, drama, visual arts; mathematics; science, physical activity, physical education, health and safety; and social studies. Know and use the central concepts, inquiry tools, and structures of content areas or academic disciplines. Use own knowledge, appropriate early learning standards, and other resources to design, implement, and evaluate developmentally meaningful and challenging curriculum for each child;
6. Become a professional: Identify and involve oneself with the early childhood field. Know about and uphold ethical standards and other early childhood professional guidelines. Engage in continuous, collaborative learning to inform practice; using technology effectively with young children, with peers, and as a professional resource. Integrate knowledgeable, reflective, and critical perspectives on early education.
7. Engaging in informed advocacy: for young children and the early childhood profession.

1-7 Adapted from the Professional Standards and Competencies for Early Childhood Educators (naeyc.org, 2020)

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

This degree meets requirements for State of New Hampshire DHHS Bureau of Child Development and Head Start Collaboration credential of Teacher Credential Level 5.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
ECE101N	Foundations of Early Childhood Education	3	0	3
ECE102N	Growth and Development of the Young Child	3	0	3
	Quantitative Literacy			4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECE103N	Safe, Healthy & Nutritional Programs for Early Childhood Education	3	0	3
ECE104N	Curriculum for Early Childhood Care & Education	3	0	3
ECE105N	Children with Special Needs & Their Families	3	0	3
PSYC101N	Introduction to Psychology	3	0	3
	BIOL115N or Science General Education Requirement			3-4

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECE190N	Practicum I	1	8	3
ECE200N	Developmental^ Appropriate Programs for Infants & Toddlers	3	0	3
ECE204N	Behavior Guidance & Classroom Management in Early Childhood Education	3	0	3
ECE215N	Creativity and the Young Child English/Communications	3	0	3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECE203N	Emerging Literacy in Early Childhood Education	3	0	3
ECE290N	Early Childhood Education: Capstone Course	1	8	3
ECE230N	The Early Childhood Profession & Professional Portfolio	2	0	2
	History/Political Science			3
	Humanities/Fine Arts or Global Awareness			3
	Behavioral Social Science Core Requirement			3
<b>Total Credits</b>				<b>61-62</b>

## Early Childhood Education: Associate Teacher

### Degree Type

Certificate

This certificate will prepare the student to work directly in the early childhood child care and education environment. The courses in the certificate meet NH Child Care Licensing Requirements as well as provide knowledge in the Core Knowledge areas required for by NHDHHS, Bureau of Child Development and Head Start Collaboration Credential. The course curriculum follows the standards of the National Association of the Education of the Young Child Degree Standards for Preparing Early Childhood Professionals.

Meets requirements for State of New Hampshire credential of Associate Teacher.

### Courses

Item #	Title	Class Hours	Lab Hours	Credits
ECE101N	Foundations of Early Childhood Education	3	0	3
ECE102N	Growth and Development of the Young Child	3	0	3
ECE103N	Safe, Healthy & Nutritional Programs for Early Childhood Education	3	0	3
<b>Total Credits</b>				<b>9</b>

## Early Childhood Education: Lead Teacher

### Degree Type

Certificate

This certificate will prepare the student to work directly in the early childhood child care and education environment. The courses in the certificate meet NH Child Care Licensing Requirements as well as provide knowledge in the Core Knowledge areas required for by NHDHHS, Bureau of Child Development and Head Start Collaboration Credential. The course curriculum follows the standards of the National Association of the Education of the Young Child Degree Standards for Preparing Early Childhood Professionals.

Meets requirements for State of New Hampshire credential of Lead Teacher.

Include 9 credit courses from Associate Teacher Certificate:

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
ECE101N	Foundations of Early Childhood Education	3	0	3
ECE102N	Growth and Development of the Young Child	3	0	3
ECE103N	Safe, Healthy & Nutritional Programs for Early Childhood Education	3	0	3
ECE104N	Curriculum for Early Childhood Care & Education	3	0	3
ECE105N	Children with Special Needs & Their Families	3	0	3
	ECE200N or ECE204N			3
<b>Total Credits</b>				<b>18</b>

## Electronics

### Electronic Engineering Technology

#### Degree Type

Associate in Science

The Electronic Engineering Technology Program concentrates on the use of principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, and maintenance. Through the use of modern electronic laboratories, the student will become familiar with the areas of electronics, including circuit analysis, analog and digital integrated circuits, discrete semiconductor devices, electronic communications, and linear operational amplifier circuits. The student will also become familiar with C++ programming and microcontrollers using assembly language programming.

This program provides students with knowledge of currently established design and laboratory techniques.

The U.S. Department of Labor's Bureau of Statistics (BLS) reports that one of the top ten best paying jobs for individuals with an associate degree is the Engineering Technician, with positive job growth expected through 2026.

In addition to the general admission requirements, Electronics Engineering Technology applicants should be aware of the following criteria:

Completion of high school Algebra I, Algebra II and Geometry are recommended as well as other high school courses such as physics, chemistry, electronics and computer programming. Basic writing skills in English are required. Accepted students will be required to possess or purchase approximately \$100 of minor accessories.

The Electronic Engineering Technology program prepares graduates to have competence in the following curricular areas:

1. the application of circuit analysis and design, computer programming, associated software, analog and digital electronics, and microcomputers, and engineering standards to the building, testing, operation, and maintenance of electrical/electronic(s) systems; and
2. the application of natural sciences and mathematics at or above the level of algebra and trigonometry to the building, testing, operation, and maintenance of electrical/electronic systems.

Technical Standards: Please refer to Technical Standards for details regarding this program.

NCC has a 2+2 agreement with UNH-Manchester which allows graduates to transfer to UNH-M with only 2 more years to complete their Bachelor of Science degree in electronic engineering technology.

\*\*\*Accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

At the completion of the degree in Electronic Engineering Technology, graduates must demonstrate that they will be able to:

1. apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;
2. design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
3. apply written, oral, and graphical communication in well- defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
4. conduct standard tests, measurements, and experiments and to analyze and interpret the results; and
5. function effectively as a member of a technical team.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ELET115N	Introduction to Programming Using C++	2	3	3
ELET121N	Digital Circuits I	2	3	3
ELET131N	Circuit Analysis I	3	3	4
ENGL101N	College Composition	4	0	4
MATH110N	Algebra & Trigonometry	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ELET132N	Circuit Analysis II	3	3	4
ELET141N	Electronics I	3	3	4
ENGL122N	Technical Writing	3	0	3
MATH120N	PreCalculus	4	0	4
PHYS130N	Physics I	3	3	4

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ELET250N	Microcontrollers	3	3	4
ELET241N	Electronics II	3	3	4
HUMA230N	Ethics in the Workplace	3	0	3
MATH210N	Calculus I	4	0	4
PHYS131N	Physics II	3	3	4

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ELET221N	Advanced Digital Circuits	3	3	4
	ELET245N or MATH211N			3-4
ELET274N	EET Capstone Project	1	3	2
	PSYC130N or Behavioral Social Science General Education Core Requirement			3
<b>Total Credits</b>				<b>68-72</b>

## English

### English

#### Degree Type

Associate in Arts

The Associate in Arts Degree in English has been developed to provide the first two years of preparation for a student wishing to complete a bachelor degree with a major in English. Students who choose this program have the opportunity to plan their courses in one of the following focus areas:

- Literature
- Writing (professional and creative)

Students selecting English must have strong writing, critical thinking and application skills in order to be successful in this program. At a four-year transfer institution, the student may elect a major in English, journalism, literature, American studies or writing. Career tracks for an English major include education, writing, editing, reporting, law, publishing, and foreign service, among many other choices. All students in the program are required to complete the following courses:

- ENGL101N College Composition or ENGL110N Honors Expository Writing (minimum grade of C required) (Note: transfer or Running Start credit requires a minimum grade of C; comparable CLEP score is 50)
- ENGL102N College Composition II: Writing About Literature
- ENGL105N Introduction to Literature
- Two semesters of sequential British literature courses (ENGL230N/ENGL231N)
- ENGL241N American Literature: Civil War to Present or
- ENGL215N: Literature by American Women
- ENGL285N Topics in English Studies Seminar

Students are encouraged to work closely with their academic advisor while at NCC. An early decision by students as to the four-year college/university to which they plan to transfer will make the advising process more effective. Students planning to transfer into an English program at a four-year institution are encouraged to contact that institution's transfer admission office to review specific curriculum requirements.

Upon the completion of the degree in English, graduates will be able to:

1. Display analytical skills in their written and oral responses to texts
2. Demonstrate knowledge in research skills, utilizing college-level credible sources
3. Write with precision and clarity
4. Demonstrate an ability to work with peers on collaborative projects
5. Utilize oral and written communication skills
6. Demonstrate a thorough command of MLA style documentation

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

\*\*Suggested Electives for Four-Year Degree Focus: Literature  
ENGL215N / ENGL240N / ENGL241N

## Writing

ENGL103N / ENGL122N / ENGL206N / ENGL235N Speaking:  
ENGL109N

## Communications:

COMM101N, COMM102N, COMM115N, COMM120N, COMM125N, COMM204N, COMM206N, COMM230N

A minimum of 60 credits must be earned in the required categories to complete the program of studies. A minimum of 15 credits must be earned at Nashua Community College, and 8 of those 15 credits must be earned in courses at the 200 level.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
MATH106N	Statistics I	4	0	4
	Behavioral Social Science Core Requirement			3
	Humanities/Fine Arts or Global Awareness			3

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL102N	College Composition II: Writing About Literature	3	0	3
	History/Political Science			3
	Quantitative Literacy			4
	Humanities/Fine Arts or Global Awareness			3
ENGL105N	Introduction to Literature	3	0	3

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Science Core Requirement			4
	Behavioral Social Science or History/Political Science			3
ENGL230N	British Literature Middle Ages to 1800	3	0	3
	ENGL241N or ENGL215N			3
	ENGL/COMM Elective			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Science Core Requirement			4
	Humanities/Fine Arts or Global Awareness			3
ENGL231N	British Literature 1800 to Present	3	0	3
	ENGL/COMM Elective			3
ENGL285N	Topics in English Studies Seminar			3
	<b>Total Credits</b>			<b>60-62</b>

# General Studies

## General Studies

### Degree Type

Associate in Science

The Associate in Science in General Studies degree program is designed for students who wish to pursue a flexible degree plan tailored to their specific educational or career goals. Students pursue the General Studies degree to acquire new skills, to upgrade their current occupational skills, or to build a foundation for further education.

The General Studies program may be appropriate for students who:

- Have earned a variety of college credits and want to complete a degree
- Wish to sample various course offerings within degree programs to help guide their future
- Have career goals that cannot be met through another degree program

Since the General Studies degree plan is developed around individual career goals, prospective students must meet with the General Studies Program Coordinator to establish a program of study.

## Residency Requirements

At least 15 semester credits must be taken at Nashua Community College not including transfer credits. A minimum of 8 credits of coursework in the program must be completed at the “200” level.

## Admission Requirement

Applicants must:

- Be high school graduates or have the GED equivalent.
- Submit an application for admission and have official transcripts forwarded to Nashua Community College by secondary and post-secondary institutions previously attended.
- Participate in the ACCUPLACER® Placement Assessment test when appropriate.

At the completion of the degree in General Studies, graduates will be able to:

1. Articulate an understanding of the importance of lifelong learning.
2. Use contemporary information technology to locate, evaluate and utilize information for an intended purpose.
3. Express oneself clearly and cogently, through written and oral communication.
4. Employ both qualitative and quantitative reasoning to solve problems.
5. Apply logical, critical, ethical, and creative thinking to analyze problems, evaluate alternative solutions, and make decisions.
6. Integrate and apply the fundamental processes of scientific inquiry, social sciences, and arts and humanities.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.



## Graduation Requirements

A minimum of 60 credits is required for graduation to be distributed in the following manner:

Item #	Title	Class Hours	Lab Hours	Credits
	Specialty and Support Courses			33
ENGL101N	College Composition	4	0	4
	English/Communications			3
	Science Core Requirement			4
	Behavioral Social Science or History/ Political Science			3
	Quantitative Literacy			4
	Humanities/Fine Arts or Global Awareness			3
	Open Elective			3
	Open Elective			3
	<b>Total Credits</b>			<b>60</b>

## Health Science

### Health Science

#### Degree Type

Associate in Science

The Associate in Science in Health Science degree program has been designed for students who have a desire to work in the healthcare industry or allied health but who have not yet chosen a specific health field or area of interest.

The first year includes courses that would be required for general education as well as a career in the healthcare field. At the end of the first year, students will have the option of transferring to another associate degree program to complete their course work in a specific field or continue on to receive their associate degree with a focus on coursework pertaining to their focused health related interest. The second year is flexible for students to choose courses that could then potentially transfer to a 4 year college in the field of their choice.

With careful planning, the student will be able to earn credits that will fit their intended field of study.

Acceptance into the Health Science program does not guarantee acceptance in or give preferential treatment to an applicant to a specific health program at a later date.

After completion of Health Science program, the student will meet the following outcomes:

1. The student will communicate effectively and fluently; read with comprehension; listen, speak and write competently.
2. The student will develop skills in reflection, analysis, logical reasoning, and evaluation to formulate judgments, reach conclusions, and solve problems.
3. The student will evaluate and utilize quantitative and qualitative data and apply mathematical and scientific principles and methods.
4. The student will utilize technology to locate, evaluate, organize, and utilize information accurately and responsibly.
5. The student will acquire knowledge and skills to function effectively as informed and responsible citizens.
6. The student will acquire knowledge and skills that will enable respect for diversity as well as an awareness of global interdependency.
7. The student will formulate a plan for personal and professional growth in a health related career.
8. The student will articulate the importance and necessity of lifelong learning in particular as it applies to health related fields.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## Residency Requirements

At least 15 semester credits must be taken at Nashua Community College not including transfer credits. A minimum of 8 credits of coursework in the program must be completed at the “200” level.

## Admission Requirements

Applicants must:

- Be high school graduates or have the GED equivalent.
- Submit an application for admission and have official transcripts forwarded to Nashua Community College by secondary and post-secondary institutions previously attended.
- Participate in the ACCUPLACER® Placement Assessment test when appropriate.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
	ANTH105N or Behavioral Social Science General Education Core Requirement			3
PSYC101N	Introduction to Psychology	3	0	3
BIOL201N	Anatomy & Physiology I	3	3	4
ENGL101N	College Composition	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL202N	Anatomy & Physiology II	3	3	4
PSYC201N	Human Growth & Development	3	0	3
MATH106N	Statistics I	4	0	4
	Humanities/Fine Arts or Global Awareness			3
	English/Communications			3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
BIOL210N	Medical Microbiology	3	3	4
	Specialty and Support Courses: (As appropriate to student's career plans)			11

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Specialty and Support Courses: (As appropriate to student's career plans)			11
	<b>Total Credits</b>			<b>60</b>

## History

### History & Political Science

#### Degree Type

Associate in Arts

The Associate in Arts Degree in History & Political Science has been developed to provide the first two years of preparation for a student wishing to complete a bachelor degree with a major in history or political science.

The Liberal Arts Degree in History and Political Science may be especially appropriate for students who plan to pursue careers in the fields of education, government, historic preservation, public history, or law. Students are encouraged to work closely with their academic advisor while at NCC. An early decision by a student as to the four-year college/ university to which he/she plans to transfer will make the advising process more effective.

Upon the completion of the degree in History & Political Science, graduates will be able to:

1. Utilize knowledge of historical trends, political institutions and processes to evaluate contemporary problems/ issues.
2. Practice collaborative skills that prepare individuals to engage in the democratic process.
3. Employ the historical method of inquiry as a problem solving tool.
4. Identify frame of reference and context when evaluating evidence.
5. Differentiate between facts and interpretations.
6. Synthesize multiple perspectives when problem solving.
7. Support hypotheses with credible evidence.
8. Communicate hypotheses effectively both orally and in writing.
9. Cite sources using the Chicago Manual of Style.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

A minimum of 60 credits must be earned in the required categories to complete the program of studies. A minimum of 15 credits must be earned at Nashua Community College, and 8 of those 15 credits must be earned in courses at the 200 level

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
	ANTH105N or Behavioral Social Science General Education Core Requirement			3
ENGL101N	College Composition	4	0	4
HIST101N	Western Civilization From Ancient Times to 1700	3	0	3
MATH106N	Statistics I	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	English/Communications			3
	POLS101N or POLS106N			3
	Science Core Requirement			4
	GEOG110N or GEOG130N			3
HIST102N	Western Civilization From 1600 to the Present	3	0	3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ECON202N	Macroeconomics	3	0	3
	History/Political Science			3
	History/Political Science			3
	Science Core Requirement			4
	Global Awareness Core Requirement			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	History/Political Science			3
	Behavioral Social Science Core Requirement			3
	Humanities/Fine Arts Core Requirement			3
	Global Awareness Core Requirement			3
HIST285N	Introduction to Historical Research Methods	3	0	3
<b>Total Credits</b>				<b>60-61</b>

## Honda Automotive

### Honda Automotive Technology Professional Automotive Career Training (PACT)

#### Degree Type

Associate in Science

The Honda Automotive Technology program, otherwise known as PACT (Professional Automotive Career Training) is a partnership among Nashua Community College, American Honda Motor Co., Inc. and Honda/Acura Dealers. This associate degree program is designed to train students for employment in Honda/Acura dealerships and to prepare them for ASE Master certification. The training includes classroom theory, hands-on lab work, an internship at a dealer and general education components. The technical instruction at the College is conducted in a professionally equipped, modern facility. American Honda supplies the program with vehicles, special tools, and access to technical data.

Graduates of the PACT program will have received more than 70% of the required training to become a Honda/Acura Master Technician in addition to being prepared for ASE Master certification. This is a significant head start into a career with job security and high income potential.

In addition to the general admission requirements, the PACT Program applicants should be aware of the following criteria:

1. A minimum of one year of high school algebra is recommended. Basic skills in written English are required.
2. A basic automotive tool kit and roll cabinet are required. A copy of the required tool kit list is available on the College website. The major tool manufacturers offer substantial discounts to enrolled PACT students. The College hosts a "Tool Day" at the College in late August for enrolled students needing tools or tool kits. Depending on the tool manufacturer, approximate tool kit cost is between \$3,500 and \$6,000.
3. After successfully completing all coursework in the first semester with a 2.0 GPA, students are then qualified for an internship. Students must maintain a CGPA of 2.0 to remain on internship.
4. All PACT students are required to complete the internship.
5. All PACT internships carry a per credit tuition charge.
6. Students must be matriculated into the PACT program to take HATN courses.
7. A copy of a valid driver's license and clean driving record are required for admission to the PACT program. (See PACT Program Coordinator for details.)

Students should familiarize themselves with the Industry and Transportation Department General Education Policies located in the General Education Policies section of this Catalog.

This program is Master Automobile Service Technology (MAST) Accredited by the Automotive Service Excellence Education Foundation (ASE)

Technical Standards: Please refer to Technical Standards for details regarding this program.

To qualify for a Honda dealership placement, a student must successfully complete all program coursework leading up to each of the internship courses. A 2.0 GPA is required for Internship placement.

Upon the completion of the degree in Honda Automotive Technology, graduates will be able to:

1. Evaluate, diagnose, and repair various automotive systems using ASE guidelines.
  2. Use technology and basic scientific principles for research and problem solving.
  3. Employ effective written and oral communication skills.
  4. Employ effective technical writing skills.
  5. Utilize mathematical logic and analysis for problem solving.
  6. Understand the connections between individuals and society.
  7. Have the ability to achieve ASE Master Certification.
  8. Demonstrate proficiency with the Honda Interactive Network and other technological and information resources.
  9. Demonstrate effective interpersonal skills.
10. Perform reading skills at a college level.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN106N	Honda Internal Combustion Engine	2	3	3
HATN121N	Honda Service & Maintenance	2	4	4
HATN113N	Honda Electricity and Wiring	2	3	3
ENGL101N	College Composition	4	0	4
	Quantitative Literacy			4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN114N	Honda Steering & Suspension	2	4	4
HATN122N	Honda Brakes & Stability Systems	2	4	4
HATN185N	Engine Performance I	2	4	4
HATN190N	Honda Dealer Internship I: Capstone Course	0	12	2
	English/Communications			3

### Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN195N	Honda Dealership Internship II: Capstone Course	0	24	3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN205N	Honda Advanced Electrical & Electronic Systems	2	4	4
HATN226N	Honda Transmissions & Drivelines	2	6	4
HATN191N	Honda Dealer Internship III: Capstone Course	0	12	2
PHYS101N	Physical Science I	3	2	4
	Behavioral Social Science or History/ Political Science			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN215N	Honda Engine Performance II	2	4	4
HATN228N	Honda Engine Repair	2	6	4
HATN221N	Honda Heating & Air Conditioning Systems	2	4	4
HATN192N	Honda Dealer Internship IV: Capstone Course	0	12	2
	Humanities/Fine Arts or Global Awareness			3
<b>Total Credits</b>				<b>70</b>

## Honda Automotive Technology Professional Automotive Career Training (PACT)

### Degree Type

Certificate

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN106N	Honda Internal Combustion Engine	2	3	3
HATN121N	Honda Service & Maintenance	2	4	4
HATN113N	Honda Electricity and Wiring	2	3	3

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN114N	Honda Steering & Suspension	2	4	4
HATN122N	Honda Brakes & Stability Systems	2	4	4
HATN185N	Engine Performance I	2	4	4
HATN190N	Honda Dealer Internship I: Capstone Course	0	12	2

## Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN195N	Honda Dealership Internship II: Capstone Course	0	24	3

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN205N	Honda Advanced Electrical & Electronic Systems	2	4	4
HATN226N	Honda Transmissions & Drivelines	2	6	4
HATN191N	Honda Dealer Internship III: Capstone Course	0	12	2

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
HATN215N	Honda Engine Performance II	2	4	4
HATN228N	Honda Engine Repair	2	6	4
HATN221N	Honda Heating & Air Conditioning Systems	2	4	4
HATN192N	Honda Dealer Internship IV: Capstone Course	0	12	2

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# Human Services

## Human Services

### Degree Type

Associate in Science

The mission of the Human Services program is to prepare students to become skilled professionals who can function ethically and effectively within multicultural settings and with diverse populations. We strive to respond to regional and economic needs and provide access to higher education for all who seek fulfillment of career and economic goals through education. The program is geared to the needs of our students, the profession we support and the commerce that drives our economy.

The goals of the human services program relate to the above mission statement by its primary one; to prepare students for direct service occupations in human service agencies. A second goal is to prepare students for further studies through transfer leading to advanced academic degrees and special certifications. A third goal is to provide to individuals already employed in human services, educational opportunities for personal and professional growth.

The Associate in Science Degree program in Human Services prepares students to work with individuals who are consumers of the human services delivery system, providing them with direct services and linking them with other community services and resources.

Graduates of the Human Services program may be employed in human services agencies which deal with developmental disabilities, mental health, residential treatment, hospice care, abuse prevention and substance abuse. Graduates will be prepared for employment in positions such as service coordinator, group home manager, job coach, vocational instructor and trainer, residential living counselor, community living instructor, program manager, site supervisor, supported or independent living specialist, and family support coordinator.

The job market for human service workers has experienced tremendous growth during the past twenty years, concurrent with the expansion of community-based mental health and developmental disabilities programs for the elderly, the disabled, individuals on the autism spectrum, and families in crisis.

Locally, employment growth in Hillsborough County is projected to be the fourth highest of all ten counties in New Hampshire. One of the fastest growing occupations in NH includes social and human service assistants, projected to increase by 43.4% over the next ten years.

Entry-level salaries with an associate degree can range from \$27,000 to \$45,000 with opportunities for overtime, tuition reimbursement, and insurance coverage.

Transfer Agreements: Graduates wishing to pursue their bachelor's degree can benefit from our transfer agreements with many different colleges and may enroll after transferring credits earned at Nashua Community College. All candidates are required to have a personal interview with a department faculty member.

The College also offers a Certificate program in Human Services, providing students with the major courses required for entry level position, as well as providing them with an entry point for the continuation of studies. All Certificate courses have been incorporated into the first year of the Degree Program.

Technical Standards have been established as guidance tools to inform program applicants of skills and standards necessary for successful completion of the Human Service programs. Any applicant who has concerns or questions regarding the Technical Standards is encouraged to contact the Department Chair to discuss individual issues. Information on the Technical Standards for this program is also available in the Technical Standards section of this catalog.

Students in the Human Service programs must be able to demonstrate:

- Ability to communicate verbally as a student in classes, and later as a professional in individual and group counseling situations;
- Sufficient verbal skills and language to collaborate with a wide variety of helping professionals in clinical, societal and professional areas; deliver accurate and required information; and to search for information, e.g., questioning;
- Sufficient writing ability to formulate written assessment, charting notes, and reports, etc.;
- Ability to sustain cognitive integrity in areas of short and long-term memory, areas of written documentation and follow-through of responsibilities;
- Ability to concentrate on the execution of treatment plans, assigned skills and tasks as well as the integration and communication of this work for both short and long-term periods of time;
- Ability to work in settings that may lend themselves to frequent interruptions, immediate crisis response and role responsibility exchange;
- Ability to cope with a variety of stressors, including people-place occurrences, and demonstrate safe and required care for individuals and the workplace as a whole;
- Ability to secure transportation to practicum sites and classes; • Ability to consistently attend and participate in classes;
- Ability to demonstrate and maintain organizational skills, time management and professional respect and conduct as a human service student, either at a practicum site or in the community;
- Ability to adhere to and practice the Human Service Department's ethical guidelines.

A State Police criminal check is the responsibility of students and may be required for clinical fieldwork and/or employment upon request of an agency. Applicants who have had difficulty with the law depending upon the nature of the problem may not be employable or even eligible for fieldwork. Applicants need to discuss these matters in an interview with the Department Chair to determine future direction.

Students are advised to meet with their advisor to make appropriate elective selections based on their career goals and to facilitate the broadest range of transferability.

Dropping from a required program course may mean that the student will be out of sequence in program course offerings which may delay graduation. Individuals must recognize that to be successful in the Human Service field, they should be emotionally stable, creative, and flexible.

Upon the completion of the degree in Human Services, graduates will be able to:

1. Communicate effectively, including speaking, writing, and listening in order to express, transmit and interpret knowledge and ideas.
2. Research and plan in order to search for specific knowledge and the ability to conceptualize future needs and solutions for meeting those needs.
3. Use interpersonal skills for resolving conflict, relating to and helping people, such as empathy, genuineness, self-awareness, patience, etc.
4. Be competent in formal/informal assessment practices in order to understand the needs and interests of the participant.
5. Be competent in defining, discussing and performing the five basic case management functions: assessment, planning, linking, monitoring and advocacy.
6. Identify both personal and professional strengths and weaknesses and engage in appropriate self-development activities.
7. Describe roles of the various human service professionals in providing services.
8. Summarize the history of human services in America and identify important persons and movements
9. Conduct both directed and non-directed interviews for the purposes of obtaining personal historical information, determining eligibility for services and conducting a mental status evaluation.
10. Be able to demonstrate an understanding of ethical principles and apply them to professional practice.
11. Knowledgeable of the requirements for documentation in the organization and be able to manage these requirements efficiently.
12. Understand theoretical bases for different interventions as well as to initiate, develop and terminate interventions in a manner that enables continuous client growth.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.



Students are advised to meet with their advisor to make appropriate elective selections based on their career goals and to facilitate the broadest range of transferability.

Dropping from a required program course may mean that the student will be out of sequence in program course offerings which may delay graduation. Individuals must recognize that to be successful in the Human Service field, they should be emotionally stable, creative, and flexible.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
PSYC101N	Introduction to Psychology	3	0	3
HSV111N	Introduction to Human Services	3	0	3
	Behavioral Social Science Core Requirement			3
	Quantitative Literacy			4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
HSV123N	Supportive Communication Skills	3	0	3
PSYC206N	Learning and Behavior	3	0	3
PSYC210N	Abnormal Psychology	3	0	3
HSV190N	Fieldwork I	1	8	3
	Behavioral Social Science Core Requirement			3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
	ENGL102N or ENGL103N			3
PSYC212N	Individual Counseling: Theory and Practice	3	0	3
PSYC240N	Drugs and Alcohol	3	0	3
	Science Core Requirement			4
	Humanities/Fine Arts or Global Awareness			3

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
HSV225N	Family Dynamics	3	0	3
PSYC222N	Group Dynamics & Counseling	3	0	3
	History/Political Science			3
HSV291N	Capstone Experience (Fieldwork)	1	8	3
	Open Elective			3
	<b>Total Credits</b>			<b>62-63</b>

## Human Services

Degree Type  
Certificate

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
PSYC101N	Introduction to Psychology	3	0	3
HSV111N	Introduction to Human Services	3	0	3
PSYC206N	Learning and Behavior	3	0	3
ENGL101N	College Composition	4	0	4
HSV123N	Supportive Communication Skills	3	0	3
	Behavioral Social Science Core Requirement			3
HSV190N	Fieldwork I	1	8	3
	<b>Total Credits</b>			<b>22</b>

## Humanities

### Humanities

#### Degree Type

Associate in Arts

The Associate in Arts degree program in Humanities is designed specifically to prepare students for successful transfer to a four-year baccalaureate degree program in a variety of majors. To achieve this purpose, the Humanities degree program provides students with a broad academic background in the field of fine arts, philosophy, and the humanities. Students may elect to focus their study in one of these three areas.

Students will have an opportunity to explore a variety of disciplines within the humanities while also completing the general education requirements necessary for transfer. The program also provides the student with the essential skills for academic, professional and personal purposes, including the ability to communicate effectively; think critically; analyze and apply inquiry from research; gain a global perspective; and appreciate cultural diversity. The College's required general education core studies further strengthens students' skills.

Upon the completion of the degree in Humanities, graduates will be able to:

1. Communicate effectively and fluently; read with comprehension; listen, speak and write competently
2. Apply skills in reflection, analysis, logical reasoning, and evaluation to formulate judgments, reach conclusions, and solve problems.
3. Evaluate and utilize quantitative and qualitative data and apply mathematical and scientific principles and methods
4. Utilize technology and apply inquiry through researching and evaluating multiple perspectives from multiple formats
5. Acquire knowledge and skills to function effectively as informed and responsible citizens
6. Acquire knowledge and skills that will enable respect for diversity as well as an awareness of global interdependency
7. Develop an appreciation of the variety of fields of study in the humanities

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

Suggested Tracks: Humanities/Fine Arts/Philosophy

A minimum of 60 credits must be earned in the required categories to complete the program of studies. A minimum of 15 credits must be earned at Nashua Community College, and 8 of those 15 credits must be earned in courses at the 200 level.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
ANTH105N	Ethnography of Work	3	0	3
HUMA101N	Introduction to the Humanities	3	0	3
	MATH103N or MATH106N			4

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	HUMA102N or HUMA103N			3
	HUMA110N or PHIL109N			3
	English/Communications			3
	Behavioral Social Science Core Requirement			3
	Science Core Requirement			4

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Science Core Requirement			4
	Quantitative Literacy			4
	HUMA/PHIL/ARTS/GA Elective			3
	HUMA/PHIL/ARTS/GA Elective			3
	HUMA/PHIL/ARTS/GA/ENGL Elective			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Behavioral Social Science or History/ Political Science			3
	HUMA/PHIL/ARTS/GA Elective			3
	HUMA/PHIL/ARTS/GA Elective			3
	HUMA/PHIL/ARTS/GA Elective			3
	HUMA/PHIL/ARTS/GA/ENGL Elective			3
	<b>Total Credits</b>			<b>60-62</b>

# Liberal Arts

## Liberal Arts

### Degree Type

Associate in Arts

The Associate in Arts in Liberal Arts degree program prepares students for successful transfer to a four-year baccalaureate degree program in a wide variety of majors. In the degree program, students will study a coherent and substantive balance of English, mathematics, the sciences, the arts and humanities, and the social science. Because the program gives students the opportunity to explore different academic interests, it is particularly appropriate for students who have not yet decided on an academic major.

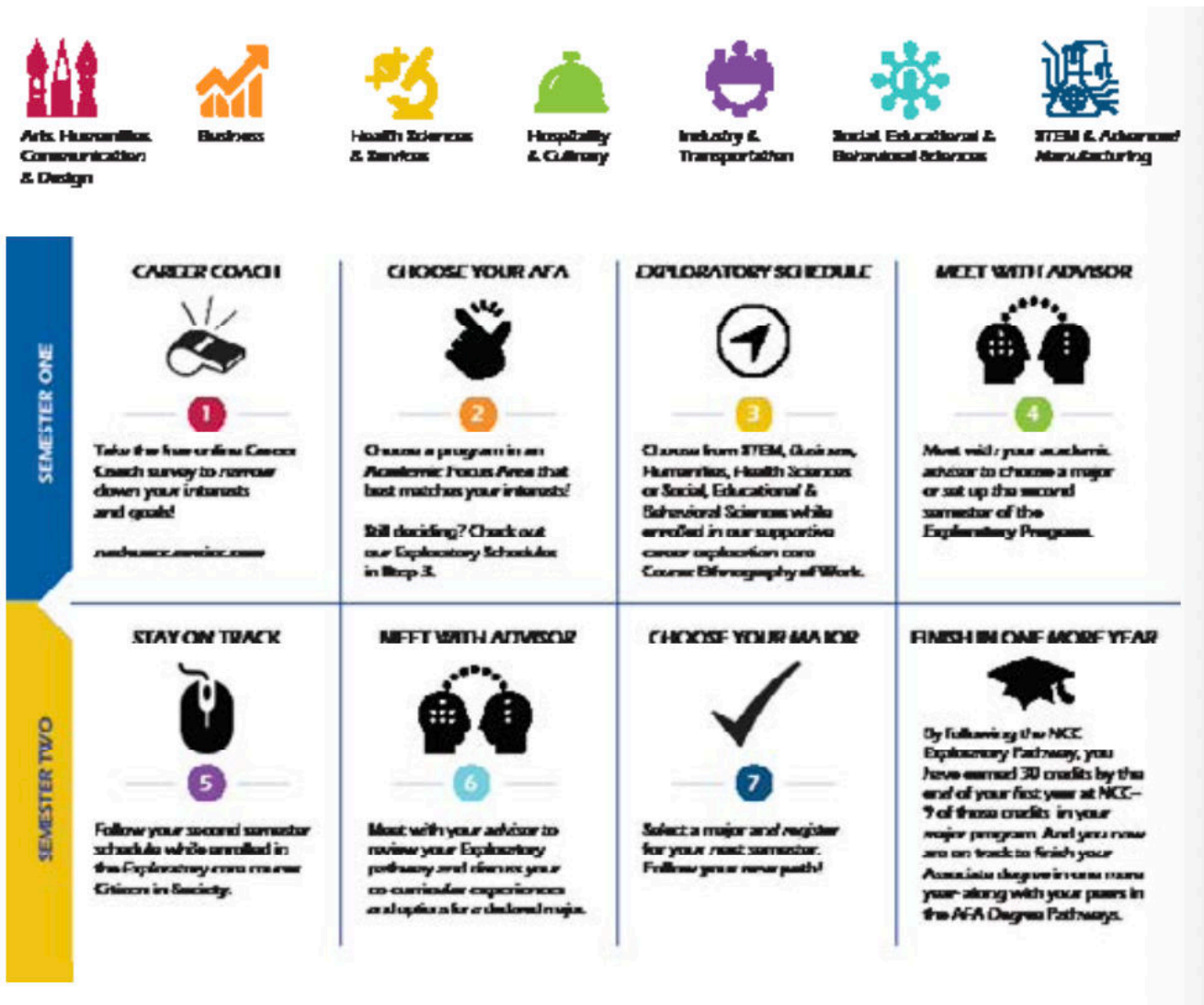
In addition to the transfer function of the Liberal Arts Program, the liberal arts have a practical application by providing essential skills needed by students in their personal and professional lives.

These skills include the ability to:

1. communicate effectively;

2. think critically;
3. use quantitative tools;
4. employ technology as an information resource;
5. apply research methods to solve problems;
6. reason about contemporary ethical issues and values;
7. embrace the importance of cultural diversity and a global perspective.

Students who have not yet decided on a college major are encouraged to enroll in the Liberal Arts Program and follow the Exploratory Pathway. Most Exploratory students choose an Academic Focus Area based on their individual interests and then follow a core curriculum of courses within their chosen AFA. Those who continue to explore continue to follow the Liberal Arts core curriculum. The focus of the Exploratory Liberal Arts pathway is to provide students with the tools and resources necessary for selecting a college major and career pathway.



By identifying early the four-year college to which they wish to transfer, and with the assistance of academic advisors, students will develop a program of study that meets their future plans. Requirements of the four-year college will guide some of the course selections chosen by students, but future plans and areas of personal interest will also contribute to students' program design. While the Liberal Arts program is ideal for students who wish to explore a variety of academic interests, students with more specific goals may choose to earn an Associate degree in one of the following programs: Communications, English, History, Mathematics, Psychology, or Science.

Upon the completion of the degree in Liberal Arts, graduates will be able to:

1. Communicate effectively and fluently; read with comprehension; listen, speak and write competently.
2. Develop skills in reflection, analysis, logical reasoning, and evaluation to formulate judgments, reach conclusions, and solve problems.
3. Evaluate and utilize quantitative and qualitative data and apply mathematical and scientific principles and methods.
4. Utilize technology to locate, evaluate, organize, and utilize information accurately and responsibly.
5. Acquire knowledge and skills to function effectively as informed and responsible citizens.
6. Acquire knowledge and skills that will enable respect for diversity as well as an awareness of global interdependency.

In addition, the graduate will be able to demonstrate the competency in the general education outcomes.

A minimum of 60 credits must be earned in the required categories to complete the program of studies. A minimum of 15 credits must be earned at NCC, and 8 of those 15 credits must be earned in courses at the 200 level.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ANTH105N	Ethnography of Work	3	0	3
ENGL101N	College Composition	4	0	4
	Quantitative Literacy			4
	General Education Elective			3

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	English/Communications			3
	History/Political Science			3
	Quantitative Literacy			4
	Humanities/Fine Arts or Global Awareness			3
	Open Elective			3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Science Core Requirement			4
	Behavioral Social Science or History/ Political Science			3
	Humanities/Fine Arts or Global Awareness			3
	General Education Elective			3
	Open Elective			3

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	Science Core Requirement			4
	Humanities/Fine Arts or Global Awareness			3
	General Education Elective			3
	General Education Elective			3
	Open Elective			3
	Open Elective			3
	<b>Total Credits</b>			<b>61-62</b>

# Machine Tool Technologies

## Machine Tool Technology CNC Programming

### Degree Type

Certificate

### Courses

Item #	Title	Class Hours	Lab Hours	Credits
MTTN101N	Manufacturing Processes	3	0	3
MTTN111N	Machine Tool Processes and Theory I	3	9	6
MATH110N	Algebra & Trigonometry	4	0	4
MTTN122N	Machine Tool Processes and Theory II	3	9	6
CAD131N	Technical Drawing	2	3	3
MTTN123N	Principles of CNC	2	3	3
MTTN231N	Advanced Machine Tool Processes and Theory I	3	9	6
MTTN223N	Computer Aided Manufacturing (CAM)	2	3	3
MTTN232N	Advanced Machine Tool Processes and Theory II: A Capstone Experience	3	9	6
<b>Total Credits</b>				<b>40</b>

# Mathematics

## Mathematics

### Degree Type

Associate in Science

The Associate in Science Degree in Mathematics has been developed to provide the first two years of preparation for a student wishing to complete a bachelor degree with a major in mathematics or mathematics education.

In addition, the Mathematics degree provides a strong foundation for a student who wishes to transfer to a four-year institution to study engineering, physics, or related fields.

Students graduating in mathematics will be capable of interpreting the language of mathematics, perform accurate mathematical calculations, and be able to understand how mathematics can be utilized to model natural phenomena.

Calculus-based Physics I and Calculus-based Physics II are recommended as laboratory science courses to meet the General Education requirements at Nashua Community College.

Students are encouraged to work closely with their academic advisor while at NCC. An early decision by a student as to which four-year college/university he/she plans to transfer will make the advising process more effective.

Upon the completion of the degree in Mathematics, graduates will be able to:

1. Demonstrate technical proficiency and effective problem solving ability in completing mathematical processes.
2. Apply mathematical concepts to other disciplines including business, economics, social sciences, and natural sciences.
3. Communicate mathematics effectively in both oral and written formats using appropriate mathematical language.
4. Use appropriate logical reasoning, understand mathematical proof and be capable of justifying results.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
MATH210N	Calculus I	4	0	4
ENGL101N	College Composition	4	0	4
MATH106N	Statistics I	4	0	4
	Science Core Requirement			4

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MATH211N	Calculus II		0	4
MATH215N	Linear Algebra	4	0	4
	English/Communications			3
	Science Core Requirement			4

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
MATH170N	Discrete Mathematics	4	0	4
MATH212N	Calculus III	4	0	4
	Behavioral Social Science Core Requirement			3
	Humanities/Fine Arts or Global Awareness			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI175N	Programming Using C++	2	2	3
MATH220N	Differential Equations	4	0	4
	Behavioral Social Science or History/ Political Science			3
	Humanities/Fine Arts or Global Awareness			3
	History/Political Science			3
<b>Total Credits</b>				<b>61</b>

# Mechanical Design Technologies

## Mechanical Design Technology

### Degree Type

Associate in Science

Mechanical Design Technology responds to industry needs for trained individuals who can follow the design process from inspiration to the final production design of manufactured products. The Mechanical Design Technology program prepares specialists who are capable of integrating all the steps of the design process.

The mechanical designer requires knowledge in many areas including Computer Aided Drafting and Design, Machine Shop, Robotics, and Machine Components.

Foundation courses will provide knowledge of physics, mathematics, machine shop practices, machine theory and automation programming. Subsequent courses build upon this basic knowledge to develop applications related to modern machine design.

To prepare students for the rapid pace of technological changes in the workplace, the Mechanical Design Technology program seeks to develop long-term sustainable design and problem-solving capabilities.

While manufacturing has had its struggles in recent years, demand is expected to be strong for mechanical designers as companies emphasize high-quality and safe products that are easy to use. High technology products in medicine, transportation, and other fields, and growing global competition among businesses are expected to keep designers busy.

Technical Standards: Please refer to Technical Standards section for details regarding this program.

Upon the completion of the degree in Mechanical Design Technology, graduates will be able to:

1. Evaluate and apply information technology effectively.
2. Generate engineering drawings that conform to industry standards.
3. Create three dimensional CAD models and assemblies that meet specific design criteria.
4. Use three dimensional CAD models for strength and motion analysis, animation, machining and rapid prototyping processes.
5. Evaluate and specify economical and environmentally friendly manufacturing processes and materials for product development.
6. Produce complete and comprehensive drawing packages as well as understand Engineering Change Order procedures.
7. Develop, design and manufacture a socially responsible industrial product.
8. Demonstrate critical and creative thinking skills to meet design and production deadlines.
9. Perform basic automation programming, fluid power, machining, and electronics related tasks in a production or test environment.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CAD111N	CADD I	3	4	5
MTTN101N	Manufacturing Processes	3	0	3
ENGL101N	College Composition	4	0	4
MATH110N	Algebra & Trigonometry	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CAD112N	CADD II	3	4	5
MTTN118N	Machining Technology	2	3	3
MDTN110N	Automation Programming	1	4	3
	PHYS130N or PHYS101N			4

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CAD215N	CADDIII	3	6	5
ELET131N	Circuit Analysis I	3	3	4
ELMT203N	Applied Mechanics I	3	1	3
	English/Communications			3



## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MDTN285N	Mechanical Design Capstone	3	2	4
ELMT204N	Fluid Power Design	2	1	2
ELMT210N	Applied Mechanics II	2	1	2
MTTN201N	Lean and Green Manufacturing Methods	3	0	3
	Behavioral Social Science Core Requirement			3
	Humanities/Fine Arts Core Requirement			3
<b>Total Credits</b>				<b>63</b>

## Mechanical Engineering Technology

### Degree Type

Associate in Science

Nashua Community College's Mechanical Engineering Technology degree is based on the real-world experience of our instructors and the time tested fundamentals of Mechanical Engineering.

This program includes multiple design courses using the parametric design software Solidworks. Additional disciplines include hydraulics and pneumatics, programmable logic controllers, circuit analysis, chemistry and machining technology to provide students with a range of engineering disciplines.

A fundamental component of engineering is mathematics and physics which helps students understand and solve a wide range of engineering problems and challenges. These courses and others such as English, communications, C++ programming and behavioral sciences round out our Mechanical Engineering Technology Program.

This program provides students the opportunity to directly transfer into the Mechanical Engineering Technology degree at UNH Manchester. This bachelor of science degree offers students a greater number of engineering opportunities in the field of Mechanical Engineering.

## First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CAD111N	CADD I	3	4	5
MTTN101N	Manufacturing Processes	3	0	3
ENGL101N	College Composition	4	0	4
MATH120N	PreCalculus	4	0	4

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CAD112N	CADD II	3	4	5
MTTN118N	Machining Technology	2	3	3
MDTN110N	Automation Programming	1	4	3
PHYS130N	Physics I	3	3	4
	CSCI175N or ELET115N			3

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CAD215N	CADDIII	3	6	5
ELET131N	Circuit Analysis I	3	3	4
ELMT203N	Applied Mechanics I	3	1	3
	English/Communications			3
MATH210N	Calculus I	4	0	4

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MDTN285N	Mechanical Design Capstone	3	2	4
ELMT204N	Fluid Power Design	2	1	2
ELMT210N	Applied Mechanics II	2	1	2
MTTN201N	Lean and Green Manufacturing Methods	3	0	3
	Behavioral Social Science Core Requirement			3
	Humanities/Fine Arts or Global Awareness			3
CHEM130N	General Chemistry I	3	3	4
	<b>Total Credits</b>			<b>74</b>

# Nursing

## Nursing

### Degree Type

Associate in Science

The Mission of the Department of Nursing at Nashua Community College (NCC) is to provide students the opportunity to earn an Associate in Science Degree in Nursing, which prepares them to take the licensing exam (NCLEX-RN) to become Registered Nurses, for employment in entry-level positions in nursing, and for further education and professional development.

Fall 2022 Admission Requirements for the Associate in Science in Nursing Program (ASN) Requirements for the Associate in Science in Nursing Program (ASN). In an effort to provide you with the most current and comprehensive information about our program, prospective nursing students must attend a Nursing Information Session prior to submitting an application. Dates and times for information sessions can be found online at [www.nashuacc.edu/admissions/information-sessions](http://www.nashuacc.edu/admissions/information-sessions).

## Deadlines and Early Acceptances:

ASN applications deadline for Fall 2022 must be completed by March 1, 2022, to be considered for acceptance in the Fall 2022 class.

Priority deadlines for early acceptances October 1st, 2021 & January 21st, 2022. A completed application is the responsibility of the nursing candidate. Incomplete applications will not be considered.

Candidates must complete the college admission requirements, the Nursing Department admission requirements and provide documentation of the following criteria for admission consideration:

- Attendance at a Nursing Information Session.
- Complete and submit application for the program.
- Complete Anatomy & Physiology I and Introduction to Psychology with a C+ or higher no more than five years prior to starting the first nursing course.

- Two professional confidential references, work or education- related on forms provided by the college. References must be submitted in a sealed envelope.
- Pre-admission examination: the Test of Essential Academic Skills (TEAS) by Assessment Technologies Institute (ATI) with an adjusted individual score in the following categories:
  - Reading – 74.50% or better,
  - Math – 68.80% or better,
  - Science 55.3% or better and English 66.7% or better.
  - The TEAS test evaluates the academic ability of prospective RN students.
  - See [www.atitesting.com](http://www.atitesting.com) for more information about preparing for the test and to register for the TEAS.
- The TEAS must be taken within two years prior to the start of the first nursing course.
- Ability to meet the Health, Character, and Technical Standards for the ASN program (please see below).

## Selection Criteria

Selection is determined by a cumulative point system that is based on applicable courses and grades, TEAS scores, and references. Applications will be reviewed and admission decisions will be made by the Chair of Student and Community Affairs and the Director of the Department of Nursing. Preference will be given to applicants who:

- Are New Hampshire residents.
- Have Higher grades for A&P I and II relative to the applicant pool
- Have completed a greater number of nursing related general education courses relative to the applicant pool.
- Have a history of academic success.

Qualified students who are not accepted in the initial selection process may be assigned to a prioritized wait list according to the above criteria. They may be subsequently admitted if an opening becomes available. The wait list will expire once classes begin. Applicants still desiring admission must reapply

## Advanced Placement for Licensed Practical Nurses

Licensed practical nurses LPN may have the opportunity to transfer into the ASN program with advanced standing in the spring semester of the first year on a space-available basis. Applicants must have an active LPN license in New Hampshire and successfully complete the National League for Nursing (NLN) Nursing Acceleration Challenge Exam (NACE) with a required overall percent score of 74% or better. Applicants who successfully complete the NLN NACE exam and are accepted into the program will be awarded 8 credits in place of NURS 125N, Fundamental Concepts and Skills for Nursing Practice. Applicants must also show documentation of completion of Human Growth and Development and A&P II with a C+ or better prior to entering the program in the spring semester. The deadline for LPN advanced placement applications is:

- Deadline for Spring 2022 – November 1st, 2021.
- Deadline for Spring 2023 – November 1st, 2022.

## Transfer Students

Transfer students who have been enrolled in a nursing program within the past five years may have the opportunity to transfer into the ASN program at NCC on a space-available basis. Nursing credits must be no more than five years old prior to beginning the first NCC nursing course. A minimum grade of B- is required for previous coursework to be accepted for transfer.. Science credits must also be no more than five years old with a minimum grade of C+. Introduction to Psychology and Human Growth and Development must be no more than five years old from the start of the first nursing course with a minimum grade of C+. Applicants must also submit a letter of reference from the director of the nursing program at the previous school. Transfer students must also complete the National League for Nursing (NLN) Nursing Acceleration Challenge Exam (NACE) exam with the required pass rate. Transcripts of previous college credits may be submitted and will be evaluated for transferability.

## Time Allotment for Program Completion

All nursing courses must be completed within (5) five years of the date of entry into the first nursing course. Students must follow the program of study requirements as published in the College Catalog in the academic year of their acceptance into the ASN Program. In the event of a curriculum change prior to completion and phasing out of previous courses, the student may be required to repeat one or more courses for placement in the new curriculum.

Upon Conditional Acceptance it is understood that acceptance is conditional upon submission of satisfactory evidence in the form of the following documents:

- The nursing program utilizes CastleBranch for submission of required documents. All costs associated with Castlebranch and pre-entry requirements are the responsibility of the student. Accepted students will be given specific information regarding accessing CastleBranch during orientation.
- Documents that must be submitted to CastleBranch include report of a current (within 1 year prior to beginning the first Nursing course) physical examination on the NCC health form including all required health screening: Two step Mantoux testing to assess exposure to tuberculosis, titers for measles, mumps, rubella (MMR), varicella, hepatitis B, and immunization for tetanus, diphtheria and pertussis (Tdap). Flu immunization is required yearly as stated in CastleBranch. Students are responsible for submitting updates to immunizations yearly i.e. flu and Tdap if needed.
- Possess and maintain personal health insurance. Students are responsible for providing documentation of insurance coverage yearly. If insurance information changes during the academic year, students must notify Castlebranch immediately.

To be accepted health insurance must meet the following criteria:

- United States based insurance plan;
- Provides the 10 essential health benefits specified in the Affordable Care Act (<https://www.healthcare.gov/glossary/essential-health-benefits/>);
- Includes access to hospital and physician providers in the area where the student is attending a New Hampshire community college;
- Will remain in effect for the entire semester (except for termination due to the attainment of a maximum age, or other situation resulting in a loss of plan eligibility).

The following plans DO NOT meet the above criteria:

- An accident-only policy
- A short-term limited duration health plan that does not meet the requirements of the Affordable Care Act (ACA)
- A ministry sharing plan, even if it is recognized by the ACA

Any other health benefits program (e.g., a community care program) that is not recognized by the State of NH as being health insurance (or is not a health benefits plan governed by the Employee Retirement Income Security Act of 1974) and does not meet all of the requirements specified above.

- Possess and maintain professional liability insurance. The fee for professional liability insurance coverage is included in the first semester tuition bill.
- Acquire and maintain certification in cardiopulmonary resuscitation (CPR) at the healthcare provider level (basic life support for healthcare providers from the American heart Association AHA or Red Cross) that will be valid for the entire two years of the program through graduation.
- Complete a criminal background check.
- A drug test - must be done within two weeks prior to the first clinical day. The cost is to be incurred by the student.
- Individuals with a court record or a criminal conviction may wish to contact the Board(s) of Registration in Nursing in any state in which they plan to work for guidelines; a previous record may affect eligibility for RN licensure. The NH Board of Nursing can be reached at 603-271-2323. This will allow the individual to make an informed decision about choosing to pursue nursing education at this time.
- Students will repeat the criminal background check, TB and drug testing prior to their senior year.

In addition: Fees may include but are not limited to:

- Clinical Fees

- Assessment Technologies Institute® (ATI) testing package.
- Uniform, stethoscope, penlight, watch with a second hand, textbooks, skills lab kit and supplies for lab practice, nursing pins, NCLEX preparation and licensure.

### Please Note:

Degree requirements must be completed within five years of the first nursing course. Completion of the program does not guarantee succeeding on the NCLEX-RN, the licensing exam

## Health, Character, and Technical Standards for the Associate in Science in Nursing Program

Technical standards have been established to inform the student of minimum standards to satisfactorily function in the program and ultimately in the profession. The College must ensure that patients/ clients of clinical affiliates are not placed in jeopardy by students during learning experiences. Therefore, students in service learning and clinical experiences must demonstrate sufficient emotional stability to withstand the stress, uncertainties, and rapidly changing circumstances that characterize the responsibilities of patient/ client care. Furthermore, the student is expected to have the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member, and establish rapport and maintain sensitive interpersonal relationships with patients, their families, agency staff, faculty, and classmates. Applicants must be in good physical and mental health to meet program objectives. Technical Standards information is also available in the Technical Standards section of this catalog.

1. Sufficient hearing to assess patient needs, physiological signs, understand instructions, identify emergency signals, assess body functions, and engage in telephone conversation.
2. Sufficient visual acuity to observe patients, manipulate equipment, interpret data, ensure a safe environment, identify color changes, read fine print/writing, and do fine calibrations.
3. Sufficient speech and language ability to express, comprehend, and exchange information and ideas in English verbally, nonverbally, and in writing, and to interact clearly and logically with patients, family members, physicians, nurses, faculty, peers, and other ancillary medical personnel.
4. Sufficient tactile ability to assess pressure, temperature, position, vibration, and movement.
5. Ability to work with frequent interruptions, to respond appropriately in emergencies or unexpected situations, and to cope with extreme variations in workload and stress levels.
6. Sufficient emotional intelligence to exhibit empathy and compassion, to maintain productive relationships in classroom and clinical settings, and to integrate direction, instruction, and criticism into behavioral changes.
7. Sufficient strength, endurance, and motor coordination to perform the following physical activities: participation in lengthy classroom activities; fine and gross motor skills to carry out procedures; ability to safely and frequently handle, lift, and/ or carry equipment and patients up to thirty pounds; stamina to complete an eight to twelve hour work shift; and ability to perform CPR.
8. Sufficient information technology access and skills to complete assignments according to program standards.
9. Applicants with latex allergies are advised to seek professional medical consultation.

## ACEN Accreditation

The Associate Degree Nursing Program at Nashua Community College meets prelicensure education requirements to take the National Council Licensing Exam for Registered Nurses (NCLEX- RN) in the states of New Hampshire and Massachusetts. Nashua Community College has not determined if the program meets the education requirements in any other state, U.S. Territory, or the District of Columbia. Please contact the specific regulatory agency for nursing to determine prelicensure nursing education required for NCLEX-RN eligibility in other jurisdictions.

The Associate Degree Nursing Program is approved by the New Hampshire Board of Nursing (NHBON). Upon satisfactory completion of the program, the graduate is eligible to apply to the New Hampshire Board of Nursing (NHBON) and Pearson VUE NCLEX Candidate Services for the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The New Hampshire Board of Nursing's licensing regulations may restrict candidates who have been involved in civil or criminal legal proceedings. Questions about licensing restrictions should be addressed to the NH Board of Nursing via email at [board.questions@opl.nh.gov](mailto:board.questions@opl.nh.gov) or calling (603) 271-2323. The NH Board of Nursing is located at 7 Eagle Square, Concord, NH 03301.

The Associate Degree Nursing Program at Nashua Community College is accredited by:

Accreditation Commission for Education in Nursing (ACEN);  
3390 Peachtree Road NE  
Suite 1400  
Atlanta, Georgia 30326  
P. 404.975.5000  
F. 404.975.5020  
Website: [www.acenursing.org](http://www.acenursing.org)

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate degree nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at: <http://www.acenursing.us/accreditedprograms/programSearch.htm>

## Criteria for Progression in the Program

The curriculum includes a general education component that supports courses in nursing. Students must earn a minimum grade of C+ in Anatomy and Physiology I and II, Microbiology, Introduction to Psychology, Human Growth and Development and a B - in all nursing courses in order to progress in the program. Courses in nursing (NURS) are taken sequentially and include a clinical component. Students who do not meet criteria for progression may seek reentry at the point of last success with approval from the Director of the department and on a space- available basis. Re-entry is not guaranteed. A student may be granted one opportunity to reenter the program.

## Continuing Education

Graduates of the program are encouraged to earn the Bachelor and/or Master of Science in Nursing. Articulation agreements are maintained with Franklin Pierce University, Granite State College, Rivier University, and Southern NH University. Students may also identify other programs that meet their specific needs. Students planning to continue their education toward the Bachelor's or Master's of Science in Nursing should plan their program of study with an academic advisor from the Department of Nursing. Further information can be obtained from the respective programs or from the Director of the Department of Nursing.

## End-of-Program Student Learning Outcomes:

Upon completion of the degree in Nursing, graduates will be able to:

1. Plan and deliver safe individualized care to patients by integrating the nursing process and pertinent nursing knowledge, principles of teaching / learning, and preferences of patients or legal designees across the lifespan, diversity of culture, and the levels of prevention.
2. Practice collaboratively on the multi-professional health care team using principles of leadership across the disciplines and throughout the health care system to influence and facilitate conflict resolution and the establishment and achievement of shared goals.
3. Support a culture of continuous quality improvement by using data to monitor outcomes; identifying and reporting actual or potential problems; collaborating with the multi-professional team throughout the health care system; and developing evidence- based strategies for optimal practice.
4. Use health care system resources and technology; including information technology, time, policies and procedures, materials, and equipment, to coordinate and deliver individual and / or population-focused care that is safe, cost- effective, and efficient.
5. Communicate clearly in goal-oriented, culturally sensitive, caring, concise, and timely ways using written, verbal, non- verbal, and electronic modalities.
6. Demonstrate accountability for professional practice using legal, ethical, and regulatory guidelines and participate in activities that contribute to life-long learning.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

Program Outcomes, Associate in Science in Nursing, Nashua Community College, 2018, 2019, 2020.

Program Outcome	2018	2019	2020
Number of Graduates	19	11	20

Program Completion 80% 73% 80%  
 RN Licensure 100% 82% 100%  
 Employment at 6 Months 95% 100% 95%

## NURSING:

\* Proof of successful completion with a C+ or higher and taken within five years of the first nursing course. Anatomy and Physiology I and Intro to Psychology, must be submitted by the nursing application deadline date.

### Entry to Program

Item #	Title	Class Hours	Lab Hours	Credits
BIOL201N	Anatomy & Physiology I	3	3	4
PSYC101N	Introduction to Psychology	3	0	3

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
BIOL202N	Anatomy & Physiology II	3	3	4
PSYC201N	Human Growth & Development	3	0	3
NURS125N	Fundamental Concepts & Skills for Nursing Practice	4	12	8

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
NURS140N	Nursing Care I: Concepts and Skills	4	12	8
BIOL210N	Medical Microbiology	3	3	4
	Quantitative Literacy			4

### First Year - Summer Semester

Item #	Title	Class Hours	Lab Hours	Credits
NURS230N	Pharmacology for Nursing Practice	3	0	3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
NURS220N	Nursing Care II: Concepts and Skills	4	15	9
	English/Communications			3

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
NURS240N	Management of Nursing Care Across the Lifespan	4	15	9
	Humanities/Fine Arts or Global Awareness			3
<b>Total Credits</b>				<b>69</b>

## Paralegal

### Paralegal Studies

#### Degree Type

Associate in Science

The Paralegal Studies Program provides students with the education and training necessary to seek and begin a career as a paralegal. Under the supervision of a lawyer, paralegals will: gather background information, interview clients and witnesses; perform legal research and writing; draft legal documents and contracts; and assist attorneys in preparing for court and at trial.\*

For the student looking to pursue an education beyond the associate degree, this program is designed to provide transferability to bachelor degree programs.

All paralegal courses at Nashua Community College are taught by experienced attorneys. In all paralegal specialty courses, the students will not only be taught the essential knowledge of the law, but will also be given the practical knowledge necessary for employment and success as a paralegal.

For the Mission Statement, Goals and Objectives of the Paralegal Studies Program of Nashua Community College, go to the Paralegal Studies Program web pages on the College website at [www.nashuacc.edu](http://www.nashuacc.edu).

Nashua Community College is a Sustaining Member of the Paralegal Association of New Hampshire ([www.PANH.org](http://www.PANH.org)).

A criminal conviction may preclude employment as a paralegal. A criminal record check may be required for the Paralegal Internship and/or employment by the organization, law firm, or government agency, and which is the sole responsibility of the student.

To be successful in the Paralegal Studies Program, students should have an interest in the law, must be diligent and committed to their studies, be dependable, have good communication skills, be well-organized; or be willing and able to develop all these skills and qualities.

Internship Considerations: Please refer to Technical Standards section for details regarding internship requirements.

Paralegals work under the direction and supervision of licensed attorneys. \*Paralegals may not provide legal services directly to the public except as permitted by law.

Upon the completion of the degree in Paralegal Studies, graduates will be able:

1. To demonstrate they possess the knowledge, skills, values and attitudes necessary to work effectively, competently, ethically and successfully as a paralegal/legal assistant for a law office/firm, government agency, or other private or public law-related organization.
2. To understand their role as paralegals under the supervision of lawyers, how law is practiced by lawyers in the various settings, and understand the duties and responsibilities of lawyers and paralegals for the delivery of legal services in a competent, professional, and ethical manner.
3. To demonstrate they have been adequately and effectively trained to produce work on a professional level as a paralegal, they must possess the fundamental knowledge of the legal system and principles of law acquired in each of their paralegal specialty courses, and possess the practical knowledge of the practice of law by lawyers necessary to work successfully as a paralegal.
4. To demonstrate they acquired effective communication, quantitative, and analytical skills necessary to work competently and successfully as a paralegal.
5. To demonstrate they possess the necessary time management and organizational skills as they are applied to the duties and responsibilities of paralegals working in the legal profession, including: prioritizing their assigned tasks and projects working independently or with others; preparing checklists for work done and to be done; organizing and categorizing legal files and documents; maintaining accurate calendars of all important matters, dates and deadlines; and maintaining accurate time records of all their work.
6. To demonstrate they are prepared to engage in proper legal analysis of issues of law, to conduct thorough legal research of the issues of law using traditional and technology-based legal research sources and tools, and effectively communicate the results of their legal research, analysis and legal reasoning in oral presentations and in written work-product on a professional level.
7. To effectively communicate with other persons and entities associated with the field of law by utilizing oral communication skills and writing skills on a professional level.
8. To draft legal documents and forms by following required legal procedures and directions of their supervising lawyer.



9. To demonstrate they possess a working understanding of the legal purposes and functions of the different branches and departments of the federal and state governments and court systems, and of the procedural law governing civil and criminal cases from the commencement of a case, through trial, judgment/sentencing and appeal.
10. To perform proper and thorough investigation of legal matters and cases they are assigned by their supervising lawyer through the gathering of relevant evidence and through interviews with clients and witnesses.
11. To demonstrate an understanding of Alternative Dispute Resolution (ADR) and its importance as an alternative to legal action and court proceedings, including mediation and all forms of voluntary, mandatory, binding and non-binding arbitration.
12. To demonstrate they possess the computer skills necessary to work efficiently as a paralegal professional, possess a working knowledge of integrated software applications and word processing utilized in the legal field, and are familiar with other technology utilized in the legal field, including the use of computer databases, case management systems, and trial presentations.
13. To apply basic principles, terminology and methods of financial accounting.
14. To compete effectively in the employment search process, from employment research, through resume and cover letter preparation, interview preparation and skills, and interview follow-up.
15. To demonstrate an understanding of the importance of community service and the importance of making quality legal services available to all persons in the community regardless of socioeconomic status.
16. To demonstrate an understanding of the importance of having a sensitivity and respect for persons and groups with cultures, ethnic backgrounds, and traditions different from their own both in the legal profession and in every-day living.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ACCT101N	Financial Accounting I	4	0	4
PLGL101N	Basic Legal Studies	3	0	3
PLGL102N	Legal Research and Writing	3	0	3
ENGL101N	College Composition	4	0	4
HUMA110N	Critical Thinking Skills	3	0	3

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL103N	Professional Writing & Presentations	3	0	3
PSYC130N	Human Relations	3	0	3
PLGL230N	Contracts and Business Organizations	3	0	3
PLGL250N	Family Law	3	0	3
	Quantitative Literacy			4

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
PLGL210N	Litigation and Trial Preparation	3	0	3
PLGL220N	Real Estate Law	3	0	3
HIST241N	American Constitutional History	3	0	3
BCPT119N	Software Applications	2	2	3
	Humanities/Fine Arts or Global Awareness			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
PLGL240N	Probate, Estates, and Trusts	3	0	3
PLGL260N	Criminal Law	3	0	3
	PLGL290N or PLGL280N			3
	Science Core Requirement			4
<b>Total Credits</b>				<b>60-61</b>

## Paralegal

### Degree Type

Certificate

\*Note: Paralegal Certificate courses offered and to be taken in same semesters listed under associate degree.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

## Courses

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
PLGL101N	Basic Legal Studies	3	0	3
PLGL102N	Legal Research and Writing	3	0	3
PLGL230N	Contracts and Business Organizations	3	0	3
PLGL220N	Real Estate Law	3	0	3
PLGL210N	Litigation and Trial Preparation	3	0	3
PLGL240N	Probate, Estates, and Trusts	3	0	3
PLGL250N	Family Law	3	0	3
PLGL260N	Criminal Law	3	0	3
<b>Total Credits</b>				<b>28</b>

## Precision Manufacturing

### Precision Manufacturing

#### Degree Type

Associate in Science

At the heart of our mechanized world is the Precision Manufacturing industry requiring skilled technicians to carry out new ideas and plans in the production of all types of manufactured parts. Many of these skilled technicians can earn more than \$50,000 a year.

Precision Manufacturing students receive applied training in basic concepts of machine tool processes during the first year.

In the second year, students will receive training in such specialized areas as production machining and Computer Aided Manufacturing (CAM), Computer Numerical Control (CNC) programming, setup and operation.

Employment opportunities include CNC specialists, mold makers, technical support technicians, field service representatives, and general machinists.

In addition to the general admission requirements, applicants should be aware of the following criteria:

1. A minimum of high school Algebra I is recommended.
2. Good skills in written English are required.
3. Other high school courses such as physics and computer programming are recommended.

4. It is recommended that senior students purchase a basic machinist tool kit.

Technical Standards: Please refer to Technical Standards section for details regarding this program.

Upon the completion of the degree in Precision Manufacturing, the graduate will be able to:

1. Analyze and interpret drawings using ANSI Y 14.5M (2009) standards of Geometric Dimensioning and Tolerancing (GDT) to plan, program and produce complex machined parts to specifications using CNC and manual machines.
2. Work collaboratively to produce a quantity of precision assemblies in an accurate and timely fashion, using CAD/CAM software, writing G and M code programs, planning the project sequence, producing parts within tolerances and inspecting parts for conformance as part of the capstone experience.
3. Use Statistical Process Control, lean manufacturing techniques, ANSI and ISO standards, material safety data sheets, and responsible environmental procedures to safely manage production of machined and fabricated products.
4. Communicate technical and procedural instructions clearly in verbal, written, graphic and electronic formats.
5. Diagnose and solve machining and production problems using appropriate technical resources in a logical, systematic fashion.
6. Demonstrate appropriate interpersonal interactions, conscientious work habits, personal effectiveness, professional conduct, organizational skills and creative problem-solving to enhance job acquisition, retention and advancement.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
MTTN101N	Manufacturing Processes	3	0	3
MTTN111N	Machine Tool Processes and Theory I	3	9	6
ENGL101N	College Composition	4	0	4
MATH110N	Algebra & Trigonometry	4	0	4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MTTN122N	Machine Tool Processes and Theory II	3	9	6
CAD131N	Technical Drawing	2	3	3
MTTN123N	Principles of CNC	2	3	3
	English/Communications			3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
MTTN231N	Advanced Machine Tool Processes and Theory I	3	9	6
MTTN223N	Computer Aided Manufacturing (CAM) 2		3	3
	Science Core Requirement			4
	Behavioral Social Science or History/ Political Science			3

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
MTTN232N	Advanced Machine Tool Processes and Theory II: A Capstone Experience	3	9	6
MTTN201N	Lean and Green Manufacturing Methods	3	0	3
	Humanities/Fine Arts or Global Awareness			3

# Psychology

## Psychology

### Degree Type

Associate in Arts

The Associate in Arts Degree in Psychology has been developed to provide the first two years of preparation for a student wishing to complete a bachelor degree with a major in Psychology.

Psychology is the wide-ranging scientific study and exploration of behavior and mental processes. Critical thinking skills such as interpretation, analysis, construction and assessment of material will be emphasized and developed.

Students should be aware that many careers in the field of professional psychology require a master's degree or doctoral degree, depending upon the career path selected.

The courses in this program are designed for students who intend to complete the first two years of a bachelor's degree program at Nashua Community College and then transfer to a four-year college or university to complete the bachelor's degree with a major in psychology. Psychology courses are an excellent complement to any profession or course of training that involves human interaction.

Students are encouraged to work closely with their academic advisor while at NCC. An early decision by a student as to which four-year college/university he/she plans to transfer will make the advising process more effective.

Upon the completion of the degree in Psychology, graduates will be able to:

1. Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings and historical trends in psychology.
2. Understand and apply basic research methods in psychology, including research design, data analysis and interpretation.
3. Understand and apply psychological principles to personal, social and organizational issues.
4. Understand and weigh evidence, tolerate ambiguity, act ethically and reflect other values that are the underpinnings of psychology as a discipline.
5. Develop insight into their own and other's behavior and mental processes and apply effective strategies for self-management and self-improvement.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

A minimum of 60 credits must be earned in the required categories to complete the program of studies. A minimum of 15 credits must be earned at Nashua Community College, and 8 of those 15 credits must be earned in courses at the 200 level.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
	History/Political Science			3
	Humanities/Fine Arts Core Requirement			3
PSYC101N	Introduction to Psychology	3	0	3
MATH106N	Statistics I	4	0	4

## First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
PSYC201N	Human Growth & Development	3	0	3
PSYC220N	Research Methods	3	0	3
	Humanities/Fine Arts or Global Awareness			3
MATH206N	Statistics II	4	0	4
	English/Communications			3

## Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
PSYC210N	Abnormal Psychology	3	0	3
	Humanities/Fine Arts or Global Awareness			3
BIOL105N	Biology in Focus: Cellular Basis of Life	3	3	4
	PSYCxxxN Psychology Elective			3
	Behavioral Social Science Core Requirement			3

## Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
PSYC290N	Psychology Internship: A Capstone Experience			3
PSYC207N	Social Psychology	3	0	3
	PSYCxxxN Psychology Elective			3
	Science Core Requirement			4
<b>Total Credits</b>				<b>61-62</b>

# Web Application Development

## Web Application Development

### Degree Type

Associate in Science

The explosive growth of the Internet has changed the way people communicate, conduct business, acquire education, and manage their daily lives. The world's acceptance of these technologies has made the Internet and the Web a basic requirement for most businesses resulting in a widely acknowledged need for professionals having a strong education in web-related areas.

This program combines numerous facets of traditional software engineering skills with graphical user interface design and client server architecture thus producing a broad knowledge base in these areas:

- Problem Solving
- HTML5/CSS3
- Programming Languages such as JavaScript, C++, and PHP
- Systems Analysis including data flow and use case/class diagrams
- Database Design and SQL

Graduates of this program can either seek entry-level positions in web development or continue their education in the field of computers.

Technical Standards: Please refer to Technical Standards section for details regarding this program.

At the completion of the degree in Web Application Development, graduates will be able to:

1. Solve problems through the application of appropriate research methods.
2. Identify the benefits of quality, timeliness and continuous improvement in regards to software development process.
3. Apply critical-thinking skills to identify, analyze and solve problems.
4. Communicate software development related information effectively to a diverse audience using visual and written modes.
5. Demonstrate the ability to apply all facets of the software development life cycle during a project.
6. Demonstrate the ability to follow a systematic progression of software development and refinement when designing and developing software for a project.
7. Participate effectively as a member of a web application development team.
8. Articulate an understanding of the need for lifelong learning.
9. Demonstrate an understanding of diversity through interaction with project teammates.
10. Develop websites that reflect the application of up-to-date tools and techniques of the discipline.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

### First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
CSCI106N	Introduction to Software & Web Development	3	0	3
CSCI107N	HTML	2	2	3
CSCI161N	Introduction to Programming	2	2	3
	MATH110N or MATH120N or MATH210N			4

### First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI140N	Essentials of System Analysis & Design	2	2	3
CSCI175N	Programming Using C++	2	2	3
MATH170N	Discrete Mathematics	4	0	4
CSCI108N	HTML and CSS	2	2	3
ARTS120N	Introduction to Graphic Design	3	0	3

### Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI201N	Client-Side Scripting Using JavaScript	2	2	3
CSCN170N	Linux Essentials	2	2	3
CSCI207N	Database Design & Management	2	2	3
CSCN116N	Networking Basics	2	2	3
	Science Core Requirement			4

### Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
	CSCI120N or CSCI230N			3
CSCI206N	Server-Side Scripting Using PHP	2	2	3
	Behavioral Social Science Core Requirement			3
	English/Communications			3
	CSCI290N or CSCI284N			3
<b>Total Credits</b>				<b>64</b>

# Courses

## Accounting

### **ACCT101N : Financial Accounting I**

This course provides a foundation for a thorough understanding of basic accounting procedures and principles through the study of the accounting cycle and financial statements. Additionally, current assets, cash and receivables will be studied. The use of computers in accounting is introduced.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

### **ACCT102N : Financial Accounting II**

This course is a continuation of [ACCT101N](#). Current and longterm assets are studied along with liabilities and owner's equity items. Accounting for corporations and bonds are also discussed. The course concludes with preparation of the Statement of Cash Flows and financial statement analysis.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisite Courses**

ACCT101N

### **ACCT201N : Intermediate Accounting I**

A study of the development of accounting begins this course. A review of the fundamental processes of accounting precedes a detailed study of the financial statements and assets on the balance sheet. Debt and equity financing is also discussed.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisite Courses**

ACCT102N

### **ACCT202N : Intermediate Accounting II**

This course is a continuation of [ACCT201N](#). Topics include long term assets, leases, and pensions. An in-depth look at financial reporting issues will complete the course. This course contains a service learning option.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisite Courses**

ACCT201N

### **ACCT206N : Cost Accounting**

A study of the basic concepts and procedures of cost accounting and their application to the job order and process cost systems and to standard costs.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisite Courses**

ACCT102N

### **ACCT210N : Managerial Accounting**

Financial accounting information is used in planning, evaluating, and controlling business operations. Topics include product costing, cost behavior, cost-volume-profit analysis, budgeting, performance evaluation, and capital investment analysis.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

ACCT102N

### **ACCT214N : Accounting Information Systems: Accounting Program Capstone Course**

The utilization of a computerized accounting system for the effective control and audit of service and merchandising businesses. Advanced techniques of customizing and designing forms and importing and exporting data will be introduced.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

ACCT201N

### **ACCT290N : Accounting Internship**

An internship program in Accounting is a hands-on learning experience at a for-profit or not-for-profit organization which allows the student to practice competencies and skills learned in the classroom under the direct supervision of an on-site internship supervisor.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

Completion of all catalog-listed courses for the first three semesters in a business student's respective program of study.

# Anthropology

## **ANTH105N : Ethnography of Work**

In this course, students will use social science research methods to learn about workplace culture and investigate potential career pathways. In conducting their research, students will use a variety of anthropological methods and techniques to evaluate the myths and stereotypes about work while gaining insight into how and why work matters to those choosing particular careers. The culture of work is examined in the context of contemporary dynamics of disruption, uncertainty, innovation, and diversity. Assignments encourage students to draw connections between the self and work so they are prepared to make informed decisions about majors and for those who have chosen the Exploratory Liberal Arts Program. This course is a requirement for all students in the First Year Program who have not yet selected a major.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

### **Notes**

This course fulfills a General Education Core Requirement: Behavioral Social Science.

## **ANTH108N : Introduction to Archaeology**

The course offers an exploration of the basic theories, methods, and principles of prehistoric and historical archaeology in the Old and New Worlds. The course will introduce students to methods used by archaeologists to reconstruct ancient societies, interpret their finds, and explain how and why societies evolve.

**Credits** 3

## **ANTH110N : Cultural Anthropology**

Cultural anthropology is a discipline that seeks to understand the human experience through social-scientific investigations of cultures around the world. This course offers tools for making sense of the experiences of diverse people whose lives are different from the student's own life, as well as putting the student's familiar worlds into new perspectives.

**Credits** 3

### **Notes**

This course fulfills a General Education Core Requirement: Behavioral Social Science.

## **ANTH260N : Special Topics in Anthropology**

This course provides students with an opportunity to learn about an area not covered by existing courses in the social science curriculum. While the topics may vary from semester to semester depending on faculty and student interest, this course emphasizes a core set of essential skills common to all anthropology courses at Nashua Community College. A course description will be made available prior to the start of registration.

**Credits** 3

### **Prerequisites**

ENGL101N or ENGL110N, and SOCI101N or ANTH110N

## **ANTH263N : Honors Introduction to Chinese Culture and Society**

With a growing political and economic influence, the study of China is becoming increasingly important for Americans to become a global citizen and educated person. This honors course provides an understanding of the Chinese society and mindset by examining major Chinese geographic features, the formation and evolution of Chinese identity, Chinese philosophical and religious traditions, Chinese political, economic and social systems, Chinese education system, and Chinese literature and arts.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

### **Prerequisite or Corequisite**

[ENGL110N](#) or [ENGL101N](#) and permission of the Honors Program Coordinator or Admissions into the Honors Program.

### **Notes**

This course fulfills a General Education Core Requirement: Global Awareness.

# Art

## **ARTS101N : Introduction to Drawing**

This course combines an appreciation of drawings by a number of artists with an exploration of drawing using various materials and media. Students will study several drawing materials, themes, and styles. In that way, they may gain the ability to self-evaluate their own drawings and the drawings of others according to basic principles of design, technique, and style. In addition to tuition and fees for the course, students will be expected to purchase up to \$50 of drawing materials and papers for the course.

**Credits** 3

### **Notes**

This course fulfills a General Education Core Requirement: Humanities/Fine Arts.



**ARTS111N : Photography & Digital Imaging I**

This course covers the technical and artistic aspects of photography and digital imaging. Topics include camera operation, exposure, composition, and lighting with emphasis on the technical and artistic sides of photography. Through assignments in photographing nature, scenery, people, sports, and existing light and through the study of the styles of many renowned photographers, students will begin to develop their artistic sense and photographic vision. The lab component will use photo editing software to manipulate and composite images. Students must have access to a camera with manual settings for apertures and shutter speeds.

**Credits 3**

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

**ARTS112N : Photography & Digital Imaging II**

This is an advanced course in photographic techniques, styles and, aesthetics. Students will continue building technical and artistic skills with the camera using composition, lighting, and design as well as expanding their proficiency with photo editing software to create and refine personal vision. Students will create a high-quality portfolio of photographs and lab projects. A camera with adjustable apertures and shutter speeds is required.

**Credits 3**

**Prerequisites**

ARTS111N or permission of the instructor.

**ARTS120N : Introduction to Graphic Design**

This introductory course covers the technical and artistic aspects of graphic design and its purpose as a tool for marketing and disseminating information to the public. Topics include: Elements of creative design, visual communication, type, composition, color formats, requirements for print and web, and using Photoshop or another photo editing software as a designing tool, and emphasis on both the technical and artistic sides of graphic design. Through assignments both in studying successful professional graphic design and creating ads, brochures, posters etc., preparing designs for print and web, utilizing images and text as well as creating designs from a blank file, students will start to develop a logical sense of how to use image, color, form and text to achieve the desired level of clear and effective communication of a message. This course requires reading, research, and has a lab component working with Photoshop.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

**ARTS200N : Drawing II: Developing a Personal Approach to Drawing**

This course will encourage students to explore different stylistic approaches and materials in drawing in order to encourage them to expand their understanding of the drawing process. Mixed media and experimental techniques including dry and fluid mediums will be experimented with in relation to different themes. Some studies of the human form will be included. In addition to tuition and fees for the course, students will be expected to purchase up to \$50 of drawing material and papers.

**Credits 3**

**Prerequisites**

ARTS101N (minimum grade of B) or Permission of Instructor and student portfolio.

## Automotive

**AUTO106N : Internal Combustion Engine**

This course examines 2 and 4 stroke engines, their operating systems, and related physical properties. Principles from basic carburation to variable cam timing, forced induction and performance parts are covered. The lab element of this course exposes the students to the construction methods, precision measurements, and tolerances related to engine design. It also covers basic diagnostics of a 4 stroke engine.

**Class Hours 2**

**Lab Hours 3**

**Credits 3**

**AUTO113N : Automotive Electricity & Wiring**

This course will cover the theory of automotive electrical systems and the diagnosis and troubleshooting of these systems. Wiring procedures, reading wiring diagrams, repair techniques for electrical harnesses and components. Starting and charging systems will be covered.

**Class Hours 2**

**Lab Hours 3**

**Credits 3**

**AUTO114N : Automotive Suspension & Steering**

A student must earn a 'C' or better to achieve a passing grade in this course.

An introduction to automotive suspension systems, four-wheel alignment, wheel balancing and Roadforce. The lecture covers topics from basic components. Dynamic suspension systems, performance dampers and alignment angles. The lab includes the diagnostics and repair of steering and suspension components, wheel alignments and wheel and tire service. Due to the safety and nature of this course, students must earn a minimum of a 'C' to continue.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

AUTO121N

**AUTO121N : Automotive Service & Maintenance**

A student must earn a 'C' or better to achieve a passing grade in this course.

The study and development of skills in automotive maintenance and preventive maintenance procedures such as engine lubrication, exhaust systems, cooling systems, tire rotation and balance, NH state motor vehicle inspection procedures, engine drive belt, thread repair and Oxy/acetylene torches. A student must earn a 'C' or better to achieve a passing grade in this course. This course contains a service learning opportunity.

**Class Hours** 2

**Lab Hours** 2

**Credits** 4

**AUTO122N : Automotive Brake Systems**

A student must earn a 'C' or better to achieve a passing grade in this course.

The study of braking systems with an emphasis on the diagnosis and repair of hydraulic systems of disc and drum brakes, the machining of rotors brake drums, brake line fabrication, ABS and stability control. Due to the safety and nature of this course, students must earn a minimum grade of a 'C' to continue.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

AUTO113N, AUTO121N.

**AUTO185N : Automotive Engine Performance I**

Theory of operation and diagnosis of the intake and exhaust systems, computerized fuel delivery systems and ignition systems are covered. Testing of these systems with OBD-II interfaces and the use of various pressure gauges, lab scopes and multi-meter will be covered in the lab.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

AUTO113N, AUTO121N.

**AUTO190N : Automotive Technology Co-Op**

A student must earn a 'C' or better to achieve a passing grade in this course.

Automotive Technology Co-Op is designed to place students into a shop environment after successful completion of all first-year courses. Students will be assigned work tasks to reinforce the skills learned in their courses at NCC. These tasks will range from oil and filter services to four-wheel alignments, steering component replacement, brake services and check engine diagnosis under the supervision of a senior technician. Students will complete a minimum of 20 hours per week or 200-hours total in the Co-op. Students must bring their tool kit to the Co-Op location. Grades will come from a combination of performance evaluations, input from the onsite supervisor, and co-op coordinator. Students will be responsible for completing a journal that will document their hours worked, assigned workload, and overall shop experience. This course will be designated as a Pass/Fail course. Periodic Co-Op visits will be performed by the assigned instructor to monitor student progress.

**Class Hours** 0

**Lab Hours** 12

**Credits** 2

**Prerequisites**

AUTO121N, AUTO114N, AUTO122N and a CGPA of 2.0

**AUTO205N : Advanced Automotive Electricity & Electronics**

This course includes operating principles and troubleshooting of various systems, body computers, multiplexing, keyless entry, etc. Testing of sensors, circuits and on-board diagnostics related to these systems will be covered.

**Class Hours** 2

**Lab Hours** 2

**Credits** 4

**Prerequisites**

AUTO113N, AUTO121N.

**AUTO215N : Engine Performance II**

A continuation of Engine Performance I with a focus on advanced diagnostics of engine control systems using, OBD-II interface and lab scopes. The function and operation of the supporting emission systems to include exhaust Catalyst, EVAP and EGR systems will be covered.

**Class Hours** 2

**Lab Hours** 2

**Credits** 4

**Prerequisites**

AUTO185N, AUTO205N.

**AUTO221N : Automotive Heating & Air Conditioning**

The theory and operation of automotive heating, ventilation and air conditioning systems will be covered including safety, maintenance, adjustment, diagnosis and repair. Automatic climate control systems, air conditioning component repair and replacement procedures, and refrigerant safety, recovery, recycling and recharge will be covered.

**Class Hours** 2

**Lab Hours** 2

**Credits** 4

**Prerequisite or Corequisite**

[PHYS101N](#)

**Prerequisite Courses**

AUTO121N

AUTO113N

**AUTO226N : Automotive Power Trains**

This course is designed to introduce students to the basic principles employed in the construction, operation and diagnosis of the various components and systems involved in the manual drive train of current automotive vehicles. Topics for this course include clutches, manual transmissions/transaxles, both front and rear wheel drive train components including drive shafts, axles and differentials. Four-wheel drive and all-wheel drive systems are discussed as well. This course is designed to meet the requirements of ASE Education Foundation certification in the topic of manual drive train and axles.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisite Courses**

AUTO121N

**AUTO227N : Automatic Transmissions**

This course covers the theory of operation and overhaul of automatic transmissions. The lecture focuses on the operation of automatics and uses case studies to show common failures and diagnostic steps. The lab focuses on hands-on diagnosis and repair, R&R of complete units, transmission overhauls and the installation of Shift kits.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

AUTO113N, AUTO121N.

**AUTO228N : Automotive Engine Repair: A Capstone Course**

This course is designed to give students a better understanding of current practices involved in the diagnosis, disassembly, cleaning, repair and reassembly of today's modern engines. Topics for this course will include engine diagnostic procedures, engine removal practices, proper teardown, cleaning and inspection processes, best practices for component repair/ replacement, reassembly and engine reinstallation. There will also be discussion about engine design, performance modifications and specifics regarding certain engine features that are manufacturer specific. This course is designed to meet all of the requirements for ASE Education Foundation certification in the Engine Repair section. There is also a Capstone Assignment that is part of this course.

**Class Hours** 2

**Lab Hours** 6

**Credits** 4

**Prerequisites**

AUTO185N, AUTO205N, PHYS101N

## Aviation

**AVTN101N : Maintenance Forms & Records**

This course is a study of selection and use of FAA technical and legal publications in order to perform the duties of an aircraft maintenance technician. Maintenance publications, forms and records, mechanic privileges, weight and balance problem solving, aircraft weighing procedures and establishing an aircraft equipment list will be covered.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**AVTN102N : Airframe Structures I**

This course is a study of repair procedures on aircraft fabric surfaces and wood structural members in accordance with FAA and manufacturer's instructions, as well as an introduction to sheet metal repairs using correct repair procedures, tools and materials. The application of aircraft finishing including enamel, lacquer and dope for fabric covered surfaces will also be discussed.

**Class Hours** 2

**Lab Hours** 6

**Credits** 4

**AVTN103N : Airframe Structures II**

The various materials and processes used in constructing aircraft are covered in this course. The proper use and selection of materials, rivets, fasteners for structural and nonstructural applications and welding are covered. In addition the following materials and their repair procedures will be covered: honeycomb, fiberglass, plastic and laminated surfaces.

**Class Hours** 3

**Lab Hours** 6

**Credits** 5

**Prerequisites**

AVTN102N, AVTN108N.

**AVTN104N : Materials and Processes**

This course is a study of identification, selection and inspection of aircraft hardware and materials; use of precision measurement equipment and related tools; identification and performance of nondestructive tests and interpretation of the results. Ground operation and servicing as well as corrosion control will be presented.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**AVTN105N : Aircraft Systems**

This course incorporates aircraft instruments and aircraft systems. Topics include basic airframe instruments, correct handling and installation procedures for instruments, ice and rain control systems, fire protection systems, position and warning systems, cabin atmosphere and control systems, fuel systems, inspection, checks, servicing and repair of the various systems and their components.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**AVTN106N : Aviation Electronics**

An introduction to DC and AC electricity, including their disassembly and maintenance. This course will also include generators and alternators. Emphasis will be placed on understanding control elements: electrical, hydraulic and pneumatic. The capstone of the course will be the ability to troubleshoot electromechanical problems.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**AVTN107N : Digital Logic**

Digital logic gates, flip-flops, PLAs and memory are studied as microprocessor support chips. Gate reduction techniques are introduced. Logic and control circuits using relay logic are a part of this course.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite Courses**

AVTN106N

**AVTN108N : Aviation Drafting & Blueprint Reading**

The study of the fundamentals of drafting and blueprint reading. This course will enable students enrolled in the Aircraft Maintenance Training program to develop the required skills to meet the FAA basic drafting and blueprint reading standards.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**AVTN202N : Airframe Electrical Systems**

The application and use of the principles of basic electricity to troubleshoot and repair aircraft electrical systems in accordance with the manufacturer's service instructions, fundamentals of navigation-communication equipment, antenna installation and theory, as well as the operation of the auto pilot systems will be covered in the course.

**Class Hours** 2

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

AVTN106N

**AVTN203N : Hydraulics & Pneumatics**

This course is a study of the theory of operation, maintenance requirements and adjustment of various hydraulic and pneumatic components. Testing, inspecting, troubleshooting and servicing hydraulic and pneumatic system components in accordance with FAA and manufacturers' specifications as well as troubleshooting and repairing wheel and brake systems in accordance with manufacturers' specifications will be covered.

**Class Hours** 3

**Lab Hours** 5

**Credits** 5

**AVTN204N : Assembly & Rigging**

Assembly and rigging of fixed and rotary winged aircraft are introduced, including the checking and alignment of structures, balancing and rigging of movable control surfaces, jacking aircraft and the final assembly and inspection of the aircraft. Students also receive instruction in airworthiness inspection procedures.

**Class Hours** 2

**Lab Hours** 6

**Credits** 4

**Prerequisites**

AVTN103N, AVTN203N.

**AVTN206N : Reciprocating Engines I**

A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

This course will provide the student with a detailed understanding of the aircraft reciprocating engine, its theory, development and versatile application on today's modern aircraft. Reciprocating engine configurations, such as Horizontally Opposed Engines, Radial engines, In-line and V-Engines, will also be covered. Reciprocating engine reliability, durability, operating flexibility and streamline ability will be discussed with emphasis on the importance of all these key engine requirements. The course will also include an in-depth look at Horizontally Opposed and Radial Engine construction, including all of the many internal components, mechanisms and assemblies. The student will have a hands-on understanding of each of these components, their design and how they all work together to provide safe, efficient and reliable engine power and thrust.

**Class Hours** 3

**Lab Hours** 6

**Credits** 5

**Prerequisite Courses**

AVTN104N

AVTN203N

**AVTN207N : Reciprocating Engines II**

A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

This course provides the student with a more enhanced knowledge and understanding of the aircraft internal combustion engine. To include engine disassembly and reassembly procedures. Performing detailed visual inspections, including (NDT) Non Destructive Testing, troubleshooting techniques, servicing and repair. Assuring powerplant conformity, airworthiness practices and inspections as mandated by the (FAA) Federal Aviation Administration, thru (FAR) Federal Aviation Regulations and manufactures procedures.

**Class Hours** 3

**Lab Hours** 6

**Credits** 5

**Prerequisite Courses**

AVTN206N

**AVTN208N : Engine Systems**

A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

This course will provide the student with a detailed understanding of the many aircraft engine systems. These include the Lubrication, Exhaust, Cooling, Fire Detection and Extinguishing Systems. Also the Engines Instrument systems will be presented to provide the student with an in-depth knowledge on how all these systems work together to provide safe and efficient engine performance. The student will also have a hands-on knowledge of each of these systems, along with their many parts and components. The course will also discuss the importance of providing the pilot and technician with reliable and accurate engine parameters, at all times, for flight safety and effective troubleshooting and adjustments.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**Co-Requisite Courses**

AVTN206N

### **AVTN209N : Aircraft Propellers**

A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

This course is a study of the physical laws and design characteristics governing propeller operation. Students receive instruction on propeller theory and maintenance, propeller control system components, types of propellers and propeller installations, identification and selection of propeller lubricants, inspecting, servicing and repairing of fixed pitch, constant speed and feathering propellers, propeller governing systems, propeller synchronizing and ice control systems.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

### **AVTN210N : Turbine Engine & Systems**

A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

The theory and maintenance of gas turbine engine systems and installation are covered in this course. Topics include theory of operation, operating characteristics, axial and centrifugal flow compressors, combustion chambers, exhaust sections, fan and bypass turbine engines, thrust reversing systems, turbine section and turbine blade design. Inspection and adjustment of gas turbine engines are included.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisite Courses**

AVTN208N

### **AVTN211N : Carburetion & Fuel Systems**

A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

This course is a study of the accessory systems used in aircraft powerplants. Carburetion; engine fuel systems; fuel metering systems; inspection, checking; servicing, troubleshooting and repair of reciprocating and turbine engine fuel metering systems are covered.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**Prerequisite Courses**

AVTN105N

### **AVTN212N : Engine Electrical Systems**

A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

This course covers additional powerplant accessory systems including magnetos, high and low tension systems, reciprocating and turbine engine ignition systems, and engine electrical systems and components. Engine fire protection systems will also be discussed.

**Class Hours** 2

**Lab Hours** 6

**Credits** 4

**Prerequisites**

AVTN202N, AVTN206N.

## **Basic Computers**

### **BCPT119N : Software Applications**

Students will learn basic to intermediate applications of end-user productivity software, this includes word processing, spreadsheet, presentation and relational database software. This course is taught using Microsoft Office and the Windows platform. Students using other platforms are encouraged to speak with the Program Coordinator to understand software challenges. Students using other platforms may need to use campus computers to complete some assignments.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

### **BCPT204N : Word Processing: WORD**

Intermediate and advanced word processing concepts, theory and applications will be studied and applied. Students perform activities in creating styles, outlines, tables, table of contents, mail merge, on-screen forms and managing multi-page documents. Integrating WORD with other applications and the World Wide Web as well as customizing WORD are studied.

**Credits** 3

### **BCPT208N : Spreadsheets: EXCEL**

Students will learn basic to advanced spreadsheet skills, this includes formulas, functions, charts, pivot tables and data analysis. This course is taught using Microsoft Excel on the Windows platform. Students using other platforms are encouraged to speak with the Program Coordinator to understand software challenges. Students using other platforms may need to use campus computers to complete some assignments.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**BCPT213N : Database Management: ACCESS**

A study of the uses of data and files, database design, and the physical utilization of database access systems. Topics include database design, terminology, and the creation of tables, forms, queries, reports and macros and Structured Query Language (SQL). The lab component will include the development of applications using MS Access, a relational database.

**Credits** 3

## Biology

**BIOL0201N : Co-Requisite Workshop for Anatomy & Physiology I**

The purpose of this workshop is to provide students identified as needing more support with understanding fundamental concepts found in biology and chemistry courses, the opportunity to have guided review of concepts in light of the current A&P course material. This Co-Requisite Workshop runs concurrently with the course to increase student understanding and ability to process the science behind these complex physiological functions. The first day of class, students are required to take an entrance exam to determine if they would benefit from this extra two hours of support.

**Co-Requisite Courses**

BIOL201N

**BIOL101N : Germs 101**

This General Education science course introduces students to the fascinating, invisible, Microbial world we live in. Through a variety of hands-on projects, students will garner understanding of the importance of Microbes to life on Earth. Students will learn to see microbes as organisms, both harmful and beneficial. This course does not meet the requirements of Microbiology for the Nursing Program nor for Biology majors.

**Credits** 4

**Notes**

This course fulfills a General Education Core Requirement: Science.

**BIOL105N : Biology in Focus: Cellular Basis of Life**

Scientific study of living things: Their fundamental processes, their unity and diversity, and connections to everyday lives. Areas of inquiry include cellular organization, metabolism and respiration, photosynthesis, and genetics from classic Mendelism to current biotechnologies. A minimum of 12 laboratory exercises support lecture topics and are designed to develop scientific inquiry and critical thinking. This course is equivalent to a college-paced Advanced Placement Biology course

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Notes**

This course fulfills a General Education Core Requirement: Science. Biology Majors should take [BIOL107N](#) for increased transfer options.

**BIOL106N : Biology in Focus: Exploring Biodiversity**

This course provides students the opportunity to develop critical thinking utilizing current ecological topics. An integrated lecture-lab experience that introduces the basic principles of evolution, biological diversity of living things, population and community ecology, and conservation biology. This course is equivalent to a college-paced Advanced Placement Biology course. This course is equivalent to a college-paced Advanced Placement Biology course. Not a Biology Majors course.

**Credits** 4

**BIOL107N : Principles of Biology: Molecular and Cellular**

This course introduces topics in more depth than [BIOL105N](#), faster pace, higher expectation of application through projected-based learning environment to implement new methodology and critical thinking in and out of the laboratory. Topics covered include the chemical and physical basis of life, biochemistry, cell structure and function, genetics with emphasis on replication, transcription, expression, structure as it links to function at cellular, individual, population, and community levels of organization and evolution. This course is designed for students pursuing careers in biological sciences, biotechnology or areas related to medicine, biomedical research.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

Successful completion (C or higher) of college preparatory Biology and Chemistry or be able to pass a biology program entrance exam and placement into [ENGL101N](#)

**Notes**

This course fulfills a General Education Core Requirement: Science.

**BIOL108N : Principles of Biology: Diversity, Evolution and Ecosystems**

This biology majors course introduces topics in more depth than [BIOL106N](#), faster pace, and is an integrated lecture-lab experience that introduces the basic scientific principles of evolution; biological diversity of living things; population and community ecology; and conservation biology. This course provides students the opportunity to develop critical thinking utilizing current ecological topics and project-based laboratory experiences.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

Successful completion (C or higher) of college preparatory Biology and Chemistry or be able to pass a program biology entrance exam.

**BIOL111N : Basic Human Anatomy & Physiology**

An introductory course centering on the structure and function of the human body with a concentration on normal anatomy with emphasis on system functions and interrelations between systems. This course is for the beginning student. A series of laboratory experiences are included to provide practical support for concepts presented in lecture.

**Credits** 4

**BIOL115N : Nutrition**

This survey course covers basic facts and principles of nutrition. The course is designed for anyone interested in nutrition and how it relates to overall health and wellness. The course examines what role the nutrients serve in the body, their sources, and how the body absorbs and utilizes them. Other topics covered include energy balance, weight management, fitness, and nutrition throughout the life cycle.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BIOL201N : Anatomy & Physiology I**

Proof of successful completion with a C+ or higher and taken within five years of the first nursing course. Anatomy and Physiology I and Intro to Psychology, must be submitted by the nursing application deadline date.

This course focuses on the chemical and molecular organization of the human body and the complementarity of structure and physiological functions. Topics from chemistry of life to organ systems including integumentary, skeletal, muscular and nervous are included with emphasis on physiology. Hands-on classroom and laboratory experiences augment lecture topics and including cytology, histology, physiological experimentation, study of human anatomical models, and dissection of appropriate specimens.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

Placement into college-level English, math and science; 'C' or better in: high school biology or [BIOL105N](#); and high school chemistry or [CHEM110N](#), or with permission from the Program Coordinator.



**BIOL202N : Anatomy & Physiology II**

This course is a continuation of BIOL201N that focuses on understanding how the biochemistry of each system affects the function of the whole organism. Systems covered in this course include endocrine, cardiovascular, immune, respiratory, digestive, excretory, and reproductive. Other topics pertinent to overall homeostasis and survival, including: imbalances, nutrition, metabolism, acid/base and fluid/electrolyte balance and genetics. Hands on experiences and laboratories designed to augment learning, include cytology, histology, physiological experimentation both wet lab and computer-assisted, study of human anatomical models, and dissection of appropriate specimens. May provide independent research option.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisite Courses**

BIOL201N

**BIOL205N : Pathophysiology**

This pathophysiology course will discuss many current health issues at the depth of the cell. This course is designed to provide the student with an understanding of the various cellular mechanisms by which human diseases develop which includes autoimmunity, infection, a survey of common disorders involving each of the major body systems. Students should have a solid background in cell biology before taking this course. This course fulfills an Advanced Biology Topic for Biology majors.

**Credits** 3

**Prerequisites**

BIOL107N or BIOL202N with a grade of 'C' or better or permission from Program Coordinator.

**BIOL207N : Immunology**

This upper level introductory Immunology course will discuss many current health immunology-related issues at the depth of the cellular mechanisms. This course is designed to provide the student with an understanding of the various cellular mechanisms by which human/murine models have developed to provide normal protection; includes a survey of disorders including infections, autoimmunity and developing carcinomas. This course fulfills the Advanced Biology Topic for Biology majors.

**Credits** 3

**Prerequisites**

BIOL210N/215N or BIOL202N with a grade of 'C' or better or permission of the Program Coordinator.

**BIOL210N : Medical Microbiology**

This course introduces the principles and practices of medical microbiology intended nursing students. Topics include: the nature and behavior of microorganisms; principles of growth and reproduction of microorganisms; identification of microorganisms using staining, pure culture, biochemical and antigenic techniques; and the epidemiology, clinical features, laboratory diagnosis and control measures for microbial diseases caused by viruses, bacteria, fungi, protozoa and helminthes. Students are required to complete an organism identification project.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

BIOL201N or BIOL105N with a grade of 'C' or better.

**Notes**

This course does not meet the requirements for Biology majors.

**BIOL215N : Microbiology**

This is a comprehensive study of the principles of microbiology. A brief survey of the history of the science and evolutionary taxonomy is given. Emphasis is placed on understanding the variety and differences among microbes, their metabolism, genetics, and their relationships as pathogens or probiotics to humans and activity in the environment. Also covered are molecular biology technologies, including genetic engineering, gene therapy, PCR genomics, and cloning. Laboratory study accompanies this course requiring successful completion of topic supportive exercises and of completing an unknown project where a mixed culture is given to each student for isolation and identification as partial requirement of the course. This course fulfills Biology major requirements.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

ENGL101N or ENGL110N, CHEM110N or CHEM130N, and BIOL105N, BIOL107N or BIOL201N or approval of Program Coordinator.

**BIOL220N : Ecology**

The course covers factors that influence the distribution of organisms; populations and species interactions, such as competition and predation; communities, their structure, dynamics, and the flow of energy; and ecosystems, their structure and dynamics, and particularly the effects of changing climate. Also covered are the role of evolution and human impact, including effects of harvesting, pesticides, invasive species, and restoration ecology. This one-semester course is geared toward preparing students for upper division courses in biology and related fields. Laboratory investigation will involve some field-study techniques and support topics discussed in class.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

ENGL101N/110N and BIOL108N.

**BIOL230N : Genetics**

UNH Transfer Preference

This course covers chemical structure of genetic material, Mendelism, gene recombination, and chromosome mapping, mutation, gene expression and regulation, and recombinant DNA. Quantitative inheritance and population genetics utilizing bioinformatics for class project. Laboratory: Hands-on experience with some of the important organisms used for research in genetics (*Drosophila*, *E. coli*, yeast, *C. elegans*, and plants). Investigation of fundamental genetic concepts in the laboratory, experience with transmission and molecular genetic techniques, introduction to bioinformatics, and analysis and interpretation of data.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

ENGL101N/110N, CHEM110N/131N, BIOL105N/107N and MATH106N or approval of coordinator.

**BIOL260N : Scientific Inquiry&Techniques**

This methods course is designed to develop scientific inquiry and physical laboratory skills to ensure students are ready for their Science Capstone Experience. The course is taught in three project based research modules so that students will develop the proficiencies needed in several science topics and techniques in molecular biology, bioengineering, bacteriology, biochemistry, etc. This course fulfills the needs of many disciplines within the sciences, teaching students general library literacy in finding and interpreting peer reviewed scientific journals that can be applied to making summaries and predictions regarding the topic of interest. Students will be encouraged to compare and contrast merits of various techniques and analyses methods. In the laboratory, students will reinforce and enhance their knowledge with hands-on experience with these new techniques learning and following all appropriate safety procedures (Good Laboratory Practices).

**Credits** 2

**Prerequisites**

BIOL107N and CHEM131N

**Co-Requisite Courses**

BIOL215N

## **BIOL270N : Advanced Topics in Biology**

UNH Transfer Preference

BIOL205N, BIOL207N and BIOL202N will satisfy this requirement

Advanced Topics in Biology will rotate through different upper-level science courses per semester, and may include endocrinology, biochemistry, molecular biology, cellular biology, or other topics. This course is designed to increase students' scientific knowledge, hone organizational techniques, advance analytical reasoning and enhance critical thinking skills. Students will have the opportunity to apply basic theories and skills learned in their previous science courses to collect data from scientific databases, assess quality of the cited research, and design analytic rubrics while learning the more in-depth language and content of an upper-level course. In addition to classroom instruction, students will work individually under the supervising faculty member to synthesize information from various current sources with their theoretical knowledge into a final project paper. Laboratory experiences may be added to increase student understanding of the scientific techniques being used in current literature. Students may be asked to present their research to the college community. Laboratory: Any laboratory experience will be project-based and not research based. Emphasis will be on development of technical skills, understanding results from new techniques and applying previous knowledge to problem-solving.

**Class Hours** 3

**Lab Hours** 2

**Max Lab Hours** -3

**Credits** 3- **Max Credits** 4

**Prerequisites**

BIOL108N or BIOL230N and CHEM130N.

## **BIOL280N : Science Capstone Experience**

This course is designed to develop students' critical thinking, design, and organizational skills that will result in formulating plausible research proposals. Students will have the opportunity to apply basic theories and skills learned in their fundamental science courses to design test of principle experiments, to develop skills in data collection, use of databases, designing analytic rubrics that will result in a logical written research proposal that students can take to their transferring university or college and present to a collegiate body. Students will work, as individuals or in small groups, under supervising faculty member to apply their knowledge of the laboratory experience in a research environment and in synthesizing and evaluating the developing research proposals. Laboratory: The laboratory work includes applying new techniques to their individual or group research questions. Research laboratory will have a formal technique portion, followed by individualized and closely guided open labs. Emphasis will be on development of technical skills, reasoning, laboratory safety and proposal development.

**Credits** 3

**Prerequisite Courses**

BIOL260N

## **Business**

### **BUS101N : Introduction to Business**

This is an introductory course designed to survey the functions of business, while exploring current trends and learning about business opportunities. Topical discussions will include, but will not be limited to the environment in which businesses operate, business structures, business ownership models, industry competitiveness, and resource utilization.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

### **BUS104N : Principles of Marketing**

This course places an emphasis on the four P's of marketing: Product, price, promotion, and place (distribution). In-depth analysis of consumer versus business customers, products, pricing strategies, consumer behavior, advertising, promotion, personal selling, and distribution channels are offered. Marketing strategic planning and marketing research are covered as well.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BUS110N : Principles of Management**

This is a survey course designed to expose the student to nature of the organizational environment and the major activities performed by its managers. The course is organized around the functions of management: planning, organizing, leading, and controlling; thus making it possible for students to use the techniques of management in a systematic way. Case studies are used to apply the principles of management to hypothetical business situations.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BUS201N : Human Resources Management**

The purpose of the course is to familiarize the student with the scope and content of the human resource management function. Through case analyses and lectures, this course studies the relationship between employees and human resource managers in employment planning, staff recruitment and selection, training and development, performance appraisal and compensation systems, and the promotion of equal employment opportunity.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

BUS110N.

**BUS204N : Small Business Management: A Capstone Course**

This is the Management capstone course, which studies management techniques as applied to small businesses. Topics involve the requirements necessary to launch a new venture and manage it as an ongoing business. Discussions will cover business plan development, computer applications, human resources, purchasing, marketing, taxation, risk management, and control procedures. The development of a comprehensive business plan allows students to plan for a new venture of their choosing, which is presented in both an oral and written proposal.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ACCT101N, BUS110N.

**BUS206N : Consumer Behavior**

This course is a study of how the field of marketing influences the actions of consumers and how marketing influences the retailing process. This course provides the student with an understanding of consumer behavior, the buying process, product life cycles, and the consumer adoption process. This course highlights the importance of studying merchandising effects on consumers.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

BUS104N.

**BUS207N : Sales**

This course covers the planning, direction, organization, and control of the personal selling effort. Emphasis is placed on the relationships between sales and selling activities, as well as other marketing functions. Students will have numerous opportunities to create different types of sales presentations aiming at the business to business, and business to consumer markets.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BUS210N : Marketing Strategies A Capstone Course**

This capstone course integrates the theories, models, and concepts covered in other marketing courses. Special emphasis is placed on the development and application of creative analytical problem solving techniques to a wide range of marketing problems.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

BUS104N, BUS215N.

**BUS213N : Principles of Advertising**

This course is an introduction to the field of advertising, which covers the procedures and theories of creating and using advertisements. The course also focuses on the marketing manager's role in designing the firm's advertising program within an overall corporate strategic plan.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BUS215N : Integrated Marketing Communications**

This course provides an overview of marketing communications methods such as advertising, public relations, personal selling, and sales promotion. Emphasis is placed on how these methods are used for direct marketing campaigns. The relationship selling model is emphasized within the overall framework of marketing communications. Students utilize these methods and develop an integrated marketing communications plan. This course assumes some basic knowledge of marketing communication and promotion theory and practice on the part of the students but does not require any specific work experience.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

BUS104N.

**BUS218N : Dynamics of Organizational Behavior**

This course provides an overview of individual and group behavior within an organizational setting. Discussion topics include motivation, power, political behavior, team development, leadership, culture, and organizational constraints. Case studies are used to illustrate how theoretical models can be applied to various scenarios.

**Credits** 3

**BUS220N : Honors Leadership in the Workplace**

This course provides the critical element of analytical and intellectual examination and reflection of certain core issues in the practice of leadership. Understanding of these concepts will be achieved through open discussion, honest self-assessment, experiential exercises and observation of real-life leadership practice. Traits and behaviors of leaders setting the ethical tone of the organization are also studied. Examination of the confusion and gray areas involved in leadership initiatives sets the tone for this as an honors level course.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BUS230N : Introduction to Management of Information Systems**

This course is designed to provide a descriptive and functional definition of management information concepts. The organization will be viewed as a total system with three subsystems: management, operations, and information. The student will examine the interactions and procedures of the information subsystems, such as scheduling, production, inventory, sales, purchasing, planning, finance, accounting, and human resource management. Discussion topics include the information requirements of an organization and the interaction of systems hardware, software and data management.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BUS240N : Business Law**

This is an introductory course in business law. Discussion topics include the origin of law, the federal and state court systems, contract law, and the Uniform Commercial Code. The case study approach will be used so that legal concepts can be applied to various business scenarios.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**BUS290N : Management/Small Business Entrepreneurship Internship**

An internship program in the Department of Business is a hands-on learning experience at a for-profit or not-for-profit organization, which allows the student to practice competencies and skills learned in the classroom under the direct supervision of an on-site internship advisor.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

Completion of all catalog-listed courses for the first three semesters in a business student's respective program of study.

**BUS294N : Marketing Internship**

An internship program in the Department of Business is a hands-on learning experience at a for-profit or not-for-profit organization, which allows the student to practice competencies and skills learned in the classroom under direct supervision of an on-site internship advisor.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

Completion of all catalog-listed courses for the first three semesters in a business student's respective program of study.

## CADD

### **CAD111N : CADD I**

CADD I is the study of graphical communication. The drafting fundamentals studied in this course will include 3D Solid Modeling, blueprint reading, measurement, geometric construction, orthographic projection, section views, dimensioning, threads and fasteners. All work is performed using current CAD software (Solidworks) on personal computers.

**Class Hours** 3

**Lab Hours** 4

**Credits** 5

### **CAD112N : CADD II**

CADD II will continue the study of graphical communication exploring advanced 3D Solid Modeling, geometric dimensioning and tolerancing, manufacturing methods, spring and cam design. Students will learn all of the components necessary to design in a 3D environment including solids, surfaces, parts and assemblies, applying materials, and creating animated assemblies.

**Class Hours** 3

**Lab Hours** 4

**Credits** 5

#### **Prerequisites**

CAD111N or Permission of the Instructor.

### **CAD131N : Technical Drawing**

This course covers the basics of drafting fundamentals including blueprint reading, measurement, geometric construction, orthographic projection, section views, auxiliary views, dimensioning and tolerancing, threads and fasteners. All work is performed using current CAD software (Solidworks) on personal computers. This course is designed for the Precision Manufacturing student.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

### **CAD215N : CADDIII**

CADD III will continue advanced 3D graphic communications using CREO (formerly Pro Engineer) solid modeling software. Students will learn advanced 3D solid design, tolerancing, detail and assembly drawings, mass properties and advanced manufacturing techniques. Communications between different CAD programs will be introduced. Students will learn the basic steps in the design process including design for manufacture concepts.

**Class Hours** 3

**Lab Hours** 6

**Credits** 5

#### **Prerequisites**

CAD112N, MTTN118N, or Permission of the Instructor.

## Chemistry

### **CHEM110N : Chemistry for Health Sciences**

This introductory chemistry course provides students with conceptual and hands-on experience with fundamental principles of chemicals. Included are topics in atomic structure, chemical bonding, periodic table, solutions, medication math calculations, gas laws, acid-base and reduction/oxidation reactions, chemical equilibrium, thermodynamics, and an introduction to organic and biochemistry as it pertains to the cell. This course does not fulfill the requirements of [CHEM130N](#) & [CHEM131N](#) or Organic Chemistry I & II.

**Credits** 4

#### **Notes**

This course fulfills a General Education Core Requirement: Science.

### **CHEM130N : General Chemistry I**

This chemistry course introduces the student to the principles of chemistry included in the first semester of a two-semester chemistry course. The course will include topics such as matter, stoichiometry, chemical reactions, gas and kinetic-molecular theory, thermochemistry, quantum theory and atomic structure, chemical periodicity, chemical bonding, and molecular geometry. Principles taught in lectures will be reinforced in laboratory experiments.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

#### **Prerequisites**

Placement into MATH110N or MATH120N.

#### **Notes**

This course fulfills a General Education Core Requirement: Science.

### **CHEM131N : General Chemistry II**

MATH/SCIENCE options within Physical/Biological Sciences and Mathematics \*\*BIOL201N A&PI, \*\*BIOL202N A&PII, BIOL205N Basic Pathophysiology, BIOL207N Immunology, BIOL260N Scientific Inquiries, \*\*BTEC205G- Bioethics (on-line GBCC, fall only option), MATH110N Algebra & Trigonometry, \*\*MATH210N Calculus I, \*\*MATH211N Calculus II, or greater,\*\* PHYS130N Physics I,\*\* PHYS131N Physics II, or greater.

This general chemistry course is designed to teach students the principles of chemistry included in the second semester of a two semester chemistry course. This course will include topics such as intermolecular forces, properties of solutions, kinetics, chemical equilibrium, acid-base equilibrium, electrochemistry, and thermodynamics.

**Class Hours** 3

**Max Class Hours** -4

**Lab Hours** 0

**Max Lab Hours** -3

**Credits** 4

#### **Prerequisites**

CHEM130N with a 'C' or better

#### **Corequisites**

MATH120N.

## **Collision Repair**

### **CRTN101N : Basic Collision Repair**

A student must earn a 'C' or better to achieve a passing grade in this course.

The theory and development of skills required in making auto body sheet metal repairs. Procedures in the proper use of equipment, tools and materials to straighten, shrink, and restore automobile sheet metal will be covered. Students will learn vehicle disassembly procedures. Shop safety will be stressed and applied. A minimum grade of 'C' is required for progression in Collision Repair Courses.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

### **CRTN102N : Introduction to Collision Repair**

A student must earn a 'C' or better to achieve a passing grade in this course.

This course covers the following: The Auto Body Industry, shop operations, OSHA and EPA Regulations, hand and power tools, shop equipment, service procedures, fasteners and hardware. Students will explore various opportunities in the Auto Body Repair Industry. A minimum grade of 'C' is required for progression in Collision Repair Courses.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

### **CRTN105N : Basic Automotive Refinishing**

A student must earn a 'C' or better to achieve a passing grade in this course.

The theory and development of skills required to properly prepare an automobile for refinishing. Topics include the selection of abrasives, primers, sealers and other refinishing materials. The proper use of painting equipment such as compressed air systems, respirators, spray guns, paint booths, and drying systems will be covered. Spray gun handling and technique will be covered. Laws, regulations and safety regarding the handling of paint materials will be emphasized. A minimum grade of 'C' is required for progression in Collision Repair Courses.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

### **CRTN125N : Intermediate Automotive Refinishing**

The theory and development of skills required to properly prepare various panels and vehicle bodies for refinishing. Students will learn to identify paint codes, utilize proper masking techniques, mix and apply single and two stage finishes. Procedures in the application of chip resistant coatings and seam sealers plus final detailing of vehicle finishes will be covered. Shop safety will be stressed and applied.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

#### **Prerequisite Courses**

CRTN101N

CRTN102N

CRTN105N

**CRTN135N : Mechanical/Electrical Systems I**

The development of skills and knowledge working with automobile cooling systems, HVAC and basic electrical systems will be covered. Shop safety will be stressed and applied.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**Prerequisite Courses**

CRTN101N

CRTN102N

CRTN105N

**CRTN140N : Collision Repair Welding**

A student must earn a 'C' or better to achieve a passing grade in this course.

This course is designed to develop basic welding and cutting skills for metals used in the construction of automobiles. Students will learn the proper selection, set up and operation of Oxy-Acetylene, GMAW (MIG), TIG, Resistance Spot Welding and Plasma Cutting. Discussion about aluminum welding will be covered. A minimum grade of 'C' is required for progression in Collision Repair Courses.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**CRTN151N : Intermediate Collision Repair**

Students will receive instruction and practice in the removal and replacement of mechanically attached panels, including but not limited to: Fenders, doors, bumpers, hoods and deck lids. Instruction on moveable glass, stationary glass, water leaks and wind noise will be covered. Shop safety will be stressed and applied.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

CRTN101N, CRTN102N, CRTN105N.

**CRTN190N : Collision Repair Co-Op Work****Experience**

The Collision Repair Co-Op Work Experience is designed to place students into a shop environment after successful completion of all first-year courses. Students will be assigned work tasks to reinforce the skills obtained in their courses at NCC. Tasks will include but not limited to: minor dent repair, disassembly/ assembly of damaged vehicles, prepping parts, detailing, priming, refinishing small parts under the supervision of a senior technician. Students will complete a minimum of 200-hours total in the Co-op. This is a paid Co-Op Work Experience. Students may be required to bring their tool kit to the Co-Op location. Students will be responsible for completing a journal that will document the hours worked, assigned tasks, and overall work experience. This course will be designated as a Pass/Fail course. Periodic Co-Op visits will be performed by the assigned instructor to monitor student progress.

**Class Hours** 0

**Lab Hours** 12

**Credits** 2

**Prerequisites**

Successful completion of all first and second semester coursework and a minimum CGPA of 2.0.

**CRTN201N : Advanced Collision Repair**

Theory and development of skills to repair and replace welded and bonded panels used in automobile construction. Students will study and practice repair to plastic panels such as bumpers and exterior trim. Practice in removing and replacing fixed glass in accordance with industry accepted procedures. The study of aluminum panel repair will be discussed. Shop safety will be stressed and applied.

**Class Hours** 2

**Lab Hours** 6

**Credits** 4

**Prerequisite Courses**

CRTN151N

**CRTN210N : Structural Analysis and Repair**

Students will practice anchoring, straightening and repairing structural components of full frame and unibody vehicles. Demonstrations and hand on activities repairing and replacing various components such as frame rails, radiator supports, pillars and quarter panels will be covered. Identifying methods of cold stress relief and using heat to straighten metal will be discussed. Shop safety will be stressed and applied.

**Class Hours** 2

**Lab Hours** 10

**Credits** 6

**Prerequisites**

Successful completion of first year Collision Repair courses

**Corequisites**

CRTN235N, PHYS101N



**CRTN225N : Advanced Automotive Refinishing**

This course covers the skills and procedures needed to apply topcoat finishes to the automobile. The course will cover such topics as color theory, paint mixing, blending and tinting techniques, and paint defects. Application of topcoat finishes will include single stage, basecoat/clearcoat, multi-stage, waterborne, and custom paint systems. Safety and proper handling of refinish materials will be emphasized. All students will refinish body panels and complete vehicles in a controlled environment.

**Class Hours** 2**Lab Hours** 6**Credits** 4**Prerequisite Courses**

CRTN125N

**CRTN230N : Estimating and Customer Service: A Capstone Experience**

Students will learn to assess damages using industry accepted estimating service provider's information. The study of economics in damaged vehicles and their repairs will be discussed. Customer relations and sales skills will be practiced. Students will learn about working with the customer, the insurance company and developing a repair plan. This course includes a Capstone project.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Prerequisites**

Successful completion of all Collision Repair coursework or permission of Program Coordinator

**Corequisites**

CRTN201N, CRTN225N, CRTN245N.

**CRTN235N : Mechanical/Electrical Systems II**

The study of automotive steering and suspension systems, braking systems and drive trains. Students will have demonstrations and hands-on exposure to typical repairs encountered in a collision repair shop. Shop safety will be stressed and applied.

**Class Hours** 2**Lab Hours** 3**Credits** 3**Prerequisites**

Successful completion of all first year Collision Repair courses.

**CRTN245N : Mechanical/Electrical Systems III**

Students will learn electrical component testing and diagnosis on switches, relays, motors, connectors and wiring. Discussion and demonstrations of safety with high voltage systems on hybrid vehicles will be covered. Inspection and replacement of fuel system and exhaust system components. Students will have hands on practice replacing supplemental restraint systems and components as well as diagnose DTC's related to SRS. Shop safety will be stressed and applied.

**Class Hours** 2**Lab Hours** 3**Credits** 3**Prerequisite Courses**

CRTN235N

## Communication

**COMM101N : Introduction to Media Studies**

This course studies the mass media in historical and contemporary contexts, focusing on the structure, function, audiences and effects of the news and entertainment industries. Issues such as legal, economic, social and psychological implications within society will be analyzed. This course contains a service learning option. A minimum grade of B- is required to remain in the Communications program.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Prerequisites**

ENGL101N or ENGL110N

**Notes**

This course fulfills a General Education Core Requirement: English/Communications.

**COMM102N : Principles of Communication**

A survey of the basic theories and principles of human communication by first exploring the fundamental processes central to communication (e.g. listening, verbal and nonverbal communication, message, channel, medium) and then applying those processes to various communication contexts including interpersonal, intrapersonal, small group, public, organizational, and mass communication.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Prerequisites**

ENGL101N or ENGL110N.

**COMM115N : Introduction to Media Writing**

This course will introduce students to the application of writing principles for various forms of media copy: print news and features; broadcast news for radio and television, public service announcements, advertising, social media, and public relations. Topics covered in this class include: hard news; feature writing; AP style; crafting effective leads; editing; organizational media; interviewing techniques; blogging; identifying and targeting audiences; public service announcements; press releases; and communications ethics and theory. A minimum grade of B- is required to remain in the Communications program.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**COMM120N : Introduction to Public Relations**

This course introduces the student to the public relations process and management in addition to the role of the public relations practitioner. The course will discuss how public relations differs from other communication disciplines and how corporate and nonprofit institutions use public relations as a strategic communication tool. Ethics and social responsibility and the impact of social media will be defined. Students will apply public relations practice through a course service learning component.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**COMM125N : Introduction to Broadcasting**

This course will introduce the student to the study of broadcast media. It will trace the development of radio and television through inception to the present day. Social, cultural, economic, and political issues associated with the industry are presented allowing the student to gain greater insight into the origin, roles, operation, and changing philosophy of broadcasting in the United States. Examples of news gathering and reporting, advertising and entertainment are examined.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**COMM204N : Screenwriting**

Students will learn and apply the techniques and principles of scripting movies and will examine the writing process from idea conception to completed work. Topics covered include: Writing scripts that connect to audiences; screenplay story structures, conventional and unconventional; the sophisticated nature of storytelling through description; the language of screenwriting; characterization and arc; and peer evaluation.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N with a grade of 'C' or better.

**COMM206N : Social Media**

Today's society is directly impacted by social media. Twenty-first century political, social and economic changes have been effected through the use of social networking. In the competitive media world, journalists must possess social media skills. This course will focus on the analysis and use of current and emerging social media, such as Twitter, Facebook, Tumblr, YouTube, SnapChat, Pinterest, Reddit, and other platforms. Students will explore the history, effect, appropriate uses of social media and will learn to craft appropriate messages utilizing the various platforms for different genres of journalism.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**COMM210N : Perspectives in Film**

This course explores a body of narrative and or non-narrative films related by virtue of style, director, themes, technology or historical perspective. Analysis of the films allows students to critically consider the role and value of film as part of a participatory culture in a shifting media landscape.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**COMM230N : Blog Writing**

Applying evolving principles of Internet blogging, students will analyze existing blogs, create a blog, use writing skills and graphics to create compelling blog posts, and learn how to market and promote their blog online.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

### **COMM285N : Communications Internship**

This course prepares students for an advanced study of communications at the bachelor degree level and will serve as the capstone experience for Communications students enrolled in the Liberal Arts program. The course is designed to help students synthesize the learning and skills acquired in their program with reality-based application through an on-site internship. Career planning may be strengthened by mentoring relationships developed through the internship experience. Pre-approval of the internship site and intended project by the program coordinator before placement; approved placement is expected prior to the semester start.

**Credits 3**

#### **Prerequisites**

Completion of 45 credits of coursework applicable to the Communications program. Minimum grade of 'B-' in ENGL101N or ENGL110N, COMM101N and COMM115N must be achieved to register for COMM285N.

## **Computer Networking**

### **CSCN101N : Computer Architecture and Operating Systems**

Computer architecture refers to the basic components that make up a computer system. This includes the operation and interrelation of its internal components and peripheral devices, its memory organization, Basic I/O System (BIOS), and storage. Students will become sufficiently familiar with computer hardware to be able to build or fix computers. Windows, Linux, MacOS and Android operating systems will be introduced with emphasis on Windows OS. Students will be introduced to very basic administration both in native and virtualized systems. Command line and scripting leading to the first programming concepts will be presented. Shell scripting or interpreter, such as Python, may be used. The content of this course is intended to reflect the objectives of the industry recognized A+ Certification, which identifies skills required by IT technicians. This course offers an optional service learning component. Students who take this course online should plan on having computer parts available.

**Class Hours 2**

**Lab Hours 3**

**Credits 3**

### **CSCN104N : Internet of Things**

Internet of Things prepares a student to understand, design, implement, and maintain a modern communications system. Current systems are focusing on the convergence of voice, data, and video all transmitted across a common network structure. This course introduces the various media that are used in the transmission process. It includes, but is not limited to: Twisted Pair Cable, Coaxial Cable, Fiber Optic Cable, and Wireless technologies. Students will be exposed through simulation or hands on to PLCs and Single Board Computers such as Raspberry Pi. Students will discuss detections and response to stimuli using current methods. Students will be expected to learn to communicate their technical knowledge to both technical and non-technical audiences. Online students may need to purchase a small toolkit.

**Class Hours 2**

**Lab Hours 2**

**Credits 3**

### **CSCN116N : Networking Basics**

This course introduces the basic concepts and principles that underlie computer networking using the Open Systems Interconnection (OSI) model and TCP/IP protocol suite. It presents an overview of networking terminology, examines different networking topologies and architectures, discusses the physical components of computer networks and reviews the principles of network connectivity. It also examines the implementation through design and installation of simple Ethernet networks. Although there is no prerequisite for this course, students who are relatively new to working with computers should consider taking [CSCN101N](#), or [CSCN104N](#) as a prerequisite or corequisite.

**Class Hours 2**

**Lab Hours 2**

**Credits 3**

**CSCN150N : Fundamentals of Cybersecurity**

This certificate is directed at professionals in the field who want to increase their specific knowledge of cybersecurity. Students who do not have any professional experience should take CSCN101N and CSCN104N before attempting this class.

This class is an introductory survey course in Cybersecurity. The class focuses on the principles of confidentiality, integrity, and availability. Students will be introduced the concepts and skills required to install and configure systems to secure applications, networks, and devices; perform threat analysis and respond with appropriate mitigation techniques; participate in risk mitigation activities; and operate with an awareness of applicable policies, laws, and regulations. This course is a first step towards providing the deep technical knowledge needed to effectively design, implement, and manage the overall cybersecurity of an organization. Although there is no prerequisite for this course, students who are relatively new to working with computers should consider taking [CSCN101N](#) and [CSCN104N](#) as a prerequisite.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**CSCN170N : Linux Essentials**

This course introduces the essentials of working with the Linux operating system. It provides an overview of current Linux distributions, command line operations, including redirection, piping and the use of text and stream editors. File system organization is covered, as well as archiving, backups and the use of file and directory permissions for access control. Additional topics include scripting, basic user administration, management and scheduling of processes, networking and application installation and updates.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**CSCN204N : Administering Windows Servers**

This course will introduce students to the current Microsoft Windows Server operating system through lectures, demonstrations, discussions, and hands-on labs. Students will perform an installation of how to manage Active Directory objects. Students will use Microsoft Management Console to monitor system performance and to administer user accounts, and group policies. They will learn how to administer print services and also learn how to manage and maintain hardware in a Windows Server environment.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite Courses**

CSCN116N

**CSCN210N : Advanced Windows Servers**

This course is a continuation of [CSCN204N](#), Administering Windows Servers. The course covers the skills and knowledge necessary to configure, manage and troubleshoot a Microsoft Windows Server network infrastructure, including such servers as DFICP, DNS, Routing and Remote Access Server, File Server, Print Server, Windows Software Update Services Server, and Active Directory Certificate Service. The student will also utilize a number of security tools, such as IPSec and Network Access Protection, as well as a number of monitoring tools provided by the operating system.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite Courses**

CSCN204N

**CSCN211N : Cybersecurity Operations**

This course introduces the core security concepts and skills needed to monitor, detect, analyze, and respond to cybercrime, cyberespionage, insider threats, advanced persistent threats, regulatory requirements, and other cybersecurity issues facing organizations. Gain practical, hands-on skills needed to maintain and ensure security operational readiness of secure networked systems. This prepares the student for the CISCO CyberOps Associate Exam.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

CSCN216N or CCNA Certification and CSCN150N or Security+ Certification

**CSCN216N : Switching, Routing, & Wireless Essentials**

The second course in the CCNA curriculum focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area networks (WLAN) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify, and mitigate local area network (LAN) security threats, and configure and secure a basic WLAN.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisite Courses**

CSCN116N

**CSCN217N : Enterprise Networking, Security and Automation**

The final course in the CCNA series covers the architecture, security, and operation of an enterprise network, along with introducing the new ways in which network engineers interact with programmable infrastructure. Gain skills to configure and troubleshoot enterprise networks, learn to identify and protect against cybersecurity threats, and discover key concepts of software-defined networking, including controller-based architectures and application programming interfaces (APIs).

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite Courses**

CSCN216N

**CSCN220N : Android I**

This is the first introduction to Android Operating Systems, Android Studio and Mobile Systems. This course will teach students how to develop applications for Mobile Devices. Since it is an entry level course, it will deal with data entry, processing and storage. Basic control structures will be introduced. Life cycle of the product will be discussed. Students will learn about user interfaces, built-in widgets and components.

**Credits** 3

**Prerequisite Courses**

CSCN170N

**CSCN250N : Network Security Analysis**

Network Security Monitoring is an essential activity for enterprise cybersecurity. This course will expand on tools and methods needed for carrying out this task. In today's environment it is unlikely that a network will be free of any intrusion attempts. Detecting these attempts and mitigating them makes a difference between a small incident and a major compromise of the network. The students will learn to use open source solutions such as Security Onion and Snort for collecting data, detecting intrusion, and analyzing the data. Upon completion of this course students will have the skills needed to be an effective network security analyst. This course requires a strong understanding of the TCP/IP suite of protocols and the Linux operating system prior to starting.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

CSCN170N and CSCN216N or CCNA Certification, and CSCN211N or CyberOPs Associate Certification.

**CSCN286N : Networking Capstone Project**

This course draws together the major goals of the Computer Networking degree: designing a network, implementing that design, providing services to users on that network and maintaining that network. In addition, the course integrates the important ability to communicate technical information to both technical and non-technical individuals. Students will choose, design, or be assigned a project that incorporates the components identified above in the form of a Request for Proposals. Both a written solution and an oral presentation of that solution will be required.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

CSCN217N, or CSCN210N

**CSCN290N : Computer Science Internship**

The internship program allows the student to apply, in a work environment, competencies and skills learned in the classroom. Internship activities include a weekly seminar in which the different business structures and work experience will be shared. Students will keep a journal of their work experience. A final report will be written to evaluate work experience. This course offers a service learning option.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

Substantial completion of all catalog-listed courses for the first three semesters in the Computer Science program and approval of the internship coordinator.

# Computer Science

## **CSCI106N : Introduction to Software & Web Development**

This is a survey course for both the Web Application and Software Development programs. This course will examine fundamental aspects of computing such as, the role of an operating system, the history of computers, computer data representation and the stored program concept. The student is introduced to these concepts in order to form a foundation to be utilized and enhanced by other program-related courses.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

## **CSCI107N : HTML**

Minimum grade of 'C' or better required for this course.

This course provides the foundation for all web and application page development. The focus is on building HTML pages which comply with industry standards and best practices. Page structure and tags are presented, including text, images, multimedia content, tables, forms and inputs and accessibility considerations.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

## **CSCI108N : HTML and CSS**

Minimum grade of "C" or better required for this course

This course extends the student's knowledge of HTML by describing the full life cycle of web or application page development, from the design comp, through coding the content with HTML and applying the design with CSS. Students will design and code a website with at least four pages as a final project.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

Grade of 'C' or better in CSCI107N.

## **CSCI120N : Introduction to Scripting - Python**

This course introduces the use of Python as a scripting language. It covers the syntax, data types, conditional control structures, looping and the use of functions. The use of lists, dictionaries and sets is described. Object-oriented terminology and programming concepts are introduced, including the use of classes, methods and properties. The selection and use of libraries is included. The course covers data retrieval, analysis and reporting using tuples read from files, NoSQL and SQL databases. Labs allow students to apply the concepts taught, students will learn how to create and execute Python scripts as well as debugging, testing and troubleshooting techniques.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

ACCUPLACER score recommendation into College level Mathematics.

## **CSCI130N : Databases - An Overview**

This course covers the fundamental concepts of database systems. Students will focus on two of the most common types of databases, SQL or relational and NoSQL or document-based databases. The course covers preparation of databases, how to import data efficiently and techniques to query and aggregate the data for analysis. The applications of different database types will be compared as well as important considerations when choosing databases and tools.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

CSCI120N or CSCI161N.

## **CSCI140N : Essentials of System Analysis & Design**

Minimum grade of "C" or better required for this course

This course provides an introduction to systems analysis and design. Students will be introduced to the basic principles and concepts of software engineering thereby providing the necessary foundation for subsequent software engineering courses. Topics include basic terminology and core software engineering concepts; the Software Development Life Cycle (SDLC); systems requirements gathering and selection; modeling systems using Data Flow Diagrams (DFD) and the Unified Modeling Language (UML); project scheduling using GANTT charts; database environment; and an introduction to a relational model.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

Grade of 'C' or better in CSCI161N.

**CSCI161N : Introduction to Programming**

Minimum grade of "C" or better required for this course.

This course serves as the first computer programming course. It introduces students to the concepts of problem solving, code development, and code organization. Students learn how to: define a problem, develop a solution, translate the solution into code, compile it, and run the program. Students learn basic principles of declaring variables and memory allocation. They learn control structures such as single, double, and multiple selections and various forms of looping. Students also learn simple data structures such as arrays, and simple on disk file structures such as text and random files. Finally, students learn to analyze existing algorithms and develop their own algorithms for solving applied problems. These concepts are taught using a contemporary programming language. Graphics are incorporated into the course to enhance the class content and enrich the content in a visual manner.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

Placement into MATH110N or concurrent enrollment in MATH110N.

**CSCI175N : Programming Using C++**

Minimum grade of "C" or better required for this course

This course is the first course in C++. The student's problem solving skills will be strengthened while learning C++. The importance of variable data types, arrays, if, if else, loops, and functions will be emphasized. Additionally the student will be introduced to pointers, structures, and selected preprocessor directives.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite or Corequisite**

MATH110N or equivalent ACCUPLACER score.

**CSCI201N : Client-Side Scripting Using JavaScript**

This course is an introduction to JavaScript programming. The students will be introduced to the following topics: Language constructs, form handling, input validation using regular expressions, events and event handlers, creating and using cookies, DOM (Document Object Model), and Ajax (Asynchronous JavaScript and XML). Students are required to develop and present a final project.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

CSCI108N (replaced CSCI103N) and a grade of 'C' or better in CSCI161N

**CSCI206N : Server-Side Scripting Using PHP**

The student is introduced to the fundamentals of server side scripting in a web server based environment. This course focuses on the fundamentals needed to design and create dynamic and interactive HTML pages that access information on the server. Students learn to design and develop applications for use in an intranet/ internet environment.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

CSCI108N (replaced CSCI103N) and a grade of C or better in CSCI161N..

**CSCI207N : Database Design & Management**

This course is an introduction to database design and management. The students will be introduced to the following topics: Database environment, the database development process, including information architecture and system planning, database analysis, database planning and design, the relational theory and terminology as well as normalization. The course will also introduce the student to CASE tools and their uses in the database development process. Additionally the course will study the Structured Query Language (SQL). Students will apply their knowledge with hands-on projects designed to teach the intricacies of database design.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

Grade of 'C' or better in CSCI140N or successful completion of CSCI206N or DATA105N.

**CSCI230N : Object Oriented Programming Using: C++**

In this course, the student will continue to develop proficiency in problem solving using more in depth abstract programming constructs using the C++ programming language and object oriented techniques. They will strengthen their knowledge of classes, inheritance and polymorphism. Templates and the Standard Template Library (STL), Exception handling and Operator Overloading will be discussed in detail. File processing will be discussed in greater detail. Students will be familiar with the data structures and algorithms as applied to the solving of everyday problems.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

Grade of 'C' or better in CSCI175N or ELET115N.

**CSCI278N : Data Structures Using C++**

This course is the fourth in the software development sequence. It introduces the student to algorithms used to represent data in an efficient manner. Standard data structures and problem solving techniques will be introduced. The data structures studies will involve stacks, queues, linked lists, trees, graphs and hash tables. These structures will be presented in an object-oriented manner using C++ language.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite Courses**

CSCI230N

**CSCI284N : Senior Website Development Lab: A Capstone Experience**

This is the website development program's capstone course. Students, in cooperation with supervising faculty members, demonstrate their mastery of website development competencies. They select a project and perform the work necessary to move it through the phases of the SDLC including project definition, project planning, systems analysis and process modeling including data flow and UML, systems design including GUI design and data structure design, project scheduling and project implementation and testing using one or more scripting or programming languages. Students are expected to present the completed project documents as well as to present the actual project to fellow students and department faculty members.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

Grade of 'C' or better in CSCI140N, successful completion of all of the following: CSCI201N, CSCN170N and CSCI207N

**Co-Requisite Courses**

CSCI206N

**CSCI285N : Senior Software Development Lab: A Capstone Experience**

This is a capstone course in the software development and website development programs. Students, in cooperation with supervising faculty members, demonstrate their mastery of their software development or website development competencies. They select a project and perform the work necessary to move it through the phases of the SDLC including project definition, project planning, systems analysis and process modeling including data flow and UML, systems design including UI or GUI design, project scheduling and project implementation including testing using one or more 3GL programming languages. Students are required to present the completed project documents as well as to present the actual project to fellow students and department faculty members.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

Grade of 'C' or better in CSCI140N and successful completion of CSCI207N

**Co-Requisite Courses**

CSCI278N



**CSCI290N : Computer Science Internship**

The internship program allows the student to apply, in a work environment, competencies and skills learned in the classroom. Internship activities include a weekly seminar in which the different business structures and work experience will be shared. Students will keep a journal of their work experience. A final report will be written to evaluate work experience. This course offers a service learning option.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

Substantial completion of all catalog-listed courses for the first three semesters in the Computer Science program and approval of the internship coordinator.

## Criminal Justice

**CRMJ101N : Introduction to Criminal Justice**

This course provides an introduction to the American criminal justice system. Students will learn about the core components of the criminal justice system, including the police, courts, and the correction field. The overall goals of the criminal justice system will be addressed with particular attention given to the competing goals of the crime control and due process models. Students will learn about the interconnectedness of the various components of the criminal justice system from a 'systems' perspective.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**CRMJ102N : Criminology**

This course offers students an opportunity to think critically about crime and criminals in American society. Students will review the history of crime in the United States and evaluate the ongoing relationship between crime and significant events in society, such as economic crises and the development of new technologies. Emphasis will be given to understanding both the relationship between social structure and crime and the role of socialization and primary relationships. Students also explore the ways that cultural beliefs, fear, and stereotypes shape the way we think about and respond to crime.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**CRMJ121N : Criminal Investigation**

This course introduces the fundamental principles and techniques of criminal investigation. Students will explore a variety of topics including crime scene processing, evidence collection, the development of information sources, identification by witnesses, interviews and interrogation, admissions, and case preparation.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

CRMJ101N

**CRMJ122N : Law Enforcement Organizations**

This course examines the organization, management, and administration of criminal justice agencies from a theoretical perspective. Students will be given the opportunity to evaluate how the structure and functions of such agencies affect the administration of justice at the local, state, and federal levels.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

CRMJ101N

**CRMJ220N : Juvenile Justice**

In this course, students will examine theories, causative factors, and treatment in regard to youthful offenders. The philosophy behind and development of treatment and rehabilitative practices are explored. Adolescent behavior, peer pressure, and the role of the family will be examined. This course also includes legal, procedural, and substantive issues pertaining to the juvenile justice system.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

CRMJ102N

**CRMJ240N : Criminal Law and Prosecution**

In this course, students will examine the purposes, scope, and sources of criminal law. Students will learn to differentiate the jurisdictional issues and requirements within the criminal court system and discover the essential elements of a crime. The relationship between these elements and an investigation will be explored. Students will evaluate a variety of criminal offenses and the application of criminal liability, criminal responsibility, and an individual's capacity to commit a crime. Students will gain an understanding of criminal prosecution and the corresponding criminal defenses.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

CRMJ101N

**CRMJ260N : Criminal Procedure**

In this course, students will analyze the constitutional issues in the United States which have direct bearing on the role and policies of the criminal justice system. Application of these issues as they relate to investigations, arrest, pretrial and appeal will be emphasized.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

CRMJ240N

**CRMJ265N : Corrections**

In this course, students will study the correctional processes and services, standards, personnel and principles of management; allocation of resources, training and staffing; the role of sentencing and work release programs; special programs and the use of outside contracts will be examined.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

CRMJ122N

**CRMJ280N : Criminal Justice Internship**

In this course, students will have the opportunity to put learned theory into practical application as an intern. The student is responsible for seeking out the agency placement, with the assistance of the course instructor. The internship requires the completion of a mandatory minimum number of hours. A journal is maintained by the student and the final grade is based on a combination of the completion of hours, the journal, a supervising agency assessment, and an analytical report.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

Completion of 45 credits of coursework applicable to the Criminal Justice associate degree program.

**CRMJ285N : Criminal Justice Senior Project**

In this course, through on-going and individualized contact with the supervising instructor, the student develops a topic preapproved through a prospectus presented to the instructor. The student may develop any topic raised in any major class and is not limited by category. Empirical studies, surveys, literature reviews are among the acceptable categories of research. The final grade is determined by a review of the final product and the extent to which the student has followed the course guidelines.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

Completion of 45 credits of coursework applicable to the Criminal Justice associate degree program.

## Culinary Arts

**CULA103N : Culinary Skills and Procedures**

This is a foundation course for students embarking on culinary careers. It emphasizes basic cooking techniques, culinary terminology and the proper uses of culinary tools. The class consists of a one hour weekly lecture and a five hour lab consisting of a demonstration of food preparation by the instructor followed by hands-on food production by the students. Goals of the course include learning the importance of detailed organization, or "Mise en Place," correct cooking procedures and appropriate attitudes towards the culinary profession as developed by the culinary program and the American Culinary Federation.

**Class Hours** 1

**Lab Hours** 5

**Credits** 3

**CULA105N : Food Safety and Sanitation**

This aspect of the Culinary Arts Program delivers consistent food safety and sanitation training to culinarians and culminates in an exam where the student is required to take an examination to become Serve-Safe Certified.

**Class Hours** 2

**Lab Hours** 0

**Credits** 2

**CULA120N : Fundamentals of Baking**

This course introduces students to the fundamental elements of baking terminology, methods, science, ingredients, weights and measures, formula conversion, and storage. Topics include formulation of yeast-based products, the functions and properties of various flours, fats sugars, leaveners, and other baking ingredients. Students will spend lab time applying their knowledge in the production of various products. Proper sanitation and safety techniques on the bakery will be emphasized.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**CULA135AN : Customer Service I**

This course focuses on the basic principles of customer service in the hospitality industry from a front of the house perspective. Theories will be explored in the context of a changing service industry. Hiring, training, motivation, directing, delegation and solving problems are emphasized. Traditional service styles, pairing of food and wine, beverage service and liability and tableside cooking are taught. In the service lab students will practice a variety of service styles and participate in advanced service and supervisory duties as they relate to the operation of public restaurants and banquet facilities. Service periods may include weeknights and Saturdays.

**Class Hours** 1

**Lab Hours** 5

**Credits** 3

**CULA135BN : Customer Service II**

This course focuses on the basic principles of customer service in the hospitality industry from a front of the house perspective. Theories will be explored in the context of a changing service industry. Hiring, training, motivation, directing, delegation and solving problems are emphasized. Traditional service styles, pairing of food and wine, beverage service and liability and tableside cooking are taught. In the service lab students will practice a variety of service styles and participate in advanced service and supervisory duties as they relate to the operation of public restaurants and banquet facilities. Service periods may include weeknights and Saturdays.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

CULA135AN

**CULA140N : Nutritional Cuisine**

Students will learn to apply sound nutritional principles to food preparation and menu planning, in order to provide nutritionally balanced but appealing meals for today's health conscious consumer. The importance of nutritional guidelines, food selection, alternative preparation techniques and presentation is stressed and demonstrated in daily production.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**Prerequisite Courses**

CULA103N

**CULA210N : Intermediate Food Preparation**

In this course students will advance their studies from the basic food preparation course. Topics include a full range of food preparation techniques including advanced soups, sauces, salads, fish and other seafood, poultry, meats, vegetables, starches and grains. A la Carte and buffet setups will be utilized as presentation methods.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

CULA103N

**CULA211N : American Regional Cuisine**

This course will present culinary principles and techniques of Escoffier. Students will learn cooking techniques, timing, and presentation and learn history and terms pertaining to foods and menus with emphasis on American regional cuisines.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

CULA210N

**CULA212N : International Cuisine**

This course provides a food tour of the world. Students will study the individual cultures and religions of chosen global regions and the cultural effects upon the predominant indigenous cuisine from them. The class will include lecture, some video, cooking demos and cooking techniques along with daily product identification to showcase how different ingredients and products shaped specific cuisines. There will be a strong emphasis on preparation and setup for volume production and buffet presentation. Recipes will be provided for each lab and will be scrutinized to produce authentic food that reflects ethnic tradition and food production methods of each global region.

**Class Hours** 1

**Lab Hours** 5

**Credits** 3

**Prerequisite Courses**

CULA210N

**CULA215N : Garde Manger**

This laboratory-based class emphasizes garde manger utilization and preparation of appetizers, forcemeats, condiments, and hors d'oeuvres. Topics include hot and cold hors d'oeuvres, pates and terrines, sausages, canapes, garnishing, carving, and decorating.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

CULA210N

**CULA222N : Classical Cuisine**

This course will explore the history of classical cuisine and its origins. The accomplishments of our forefathers will be explored and their impact on cooking discussed. Students will absorb these concepts and hone their techniques in order to apply them to modern day cooking. Historical chefs like Escoffier and Careme will be introduced and explored. Classical cuisine will be an overview of how cooking has evolved throughout time and will conclude with modern technology, equipment development and the evolution of food products.

**Class Hours** 1

**Lab Hours** 5

**Credits** 3

**Prerequisite Courses**

CULA210N

**CULA225N : Intermediate Baking**

This course is a continuation of [CULA120N](#). A lecture and lab format is used to introduce students to techniques used in the production of chiffon. Bavarian creams, mousses, pastry cream and other fillings, phyllo dough products, cakes and icings. Basic cake decorating techniques are also introduced.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

CULA120N

**CULA230N : Quantity Food Production**

Meets at NH Food Bank in Manchester, NH.

The fundamentals of food preparation, and application of these principles to quantity food production in commercial and noncommercial settings. Emphasis is placed on the use of quantity food preparation equipment, and menu planning. In addition, the nutritional components of each food will be reviewed to ensure students are aware of the quality and nutritional values of various foods and methods for maintaining nutrition throughout food preparation and service. Students will also learn work simplification, and standardized production. Major cooking equipment will also be discussed. This course meets at the NH Food Bank, Manchester NH.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

CULA103N

**CULA236N : Classical Baking and Plate Composition**

Students in this course will expand on the baking knowledge they attained in [CULA225N](#) (Intermediate Baking). Students will become more proficient in baking techniques through lectures, demonstrations and participation in baking labs. Emphasis is placed on the basic techniques and presentations of American and traditional desserts, terminology, equipment and techniques. Particular emphasis is given to decorative projects.

**Class Hours** 1

**Lab Hours** 4

**Credits** 3

**Prerequisite Courses**

CULA225N

**CULA245N : Menu Development and Cost Controls**

This course introduces students to the intricacies of menu development for foodservice establishments. Topics to be covered include menu development, descriptions, layout, design, and pricing, sales mix, and station balance. Students will also be introduced to proper procedures for purchasing, receiving, storage and issuing of perishable and non-perishable foods. Emphasis is on the development and use of purchasing specifications, quality control, and cost control in purchasing and menu applications. Students will be involved in critiquing and creating menus from the perspective of concept, clarity, cost, price, and efficiency. The students will also learn the principles of recipe development in a weekly lab, including recipe testing and yield testing.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**Prerequisites**

All first year Culinary courses and CULA290N.

**CULA290N : Culinary Internship**

An approved uniform and knife set are required at the start of the program.

This hands-on culinary internship is a supervised work experience at hotels, restaurants, country clubs, and catering operations. A weekly journal, written assignments, and meeting with a supervisor are required components of the internship experience. The internship requires students to complete 160 hours of the internship by the end of the semester in which the internship is offered. A cumulative grade point average of 3.0 in Culinary Arts classes as well as a 2.0 in General Education electives are required.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

Completion of all catalog-listed courses for the first three semesters in the Culinary Arts Program and approval of the Program Coordinator.

## Data Science

**DATA101N : Introduction to Data Analytics**

In this course students receive an introduction to the tools and processes used by data analysts. This course gives an overview of the data life cycle including collecting, storing, formatting and preparing data. This course also provides an introduction to the ideas behind analyzing data in order to make data informed decisions. Additionally, this course will introduce how to communicate results through visualizations. A basic understanding of spreadsheets is recommended.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**DATA105N : Data Mining**

Students will learn how to consolidate data from multiple sources, mine relevant information from source data, and display and summarize information effectively. An important component of this course is the completion of an applied project utilizing a current business intelligent tool software such as Microsoft PowerBI.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite Courses**

DATA101N

**DATA120N : Applied Data Analysis**

In this course students will apply basic statistical and data mining techniques to work with large scale datasets. Examples of large scale data analysis in practice will be reviewed. Students learn to use statistical programming tools such as RStudio and SAS. Topics covered include descriptive statistics, statistical modelling, statistical inference and dimensionality reduction techniques on multivariate datasets. Students will complete and present an applied analytical project using statistical programming tools.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

DATA101N, MATH106N.

**DATA205N : Data Visualization**

In this course students will learn to apply design principles and techniques of effectively visualizing data. Students will develop an understanding of how visual representations are used in the analysis of complex real world data. Class projects will require students to practice creating and presenting interactive visualizations. A current data visualization tool such as Tableau will be utilized.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**DATA220N : Introduction to Machine Learning**

This course will provide a basic summary of skills that include: Machine learning concepts, techniques and procedures. Both supervised and unsupervised machine learning will be discussed. Students will develop an understanding of how machine learning is an integral part of data analytics. They will explore how machine learning helps to develop data-driven decisions and gives computers the ability to learn without being explicitly programmed. Previous programming experience is highly recommended.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisite Courses**

DATA120N

## Early Childhood Education

**ECE101N : Foundations of Early Childhood Education**

This course provides an introduction to and analysis of the early childhood profession in relationship to society, community, the family, the child and self. The historical context, teaching and learning theories, types of programs best practices, ethical guidelines, current issues and trends, laws and regulations are covered. The impact of the multiple and diverse influences of family, culture and society on the child and the early childhood professional will be explored. This course requires six hours of observation field work.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**ECE102N : Growth and Development of the Young Child**

This course examines the growth and development of the young child from birth through age eight. The characteristics, patterns and theories of development in the areas of physical/ motor, emotional, social, language, and cognitive development are covered. The complex and diverse influences of culture, environment and individual needs are considered as the young child is studied in relationship to family, school and community. The role of the early childhood professional in relationship to the development of the young child is considered. This course requires six hours of field observation.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**ECE103N : Safe, Healthy & Nutritional Programs for Early Childhood Education**

This course provides an in-depth study of the planning for and evaluation of safe, healthy, nutritional early childhood environments. Settings and curriculum that are developmentally, individually and culturally sensitive in the areas of health, nutrition and safety will be explored. The course reviews the relevant policies, regulations and quality guidelines that support healthy, safe environments for the young child, birth through age eight. Topics include: Planning, creating and evaluating play in learning environments and curriculum; the "whole child", family needs, related community resources, issues, trends, and advocacy needs. This course requires a minimum of four hours of observation and six hours of participatory advocacy work in support of the young child's health, safety, and nutritional needs.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**ECE104N : Curriculum for Early Childhood Care & Education**

An exploration of current theories of teaching and learning techniques used in early childhood education for children ages three through eight years. Special emphasis is placed on the impact of the constructivist, play, and process approaches on the environment, curriculum planning, instructional techniques, behavior guidance and teacher interactions. Attention is paid to the role of the teacher in the development and assessment of activities, materials, and environments that support the developmental as well as the cultural and special learning needs of the individual child and their families. This course requires a minimum of 8 hours of field work in an approved early childhood setting.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

ECE101N

ECE102N

**ECE105N : Children with Special Needs & Their Families**

This course will examine the child with a special need, birth through age eight, within the family context and in an inclusive early childhood setting. The characteristics of typical and atypical development and the most common exceptionalities will be covered. Emphasis will be on identification, observation, screening, assessment, family-centered early supports and services, natural and inclusive environments, individualized plans, the IEP and IFSP, community resources, current issues and trends. The role and impact of family and cultural, linguistic diversity on the child with a special need will be emphasized. This course requires six hours of field work.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisite Courses**

ECE101N

ECE102N

**ECE190N : Practicum I**

This course will provide students with an experiential learning opportunity during which the student will be actively involved in all aspects of the children's learning. Emphasis will be placed on the student learner's interactions with the children, parents, and professionals that will be encountered in the experience as well as various theories in child development, curriculum, observation and environment planning. The student will apply and integrate the skills, theories, and knowledge base acquired in the pre-requisite course work. The student will participate in an approved, field based, licensed early childhood setting for 125 hours under the supervision of an experienced and degreed early childhood teacher. The course addresses all five of the NAEYC Standards for Early Childhood Professional Preparation.

**Class Hours 1**

**Lab Hours 8**

**Credits 3**

**Prerequisite Courses**

ECE101N

ECE102N

ECE104N

**ECE200N : Developmental^ Appropriate Programs for Infants & Toddlers**

This course is a study of current research, theories, and models of teaching and learning techniques used in the care and early childhood education of children birth to three years of age. The role, responsibilities of and relationships between families and early childhood caregivers and educators will be emphasized. Topics will include the developmental stages of infants and toddlers, the components of quality programs, supportive environments and curriculum with sensitivity to attachment and separation, trust, communication and nurturing. Attention is paid to the role of the caregiver/ teacher in the development and assessment of activities, materials, environments and routines that support the child and families individual and special needs. This course requires six hours of field work in an approved early childhood setting.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

ECE101N, ECE102N.

**ECE203N : Emerging Literacy in Early Childhood Education**

This course provides an in-depth study of the literacy and language development of the young child. The component of a literacy and language-rich environment that is culturally and individually sensitive will be explored. Topics covered will include literacy and language arts; developmental characteristics and needs according to the child's stage; special needs of the individual child and the ESOL developing child; pre-reading and reading skills; methods and techniques of lesson presentations; diverse language and literacy materials and activities; partnerships with families and communities to support literacy development, and trends in literacy. This course contains a service learning experience option and requires a minimum of six hours of fieldwork.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

ECE101N, ECE102N, ECE104N.

**ECE204N : Behavior Guidance & Classroom Management in Early Childhood Education**

This course provides a study of theories and strategies related to the positive, supportive, developmentally appropriate guidance of the young child in the group environment. Emphasis is placed on creating environments that are flexible and respectful, and are socially and culturally sensitive for all children and their families. Strategies for building an encouraging classroom in order to minimize disruptive behavior and support the development of the young child will be explored. Workable strategies for conflict management, quick intervention and crisis management techniques will be examined. This course requires a minimum of eight hours of field observation.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ECE101N, ECE102N, ECE104N.

**ECE215N : Creativity and the Young Child**

This course provides a study of the creative nature of the young child as it relates to the creative arts, math and science. Emphasis will be on an experiential application of developmentally appropriate, constructivist, play and process curriculum methods in early childhood curriculum for children ages three through eight years. The impact of the creative, exploratory approach on behavior guidance and classroom management will be included. This experiential course will provide the student with the opportunity to plan, create and implement activities, as well as to develop teaching strategies, technique and skills. This course requires a minimum of eight hours of fieldwork in an approved early childhood setting.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ECE101N, ECE102N, ECE104N.

**ECE230N : The Early Childhood Profession & Professional Portfolio**

This course reviews the teaching and ethical standards of the early childhood profession. The assembling and presentation of a professional portfolio for assessment and the processes of selecting best work samples that present evidence of competency in program outcomes will be covered. Topics include; the role of the teacher in connection to the child, family and community, professional standards and code of ethics, selection of and reflection on artifacts and evidence of learning and demonstration of the self as an early childhood professional

**Class Hours** 2

**Lab Hours** 0

**Credits** 2

**Corequisites**

This course must be taken in conjunction with ECE290N for the Degree student. A final presentation of the completed portfolio is required.

**ECE290N : Early Childhood Education: Capstone Course**

This capstone course is an opportunity to apply and integrate the skills, theories and knowledge base the student has acquired in the course work in the Early Childhood Associate Degree. The student will participate in an approved, field-based, licensed early childhood setting under the supervision of an experienced and degreed level early childhood teacher. This practicum experience includes observation, development and implementation of developmentally appropriate learning experiences and environments, classroom management, and working with parents and a teaching team. The student will complete a minimum of 130 hours on-site and attend a weekly, 1 hour seminar. Students will culminate this experience with the development and presentation of a professional portfolio and a major project. This capstone experience addresses all five of the NAEYC Standards for Early Childhood Professional Preparation.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisite or Corequisite**

[ECE203N](#)

**Prerequisites**

A grade of 'C' or better in ECE190N



## Economics

### **ECON201N : Microeconomics**

This course analyzes the economic behavior of the individual components (e.g., consumers, households, businesses, industries, government) that comprise a national economy. Topics will include supply, demand, and elasticity; consumer choice; cost and productivity in the firm; various forms of competition; government involvement including antitrust laws, regulation, and deregulation; and resource markets. The use of mathematics and graphing skills will illustrate various economic principles and relationships.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

#### **Prerequisites**

Placement into a college-level math.

### **ECON202N : Macroeconomics**

Fulfills General Education Quantitative Literacy requirement for Associate in Arts Degree in History & Political Science

This course provides an analysis of the basic characteristics of a modern market-directed economy influenced by global development. Topics discussed include supply and demand; gross domestic product; consumer price and confidence indexes; the business cycle; inflation and unemployment; fiscal, supply-side and monetary policy; and the Federal Reserve System. The use of mathematics and graphing skills will illustrate various economic principles and relationships.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

#### **Prerequisites**

Placement into a college-level math.

## Education

### **EDU130N : Foundations of Education**

This course examines the philosophical, historical, legal and social/cultural aspects of education in the United States. Students will have an opportunity to investigate teaching as a profession, the laws governing professional practice, the requirements for educator certification, and the definition and standards of effective teaching practices (NH Task Force, NH Standards, InTASC). As part of their portfolio, students will formulate a beginning philosophy of education. Students will develop skills to "use an understanding of individual differences and diverse communities to ensure each child achieves to the highest level possible. Each student will write a paper based on current research in an area of his/her interest and teach the rest of their class what they have learned through this work. Twenty hours of observation and participation in a school setting outside of class time are required and count as 20 percent of the course grade.

**Credits** 3

#### **Notes**

This course fulfills a General Education Core Requirement: Behavioral Social Science

### **EDU132N : Introduction to Exceptionalities**

This course examines the psychological, physiological, social and educational characteristics of children who demonstrate an exceptionality and who are in need of special education services. An overview of the most common exceptionalities, standard interventions, and social and educational trends connected to these exceptionalities is included. Students will explore the historical foundations of special education, as well as current trends, federal laws that regulate special education, and the basic values and philosophies that underlie the supports provided for the student. Investigation into research-based strategies and supports will demonstrate ways to help students succeed in the classroom. The process for referring a student for services will be addressed, and then students will develop a mock IEP, gaining an understanding of the purpose of the Team, including the importance of working with families and available resources. Students must complete 10 hours of field experience outside of class time.

**Credits** 3

# Electronics

## **ELET115N : Introduction to Programming Using C++**

This course introduces the fundamentals of programming and logical problem solving using object-oriented methods and C++ language. The primary objective will be to develop problem solving skills applicable in the area of computers. Students will learn I/O operations, algebraic manipulations, simple control structures and string manipulations. Use of professional programming design approaches and coding style will be used in laboratory assignments.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**Prerequisites**

Placement into college-level math.

## **ELET121N : Digital Circuits I**

This course is a presentation of fundamental concepts in digital theory needed for more advanced study of digital circuits. The subject areas are number systems, digital codes. Boolean algebra, Karnaugh mapping techniques, basic logic gates, and flip-flops.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

**Prerequisite or Corequisite**

MATF110N

## **ELET131N : Circuit Analysis I**

This includes theory and laboratory work on DC current, voltage, resistance. Ohm's law, energy, power, series-parallel circuits, network theorems and networks.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisite or Corequisite**

MATH 110N.

## **ELET132N : Circuit Analysis II**

Theory and laboratory work on AC current, voltage, impedance, power, series-parallel circuits, network theorems and networks. Theory and laboratory work on magnetism and magnetic circuits, resonant circuits, transformers, and filters.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

ELET131N and MATH110N

**Corequisites**

MATH 120N (or permission of the Program Coordinator).

## **ELET141N : Electronics I**

This is a study of the physical behavior of electronic devices. Emphasis is on analysis and application of electronic circuits utilizing semiconductor diodes, bipolar transistors, and field effect transistors. Topics covered include rectification, clipping and clamping circuits, regulated power supplies, basic circuits, biasing of transistors, and simplified AC modeling of transistor circuits. Simulation tools are used to reinforce the theory. Laboratory experimentation reinforces classroom theory with practical work.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

ELET131N and MATH110N

**Corequisites**

MATH120N (or permission of the Program Coordinator).

## **ELET221N : Advanced Digital Circuits**

Advanced topics in digital electronics are covered in the course. These topics include the internal structure of logic families, complex digital circuits, Flip-Flop operations, applications, counter designs using state machine, state diagrams, K-Maps, shift registers and memory devices. A/D and D/A conversion, timing diagrams, computer bus systems, and complex circuit debugging are also included. The topic of digital interfacing is also covered. This includes interfacing various logic families to each other as well as interfacing logic to various I/O loads, such as inductive loads and 120V AC loads. Theory and laboratory work on advanced concepts in digital circuit design will be covered.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

MATH120N, ELET121N.

## **ELET241N : Electronics II**

This course is a continuation of Electronics I covering more advanced electronics topics with a variety of applications. Emphasis is on analysis and application of operational amplifiers. The nonideal characteristics of op-amps and other electronic devices will be discussed with applications emphasizing offset, gain and linearity. Other topics may include but are not limited to; differential amplifiers, frequency response, A/D and D/A circuits, active filters, troubleshooting of lab test circuits and analysis using computer electronic analysis simulation.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

ELET141N, ELET132N, MATH120N or permission of the EET Program Coordinator.

**ELET245N : Communication Theory**

Study of principles of radio frequency communication, modulation systems, pulse, digital modulation circuits, transmission line and propagation. This course is offered in the evening only.

**Class Hours** 2

**Lab Hours** 2

**Credits** 3

**Prerequisites**

A grade of 'C-' or better in ELET241N.

**ELET250N : Microcontrollers**

Today's computers fall into two categories. The first uses high performance microprocessors such as the Intel Pentium Class of Processors. The second category focuses on issues of space, cost, low power and fast development in products such as wireless phones, automobiles, security systems, and appliances. These lower performance processors are called Microcontrollers and are merely a lower power version of the larger microprocessors. The principles of operation are the same. This course focuses on this second category and the Hardware and Software design of these Microcontrollers.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

ELET121N and ELET115N (or CSCI175N)

**ELET274N : EET Capstone Project**

An independent lab project using the student's knowledge of digital/analog electronic circuits and microprocessors. Students will design and build a working model of their selected project. The project will be built, troubleshoot and demonstrated by the end of the semester. This course is offered in the evening only.

**Class Hours** 1

**Lab Hours** 3

**Credits** 2

**Prerequisites**

ELET132N, ELET250N.

## English

**ENGL101N : College Composition**

In this course, students learn to write clearly and effectively for defined audiences through a variety of strategies. Emphasis is on the writing process from pre-writing through drafting, revising and editing. Students gain confidence through learning the basic principles of effective expository and persuasive composition and the application of these principles in writing essays and documented research papers. Students become aware of the variety of strategies, behaviors, habits and attitudes and choose those that help them improve. Students will also read and examine a wide variety of writers and writing styles. This class is a core requirement for all degree programs at NCC. Students who do not satisfactorily place into [ENGL101N](#) with the required Accuplacer or SAT scores will be required to enroll in the corresponding Co-Requisite Workshop.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**ENGL102N : College Composition II: Writing About Literature**

Building upon skills learned in College Composition ([ENGL101N](#)), this writing and literacy course further explores the dimensions of writing based on selected readings that explore relevant themes and issues in today's world. Emphasis is placed on expository and persuasive writing within a research context.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

[ENGL101N](#) or [ENGL110N](#)

**Notes**

This course fulfills a General Education Core Requirement: English/Communications.

**ENGL103N : Professional Writing & Presentations**

The course is designed to prepare the student to practice effective communications in business and industry. The course emphasizes formatting, design, style, and organization. Students receive practice and advice in written communications such as letters, emails, proposals, and reports, and in public speaking such as oral presentations, group conferences, and interviewing, according to professional standards. Visual presentation software such as PowerPoint will also be used. For students taking the online version of ENGL103N, you must have a webcam and microphone or phone camera with internet connection for the required oral presentation portion of the course.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N

**Notes**

This course fulfills a General Education Core Requirement: English/ Communications.

**ENGL105N : Introduction to Literature**

This course studies societal issues and events in the twentieth and twenty-first centuries, which are portrayed through a selection of modern literature. Works vary accordingly at the discretion of the instructor and may include fiction and nonfiction pieces. Through essays and class discussion, students will analyze multiple types of literature, such as short stories, poetry, plays, and novels.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: English/Communications.

**ENGL109N : Public Speaking**

Public Speaking is designed to prepare students to assume active participation in those phases of industrial and social life requiring effective oral communication. Through practical exercises, students will learn the skills associated with professional speaking. Emphasis will be placed on planning and organization, as well as the importance of the audience. Since writing is often the basis for many public speaking activities, some written assignments are also required. In addition, students will use visual software, such as PowerPoint, in some presentations. Students taking an online version of ENGL109N must have a webcam and microphone or phone camera with internet connection for the required presentations in this course (Formerly Oral Communication).

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N

**Notes**

This course fulfills a General Education Core Requirement: English/Communications.

**ENGL110N : Honors Expository Writing**

This course is intended for the student who has already demonstrated a high degree of proficiency in the use of language and who is motivated to pursue an advanced level of writing. Each student will be encouraged to develop his or her own distinctive voice and style, to make sharp and effective word choices, to become his or her own best critic, and to ultimately experience the satisfaction that comes from producing relevant, effective, and polished pieces of writing. The course will be organized around a specific socio-cultural issue or theme and will incorporate readings about that theme from a variety of disciplines. The objective of the course is to enhance the depth and quality of students' written expression through sustained engagement in the semester theme. The student will practice writing about that theme for various purposes and audiences with systematic feedback from peers and the instructor. The course employs a workshop approach that incorporates critical reading, discussion, and a series of intense writing activities including analysis of rhetorical strategies used by other writers, and reading and responding to the work of others. Working in small groups, students will develop original ideas about the semester theme through active discussion and critique.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisites**

Permission of the Honors Program Coordinator or Admission into the Honors Program. This course satisfies the ENGL101N, College Composition, requirement toward the associate degree.

**ENGL122N : Technical Writing**

This course gives students a foundation for communicating effectively in the context of industry and the professional world. Applying principles used in business and industry, students will analyze technical documents and write a variety of technical assignments including instructions, feasibility reports, and proposals.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: English/ Communications.

**ENGL206N : Writing Short Stories**

This course puts emphasis on discussion of student short stories by peers. It depends on growth through exposure to other types of writing as well as through in-depth discussion of the strengths, weaknesses and potential of each piece.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**ENGL215N : Literature by American Women**

Using novels and the short story fiction genre, students will learn about the evolution of American female writers from the 19th through the 21st centuries by studying their literature and examining it against the backdrop of the historical periods in which they wrote. Students may explore such themes as women and marriage, women and madness, women and sexuality/ gender/race/ ethnicity, motherhood, women and body, women and aging, women and work, or other themes pertinent to the female experience. Students will enrich their understanding of literature and the roles and experiences of women in shaping such literature. The course will explore the works of American female writers such as Kate Chopin, Charlotte Perkins Gilman, Maya Angelou, Sandra Cisneros, Joyce Carol Oates, Elizabeth Bishop, Louisa May Alcott, Willa Cather, Sylvia Plath, Alice Walker, Ann Patchett, and/or others at the professor's discretion each semester. This is a reading and writing intensive course as it examines women's roles from multiple perspectives.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Recommended Prerequisites**

[ENGL102N](#)

**Prerequisites**

ENGL101N or ENGL110N

**ENGL230N : British Literature Middle Ages to 1800**

This course will survey selections of various genres and forms of British literature from the Middle Ages to 1800. Each of the readings will be examined within the context of the character and history of British literature. Works and major British writers such as Beowulf, Geoffrey Chaucer, Christopher Marlowe, William Shakespeare, John Donne, Ben Jonson, John Milton, Jonathan Swift, Alexander Pope and others may be selected for study.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: English/Communications.

**ENGL231N : British Literature 1800 to Present**

This course will survey selections of various genres and forms of British literature from 1800 to the present. Each of the readings will be examined within the context of the character and history of British literature. Works of major British writers such as William Blake, William Wordsworth, Mary Wollstonecraft, Samuel Taylor Coleridge, John Keats, Mary Shelley, Oscar Wilde, Charles Dickens, T.S. Eliot, Virginia Woolf, James Joyce, George Orwell, Ted Hughes, Seamus Heaney, Samuel Beckett and others may be selected for study.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: English/ Communications.

**ENGL235N : Poetry Workshop**

Building on writing principles and critiquing abilities learned in College Composition, students will begin to investigate the differences between prose and poetry. Through exercises and revision, and especially by reading and discussing some contemporary poems, students will learn to recognize and employ some of the basic tools of free verse. Working together on their own and one another's poems with the emphasis on sharing work and offering constructive criticism, students will learn what does, and what does not, work in their own poems.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**ENGL240N : American Literature Early Colonialism to Civil War**

This course samples American literature from the colonial period to the late nineteenth century. Each of the readings will be examined within the context of the character and history of US literature. Students will analyze the evolution of literature as a contributing factor to the development of a nation. Works of major American writers such as William Bradford, Anne Bradstreet, Cotton Mather, Benjamin Franklin, Thomas Paine, Thomas Jefferson, Phillis Wheatley, James Fenimore Cooper, Edgar Allan Poe, Herman Melville, Henry David Thoreau, or Louisa May Alcott may be selected for study.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: English/Communications.

**ENGL241N : American Literature Civil War to Present**

This course samples American literature from the late nineteenth century to contemporary time. Each of the readings will be examined within the context of the character and history of United States literature. Students will analyze the evolution of literature as a contributing factor to the development of a nation. Works of major American writers such as Walt Whitman, Emily Dickinson, Sarah Orne Jewett, Mark Twain, Edith Wharton, Robert Frost, Willa Cather, F. Scott Fitzgerald, Langston Hughes, Allen Ginsburg, Sylvia Plath, Amy Tan, Toni Morrison, Maya Angelou and others may be selected for study.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: English/Communications.

**ENGL250N : Honors Advanced Creative Writing**

This course is designed to provide students who are serious about their writing an opportunity to focus on a particular genre (fiction, poetry, or creative non-fiction) beyond what is covered in [ENGL206N](#) or [ENGL235N](#). Students come to this course with a firm grasp of all the elements of writing fiction, poetry, and/or non-fiction. Using a workshop format, the course also provides the student with an opportunity to compile a portfolio of significantly revised completed works. In addition to extensive reading within the chosen genre, workshops require participation in class discussions, student presentations and analyses of other students' work.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

A grade of 'B' or higher in ENGL110N or ENGL101N.

**ENGL255N : Honors Humor in Literature & Other Media**

Students will examine and enjoy a variety of forms of humor and comedy from early Greece to Elizabethan England to present day England and America while developing and strengthening their writing skills in critical analysis and evaluation. The readings and visual presentations will cover a broad spectrum of humor, including romantic comedy, comedy of manners, absurdist comedy, situation comedy, wit, satire, parody, irony, stereotyping, and farce. Through discussions and writing, students will examine the various techniques through which humor criticizes human nature, analyzes society, and expresses differing political and world views. Students will learn to write effective literary analyses and evaluative reviews. The authors and performers of humor and comedy under study may include Aristophanes, Shakespeare, Moliere, Wilde, Twain, Will Rogers, Winston Churchill, Thurber, Flannery O'Connor, Neil Simon, Edward Albee, Dick Gregory, Jon Stewart, and Tina Fey.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

A grade of 'B-' or higher in ENGL110N or ENGL101N and permission of the Honors Program Coordinator.

**Notes**

This course fulfills a General Education Core Requirement: English/ Communications.

### **ENGL285N : Topics in English Studies Seminar**

This course provides students with an opportunity to learn about an area not covered by existing courses in the English curriculum and in particular prepares students for an advanced study of English at the bachelor degree level. The course is a program requirement English students in order to earn an Associate in Arts Degree in English. As a summative assessment, students will apply knowledge and skills learned through previous coursework by producing a project that integrates writing through strategies of research, interpretation, and/or audio-visual skills. Students select a topic of interest through the guidance of their instructor; topics include literature, professional or creative writing, or English education.

**Credits 3**

#### **Prerequisites**

For English majors: Completion of 45 credits of coursework applicable to Associate in Arts Degree English degree. Minimum grade of 'C' in ENGL101N or ENGL110N, and ENGL102N.

## English to Speakers of Other Languages

### **ESOL074N : Grammar for Writing IV**

This is a low-intermediate/intermediate course designed to give students instruction in grammar to improve written English. The course will focus on a variety of grammar structures, especially related to grammar problems that are most common in writing. This course will cover areas of difficulty in grammar such as: parts of speech; verbs, nouns, and articles; subject-verb agreement, modals; prepositions; adjectives; sentence patterns; sentence types; and common grammar errors. Credits do not count toward degree requirements.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

#### **Prerequisites**

Recommendation of the Department Chair.

### **ESOL075N : Grammar for Writing V**

This is an intermediate course designed to give students instruction in grammar to improve written English. The course will focus on helping students to notice the gap between their current language skills and correct English. A variety of grammar structures, especially related to grammar problems that are most common in writing, will be discussed. This course will cover areas of difficulty in grammar such as: nouns; articles; pronouns and possessive adjectives; verb tense review; problems with verbs; subject-verb agreement, prepositions; word forms; adjectives; modals; gerunds and infinitives. Credits do not count toward degree requirements.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

#### **Prerequisites**

Successful completion of ESOL074N or recommendation of the Department Chair.

### **ESOL076N : Grammar for Writing VI**

This is an intermediate/advanced course designed to give students instruction in grammar to improve written English. The course will focus on a variety of grammar structures, especially related to grammar problems that are most common in writing. This course will cover areas of difficulty in grammar such as: verb tenses; passive voice; conditionals; word order and word combinations; adjective, adverb, and noun clauses; fragments, run-ons, and comma splices; parallel structure; and confusing words and structures. Credits do not count toward degree requirements.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

#### **Prerequisites**

ESOL075N or recommendation of the Department Chair.

### **ESOL083N : Listening, Speaking and Pronunciation**

This course is for non-native speakers of English. The main focus is developing oral and aural communication skills. Goals for students include improving communication skills for school, work and daily life. Class activities will include oral journals, oral presentations, listening activities, and field studies. Credits do not count toward degree requirements.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**ESOL085N : Listening, Speaking and Pronunciation II**

This course is for non-native speakers of English. The main focus is continued development of oral and aural communication skills. Goals for students include improving communication skills for school, work, and daily life. Class activities will include oral journals, oral presentations, listening activities, and technology integration. Credit do not count toward degree requirements.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ESOL083N or permission of the Department Chair/Program Coordinator.

**ESOL086N : Academic Writing for English Language Learners II**

This course provides intensive preparation for the ESL student who will be attending college classes for the first time or the student who is already in college. Students will learn to adapt to the United States social and educational systems. Emphasis is placed upon independent and critical thinking skills and problem solving. Grammar and mechanics are addressed in context. Activities will include writing, authentic readings, and peer-editing. Credits do not count toward degree requirements.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

Recommendation of the Department Chair.

**ESOL088N : Academic Writing for English Language Learners III**

This is an intermediate course designed to give students ample practice in writing paragraphs and developing essays. The course will be focused on a variety of writing tasks building on prior knowledge of paragraph structures. Writing will include continued development of paragraphs and an introduction to essays. Students will benefit from reading, vocabulary and grammar exercises that support improved writing and language skills. Credits do not count toward degree requirements.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ESOL086N or recommendation of the Department Chair/Program Coordinator.

**ESOL096N : Academic Writing for English Language Learners IV**

This course is for non-native speakers of English. The course emphasizes essay development, grammar and usage, pronunciation, sentence structure, and supporting paragraph development. Reading selections will strengthen comprehension skills and academic vocabulary. The course includes a special emphasis on problematic written and oral skills for the ESL student. Online and workbook activities will be incorporated as part of the curriculum. Credits do not count toward degree requirements.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ESOL088N or recommendation of the Department Chair.

## Environmental Science

**ENVS101N : Environmental Science**

The course introduces students to the study of major environmental problems and issues facing society today. Topics include ecosystem structure and function; population trends and dynamics; pollution of air, land, and water; and the management of resources. This course contains a service learning option.

**Credits** 4

**Notes**

This course fulfills a General Education Core Requirement: Science.

**ENVS105N : Earth Science**

Explores the basics of Earth Science including introductions to geology, meteorology and astronomy. The geology section includes the many Earth processes that change the face of the planet such as plate tectonics and erosion. Students will study meteorology and astronomy as it pertains to Earth Science.

**Credits** 4

**Notes**

This course fulfills a General Education Core Requirement: Science.



# French

## **FREN101N : French I**

An introductory course for first year language study that takes a communicative, functional approach to teaching and learning French at the college level. The course includes grammar and conversation. At the end of the course, the student will be able to speak and write basic French.

**Credits 3**

### **Notes**

This course fulfills a General Education Core Requirement: Global Awareness.

## **FREN102N : French II**

French II initially reviews, then builds on the simple sentence structures and vocabulary learned in French I. The goal of this course is to teach students to understand and converse in day-to-day French and know basic aspects of French culture(s). Students are also taught reading skills for comprehending authentic materials and basic literature, and they are taught to write letters and short essays. Course activities accommodate all learning styles and are both innovative and relevant to student experiences. Video materials bring French to life for students by illustrating in context the grammar and vocabulary students are learning.

**Credits 3**

### **Prerequisite Courses**

FREN101N

# Geography

## **GEOG110N : World Regional Geography**

This survey course provides students with an understanding of contemporary issues through a spatial, specifically regional, context. World Cultures including political, economic, historical, and societal issues are emphasized and connected to their physical environment. Geographical models and principles are also examined.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

### **Notes**

This course fulfills a General Education Core Requirement: Global Awareness.

## **GEOG130N : Human Geography**

This course examines important global themes and controversial issues in the context of human/environment interactions. Using geographical tools and skills, the course explores the world around us in relation to people, cultures, places, and space. It seeks to facilitate critical thinking on complex problems such as uneven development, inequality, regional differences, and environmental degradation, so students can understand the causes of these problems and suggest possible remedies.

**Credits 3**

### **Notes**

This course fulfills a General Education Core Requirement: Global Awareness.

# History

## **HIST101N : Western Civilization From Ancient Times to 1700**

This course will trace the development of western culture from ancient times through the early modern era. A wide variety of topics will be explored including the origins of early civilizations, the contributions of Greece and Rome, the emergence of medieval Europe, the Renaissance, the Reformation, exploration and colonization, and the rise of modern nation states. Special emphasis will be placed on identifying the ideas, people, and events that have helped to shape the modern world. In addition, this course will introduce students to a variety of essential skills such as discerning frame of reference in primary and secondary sources, hypothesis formation using the historical method of inquiry, writing persuasive essays, and documenting sources

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

### **Notes**

This course fulfills a General Education Core Requirement: History/Political Science.

**HIST102N : Western Civilization From 1600 to the Present**

This course provides an overview of European history from early modern times to the present. A wide variety of topics will be explored including the Scientific Revolution, the Enlightenment, the French Revolution and Napoleon, industrialization, the impact of ideas such as nationalism and socialism, imperialism, the Russian Revolution, the World Wars, the Cold War, and recent trends. Special emphasis will be placed on identifying the ideas, people, and events that have helped to shape the modern world. In addition, this course will introduce students to a variety of essential skills such as discerning frame of reference in primary and secondary sources, hypothesis formation using the historical method of inquiry, writing persuasive essays, and documenting sources. This course fulfills a General Education Core Requirement History/Political Science

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**HIST110N : Ancient Civilizations of the World**

This survey course provides an introduction to the ancient civilizations of the Near East, Egypt and Africa, China and East Asia, India and Mesoamerica. The influence of Greece and Rome will also be considered. Discussion will focus on comparing and contrasting the characteristics of these civilizations as well as identifying their political, technological, economic, ideological, and cultural achievements. In addition, this course will introduce students to a variety of essential skills such as discerning frame of reference in primary and secondary sources, hypothesis formation using the historical method of inquiry, writing persuasive essays, and documenting sources.

**Credits 3**

**Notes**

This course fulfills a General Education Core Requirement: History/Political Science.

**HIST140N : U.S. History from the Colonial Era to Reconstruction**

This course will provide an overview of the political, social, economic, and cultural development of the United States from the Pre-Columbian Era through 1877. While a wide range of topics will be explored, emphasis will be placed on examining the European and colonial roots of American democracy; the Revolutionary War period; the Constitutional Convention and the evolution of the new republic; nationalism versus the growth of sectionalism; the Civil War and Reconstruction. In addition, this course will introduce students to a variety of essential skills such as discerning frame of reference in primary and secondary sources, hypothesis formation using the historical method of inquiry, writing persuasive essays, and documenting sources.

**Credits 3**

**Notes**

This course fulfills a General Education Core Requirement: History/Political Science.

**HIST141N : U.S. History Since Reconstruction**

This course will provide an overview of the political, social, economic, and cultural development of the United States from 1865 to the present. A wide range of topics will be explored including Reconstruction, Industrialization, the emergence of the United States as a world power, the Progressive Movement, the First World War, the Depression, World War II, the Cold War Era, the expansion of civil rights, and recent trends. In addition, this course will introduce students to a variety of essential skills such as discerning frame of reference in primary and secondary sources, hypothesis formation using the historical method of inquiry, writing persuasive essays, and documenting sources.

**Credits 3**

**Notes**

This course fulfills a General Education Core Requirement History/Political Science

**HIST215N : New Hampshire History**

This course examines New Hampshire history from the prehistoric era through the present day. Through an analysis of primary and secondary sources, each student will learn about local people and events and consider the extent to which New Hampshire history reflects larger, national developments. Students enrolled in this course will be expected to apply their knowledge by completing a research project utilizing primary sources or participating in a service learning project at a local historical society, non-profit agency, or other approved site.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**HIST232N : History of Modern Asia**

This course examines the political, economic, and social development of Asia from the 19th century to the present. Special emphasis will be placed on China, Japan, Korea, and India - Asian nations that play an increasingly important role in today's global economy. Discussion topics will include Western imperialism and its legacy, strategies of modernization, the rise of nationalism, communism in Asia, World War II, the Cold War, the emergence of Asian countries into the global economy, the modernization and exportation of Asian cultures, and 21st century trends.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**HIST241N : American Constitutional History**

A study of the evolution of American constitutional law includes the drafting and ratifying of the Constitution and the doctrine of judicial review and chronicles the development of major constitutional principles.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**HIST246N : Modern America**

This course will cover important political, technological, economic, and social developments since World War II. Discussion will focus on exploring three themes/topics: the impact of rapid technological innovation on society; the paradox of American democracy and popular demands for change; and the role of the United States government at home and in an increasingly interconnected world. By the end of the course, students should understand that knowledge of the post-World War II period provides them with a valuable historical perspective for critically assessing current events.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**HIST260N : History of Multiculturalism**

A wide variety of cultural groups will be examined, probing the historical circumstances that motivated them to come to this country. How and why they have been able or unable to maintain an ethnic identification over the generations will be explored. Students will begin to develop an appreciation of the influence of one's cultural heritage and will gain a greater understanding of the cultural value, beliefs, and behaviors of members from different cultures.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**HIST262N : Honors Movies and Social History of USA**

This course will explore the effectiveness of movies as a source for understanding social history. Topics include modernization, the struggle to escape poverty, prejudice, family life in the suburbs, gender roles, and the rise of youth culture. We will study the accuracy of how our movies portray various social groups, from high society to the suburban middle class to gangsters, as well as what they reveal about changing attitudes, norms and problems faced by various segments of our society, from the gilded age and the roaring twenties to the end of the 20th century. Analytic writing, independent research and joining Netflix for the term will be required.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

Admission into the Honors Program or Permission of the Coordinator of the Honors Program; ENGL110N or ENGL101N with a grade of 'B-' or higher

**Notes**

This course fulfills a General Education Core Requirement: History/ Political Science.

**HIST265N : Latin American History From Independence to the Present**

This course explores the history of Latin America and the Caribbean from 1800 to the present day. Discussion topics will include the 19th century nation-building, caudillismo, 20th century revolutions, modernization, cultural developments, Latin American relations with Europe and the United States, and recent trends. While the experiences of individual countries will be considered, the course will focus on larger political, economic, and social themes that shaped the entire region.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**HIST280N : Special Topics in History**

This course provides students with an opportunity to learn about an area not covered by existing courses in the history curriculum. While the topics may vary from semester to semester depending on faculty and student interest, this course emphasizes a core set of essential skills common to all history courses at Nashua Community College. A course description will be made available prior to the start of registration.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

### **HIST285N : Introduction to Historical Research Methods**

This course is designed for students with an interest in history who wish to strengthen their research skills. In this course, students "become" historians as they learn about the process used to study the past. Subjects addressed include understanding the nature of history and historical thinking, historiography, locating and critically assessing primary and secondary sources, applying the method of historical inquiry, citing sources effectively, and writing history. The approach to learning is "hands-on" as students investigate a topic of their own choosing. As a summative assessment, students share their original findings in a research paper and in a presentation to other students, faculty, and staff.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

#### **Prerequisites**

ENGL101N or ENGL110N and one history course with a grade of 'C' or better.

## **Honda Automotive**

### **HATN106N : Honda Internal Combustion Engine**

This course examines two- and four-stroke engines, their operating systems, and related physical properties. Principles from basic carburation to variable cam timing, forced induction and performance parts are covered. The lab element of this course exposes the students to the construction methods, precision measurements, and tolerances related to engine design. It also covers basic diagnostics of a four-stroke engine.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

### **HATN113N : Honda Electricity and Wiring**

This course is designed to introduce students to how electricity works and is utilized in today's automobiles. Topics for this course will include theory. Ohm's law, watt's law, voltage, current and resistance, tool identification/usage, proper multimeter usage and starting and charging systems. There will also be discussion about how to properly diagnose electrical issues and how to read wiring schematics provided by Honda. This course is designed to meet requirements for ASE Education Foundation certification as well as Electrical Fundamentals section of the Honda Curriculum.

**Class Hours** 2

**Lab Hours** 3

**Credits** 3

### **HATN114N : Honda Steering & Suspension**

A student must earn a 'C' or better in order to progress in this program.

Honda automotive suspension, steering systems and wheel alignment procedures will be studied. This course will include the development of knowledge towards understanding the forces that affect vehicle control, suspension system design, wheel alignment angles and vehicle stability systems. Students will be trained in four wheel alignment procedures, suspension system repairs, steering system diagnosis and repair, and proper restraint system safety and procedures. A grade of 'C' or better is required for progression.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

#### **Prerequisites**

HATN121N

### **HATN121N : Honda Service & Maintenance**

A student must earn a 'C' or better in order to progress in this program.

This course is designed to introduce students to basic Honda automotive dealership repair. The course is centered around the topics outlined in both the ASE Education Foundation Maintenance and Light Repair topics (MLR) and the proper procedure for executing the Honda Express Tech Service/Acura Accelerated Service, the students will receive instruction in proper shop safety, proper tool identification and application, vehicle lifting, basic undercar diagnosis, and methods of research for proper vehicle repairs. The skills learned in this course will be directly applied once a student has secured a required internship at a certified Honda/Acura dealership. A grade of 'C' or better is required for progression.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**HATN122N : Honda Brakes & Stability Systems**

A student must earn a 'C' or better in order to progress in this program.

The study of manual, power, disc, and drum braking systems with an emphasis on the diagnosis and repair procedures of master cylinders, wheel cylinders, calipers, brake pad and shoe assemblies and the machining of drums and disc brake rotors. The study of brake subsystems such as parking brakes and anti-lock brakes will be included. Honda specific task objectives shall be covered in detail through the use of Honda training modules as required by the PACT core curriculum. A grade of 'C' or better is required for progression.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

HATN113N, HATN121N.

**HATN185N : Engine Performance I**

The basic theory of engine performance and its effect on emissions will be discussed in depth. The operation and interactions of the ignition, fuel, valve timing, throttle and modulated displacement systems and their individual effects on emissions, performance and fuel economy will be explored. Included in the study will be sensor operations, diagnosis and testing required to service and repair engine malfunctions related to the ignition, fuel and emission controls. All relevant computer controlled system operation will be discussed in this course with emphasis given to Honda preferred diagnostic procedures. In addition, students will be reintroduced to scan tool diagnostics as well as advanced diagnostic procedures utilized by Honda.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

HATN113N, HATN121N.

**HATN190N : Honda Dealer Internship I: Capstone Course**

Seven Internship credit hours total must be earned in order to graduate.

The Honda Internship course is designed to be a supplement to the Honda PACT program learning experience. Students will be required to complete a total of 170 hours of in dealership work experience during the semester. The internship experience is a paid internship that must take place at a Honda or Acura dealership. Students will be responsible for completing a journal that will document their hours worked, assigned workload, and overall dealership experience. This course will be designated as a Pass/Fail course. Periodic internship visits will be performed by the assigned instructor to monitor student progress.

**Class Hours** 0

**Lab Hours** 12

**Credits** 2

**Prerequisites**

HATN113N, HATN121N and a CGPA of 2.0.

**HATN191N : Honda Dealer Internship III: Capstone Course**

Seven Internship credit hours total must be earned in order to graduate.

The Honda Internship course is designed to be a supplement to the Honda PACT program learning experience. Students will be required to complete a total of 170 hours of in dealership work experience during the semester. The internship experience is a paid internship that must take place at a Honda or Acura dealership. Students will be responsible for completing a journal that will document their hours worked, assigned workload, and overall dealership experience. This course will be designated as a Pass/Fail course. Periodic internship visits will be performed by the assigned instructor to monitor student progress.

**Class Hours** 0

**Lab Hours** 12

**Credits** 2

**Prerequisites**

HATN113N, HATN121N and a CGPA of 2.0.

**HATN192N : Honda Dealer Internship IV: Capstone Course**

Seven Internship credit hours total must be earned in order to graduate.

The Honda Internship course is designed to be a supplement to the Honda PACT program learning experience. Students will be required to complete a total of 170 hours of in dealership work experience during the semester. The internship experience is a paid internship that must take place at a Honda or Acura dealership. Students will be responsible for completing a journal that will document their hours worked, assigned workload, and overall dealership experience. This course will be designated as a Pass/Fail course. Periodic internship visits will be performed by the assigned instructor to monitor student progress.

**Class Hours** 0

**Lab Hours** 12

**Credits** 2

**Prerequisites**

HATN113N, HATN121N and a CGPA of 2.0.

**HATN195N : Honda Dealership Internship II: Capstone Course**

Seven Internship credit hours total must be earned in order to graduate.

The Honda Internship course is designed to be a supplement to the Honda PACT program learning experience. Students will be required to complete a total of 300 hours of in dealership work experience during the semester. The internship experience is a paid internship that must take place at a Honda or Acura dealership. Students will be responsible for completing a journal that will document their hours worked, assigned workload, and overall dealership experience. This course will be designated as a Pass/Fail course. Periodic internship visits will be performed by the assigned instructor to monitor student progress.

**Class Hours** 0

**Lab Hours** 24

**Credits** 3

**Prerequisites**

HATN113N, HATN121N and a CGPA of 2.0.

**HATN205N : Honda Advanced Electrical & Electronic Systems**

This course is designed to give students a better understanding of the theory, operation, diagnosis and repair practices that are utilized in Honda advanced electrical systems. The topics will include, computer controlled systems, electric motor circuits, computer communication systems, body computers, multiplexing, keyless entry and hybrid systems. In addition, students will be required to complete all Advanced Electrical self-study modules, as well as Honda designated skill module for successful completion of this course.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisite Courses**

HATN113N

**HATN215N : Honda Engine Performance II**

This course is an advanced in-depth study of the engine computer management system and the various engine emission and fuel evaporation systems required to meet Federal emission and economy standards. The course will include an in-depth study and use of test equipment and scan tool operations necessary to diagnose and repair engine performance malfunctions related to the ignition, fuel and emission controls.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisites**

HATN185N, HATN205N.

**HATN221N : Honda Heating & Air Conditioning Systems**

The theory and operations of Honda climate control systems including safety, diagnosis, service and repair will be covered. Major areas of study will include: manual and automatic controls for heating and air conditioning systems, diagnosis and repair of failed components and recovery/evacuation and charging of refrigerant systems. There will be an emphasis on safety and refrigerant recovery procedures as well as the proper use of test equipment.

**Class Hours** 2

**Lab Hours** 4

**Credits** 4

**Prerequisite or Corequisite**

[PHYS101N](#)

**Prerequisite Courses**

HATN121N

HATN113N

**HATN226N : Honda Transmissions & Drivelines**

This course is designed to introduce students to the basic principles employed in the construction, operation and diagnosis of the various components and systems involved in the transmissions (manual, automatic and CVT) of current automotive vehicles. Topics for this course include cover clutches, transmissions/transaxles, both front and rear wheel drive train components including drive shafts, axles and differentials. Four-wheel drive and all-wheel drive systems are discussed as well. This course is designed to meet the requirements of ASE Education Foundation certification in the topic of manual drive train and axles as well as automatic transmissions. All required Honda modules (both self-study and skill) will be included as course work for this course.

**Class Hours** 2

**Lab Hours** 6

**Credits** 4

**Prerequisite Courses**

HATN114N

HATN121N

**HATN228N : Honda Engine Repair**

This course is designed to give students a better understanding of current practices involved in the diagnosis, disassembly, cleaning, repair and reassembly of today's modern engines. Topics for this course will include engine diagnostic procedures, engine removal practices, proper teardown, cleaning and inspection processes, best practices for component repair/replacement, reassembly and engine reinstallation. There will also be discussion about engine design and some specifics regarding certain engine features that are manufacturer specific. This course is designed to meet all of the requirements for ASE Education Foundation certification and Honda modules in the Engine Repair section.

**Class Hours** 2

**Lab Hours** 6

**Credits** 4

**Prerequisite or Corequisite**

[PHYS101N](#)

**Prerequisites**

Successful completion of all previous semester Honda coursework

## Human Services

**HSV111N : Introduction to Human Services**

This course will provide an introduction to the background information and concepts necessary to understand the theory and practice of human services. The information will be drawn from disciplines of history, sociology, and psychology, joined together by values-based themes of social role valorization, ethical behavior, and quality of life. Current influences on Human Services such as managed care will be discussed.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**HSV123N : Supportive Communication Skills**

This course provides an awareness and general practice of interactional communication skills expected in a supportive relationship. Supportive communication will be taught through verbal instructions, case studies, and peer and self assessment. Observation and evaluation methods will be incorporated to assess the student's communication skills.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**HSV190N : Fieldwork I**

A lab course designed to provide comprehensive experience in application of knowledge and values learned in previous course work. Students will select a program or facility which provides social services and will work at this site as a supervised intern. Regular meetings with the internship advisor and fellow interns will provide opportunities for discussion and evaluation of the fieldwork experience. This internship is focused on direct observation of professionals in human services. Educational and direct service activities will also be credited as part of the internship experience. Students will be able to continue on with the current internship placement for the following internship. Pre-approval of fieldwork site by Department Chairperson is required before placement. Students are expected to have field work placement before class begins.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisite or Corequisite**

[HSV123N](#), General Education Core Requirement: Behavioral Social Science.

**HSV210N : Introduction to Addiction Recovery Support Work**

This course is designed to introduce students to the guiding principles of addiction recovery support. Students will learn about the four domains of recovery support (Ethical Responsibility, Advocacy, Mentoring & Education, Recovery & Wellness Support) and the twelve core functions of alcohol and drug abuse counselors (screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, client education, referral, reports and record keeping and consultation). Students will understand the varying roles of substance abuse treatment professions as well as the levels of care ranging from acute to aftercare and relapse prevention. The essential nature of trauma informed approaches and the importance of cultural competence in practice are embedded throughout the course. Students will develop awareness of the importance of boundaries, culturally sensitive and trauma informed practice and legal and ethical issues in recovery support.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**HSV225N : Family Dynamics**

This course examines the most widely used theories of family therapy. This will include an overview of couple therapy, marriage counseling and family systems approach.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

PSYC212N

**Corequisites**

PSYC222N.

**HSV291N : Capstone Experience (Fieldwork)**

Pre-approval of fieldwork site by Department Chairperson is required before placement. A GPA of 2.0 is recommended. A lab course designed to provide comprehensive experience in application of knowledge, skills and values learned in previous coursework. The focus is on synthesis, integration and application of previous learned knowledge both in the classroom and in the field. Students will select a program or facility which provides human services and will work at that site as a supervised intern. Weekly meetings with the instructor and fellow interns will provide opportunities for discussion and evaluation of the work experience. This internship continues the work focusing more on direct service activities that was started in Fieldwork I. Assessment, planning, and intervention skills will be emphasized as well as activities dealing with advocacy, case management, documentation and recording competencies, with a focus on the information/referral process. Students are expected to have field work placement before class begins. Educational/observational activities will also be credited as part of the internship experience.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisite Courses**

HSV190N

**Corequisites**

HSV225N, PSYC222N.

## Humanities

**HUMA101N : Introduction to the Humanities**

An overview of the content and purpose of the humanities, this course explores the relationship of the individual to society through materials from various humanities disciplines. Creative imagination and social context, universal versus culture-specific qualities of human experience and expression, the connection between appreciation and analysis, as well as the concept of criteria for evaluative judgments, are explored through sample topics from a variety of Humanities subjects. Sources from the visual arts, literature, religion, philosophy, history and the social sciences will be included. The terms and methods of analysis used in these various fields of study will be stressed.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.



**HUMA102N : Art Appreciation**

This course combines experience in the appreciation of painting, sculpture and architecture so that the student may analyze and interpret works of art. The class will study the artist's materials, messages and language (i.e. color, line, shape, shade, texture, volume space and composition). Field trips may be part of this curriculum and students may incur nominal fees.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

**HUMA103N : Music Appreciation**

This course is a survey of music history from the Middle Ages to the present and includes selected listening samples. The course looks at music's relationship to other art forms along with significant societal and historical events. Focus is on selected composers, the elements of music, its forms, and the musical characteristics of each period. Attendance at a rehearsal or concert performed by professional musicians is a requirement of this course and may incur a nominal fee.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

**HUMA110N : Critical Thinking Skills**

This course explores the relationship between communication and critical thinking. It explores logical thought and analysis with an emphasis on cause-and-effect and logical premise-and-conclusion arguments. Students will examine how to assess effective arguments and how to determine fallacious reasoning.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[ENGL101N](#) or [ENGL110N](#).

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

**HUMA120N : Introduction to Theatre**

In this course, students will engage in an overview of the world of theatre through the study of theatre history, dramatic literature, theatre performance and production, and the practical application of theatre skills to a real life situation. Emphasis is on theatre as an important aspect of our culture both historically and in the present day. Through the study of theatre history, dramatic literature, performance, and design, students will improve their understanding of this collaborative art form and its place in today's world. This knowledge will be put to practical use in the form of readings from selected works, observing theatrical performances and becoming actively involved in a theatre event. For an informed understanding of this art, students will attend one live theatrical performance. The student will be responsible for the cost of one ticket for an off campus production. Students will gain confidence in their abilities to be a part of a performing arts event as well as an appreciation for the importance of culture in our daily lives.

**Credits** 3

**Prerequisites**

[ENGL101N](#) or [ENGL110N](#).

**HUMA130N : Music Composition**

This course is designed for the student with little or no knowledge of music. Instruction will begin with the fundamentals of music theory including note values, the Grand Staff, meter, scales, chord structure, and chord progressions. These basics will provide the foundation for creating and harmonizing simple original musical compositions. The process will also include analysis of already existing music, and the development of listening skills including basic music dictation.

**Credits** 3

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

**HUMA140N : American Cinema**

This course explores Hollywood film as an art form, industry and system of representation and communication. In one sense, this is a language course - the language of film. The course will explain how Hollywood films work technically, artistically and culturally to reinforce and challenge America's national self-image.

**Credits** 3

**HUMA145N : American Popular Culture**

Basic theories of and approaches to the study of popular culture, including various media, folklore, religion and everyday life. Various forms of popular culture including music, film, television, advertising, sports, fashion, literature, and digital media may be analyzed. Students will assess how American popular culture reveals historical, political, sociological and economic forces at work that influence our lives.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N

**HUMA207N : Comparative World Religions**

A survey course exploring the universality of religion in human experience and in various cultures. This course will cover the religious traditions that have a major influence in our world today: Taoism, Buddhism, Hinduism, Islam, Judaism, Christianity, the Sikhs, Baha'i, and Native American spirituality. Cultural or societal change and the relationship of religion with socio-political conditions will be referenced, but emphasis will be placed on a comparison of religious ideas, ethics, rituals, devotional practices and the teachings of the founders, prophets, and major leaders who have shaped each religious tradition (rather than on institutional history). A portion of the study of each religion will focus on reading selections from its primary sources: sacred myths, and scriptures.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: Global Awareness.

**HUMA220N : Classic Myths in Western Civilization**

This course will focus on myths from Ancient Greece but will also include Norse myths and material from the Old Testament, Mesopotamia, and Celtic Britain. We will read some of the greatest stories ever told and discuss how to interpret the mythic descriptions of the relationship between immortals and mortals found in these stories of creation and conflict, madness and love, heroic quest and divine punishment. Some study of historical context will be involved; however, the emphasis will be on exploring the universal qualities that explain why certain myths have outlived their cultural roots to become a meaningful part of the heritage of Western Civilization. Students will explore whether certain elements must be present for a story to be accurately labeled as mythic. Myths and legends will be read in prose or verse translations. Short excerpts will also be read from some of the major modern European and American authors who have been inspired by them. Evidence of the persistence of mythic and heroic archetypes in the visual arts, music, movies, high fantasy literature and popular culture [including RPGs] will also be explored. This course fulfills a General Education Core Requirement: 'Humanities/Fine Arts'.

**Credits 3**

**Prerequisites**

Any one of the following courses or by permission of the instructor or department chair: HUMA101N or HUMA107N or HIST101N or PSYC101N.

**HUMA230N : Ethics in the Workplace**

An introductory study of classical and contemporary ethical philosophies and how these philosophies apply to current business practices. The course stresses analytical and problem-solving skills to comprehend the ethical dimensions of business relationships: employer to employee; managers to owners; manufacturers to consumers; and corporations to the environment.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

### **HUMA280N : Topics in the Humanities**

This course provides students with an opportunity to learn in depth about an area not covered by existing courses in the Humanities curriculum and prepares students for an advanced study of a humanities discipline at the bachelor degree level. The topic choice is at the discretion of the instructor and may focus within the fine arts, humanities, philosophy or religion. Through a summative assessment, students will apply knowledge and skills learned through previous program coursework by producing a project on the topic that integrates critical thinking, analysis and writing through strategies of research and interpretation. Course syllabus will be made available prior to the start of registration.

**Credits 3**

#### **Prerequisites**

Minimum grade of B- in ENGL101N or ENGL110N, and HUMA101N.

## **Machine Tool Technologies**

### **MTTN101N : Manufacturing Processes**

The student is introduced to the preparation of materials for manufacturing through the extraction and development of ferrous and nonferrous metals and the influence of elements in the production of alloy steels and irons. The classifications of steel, the mechanical and physical characteristics of metals as well as heat treatment processes are also covered. Manufacturing processes such as forging, powdered metal processes, sand castings, additional casting processes, presswork, rolling, drawing, bending, extrusion, welding, electrical discharge machining (EDM), electrochemical machining (ECM), and numerical control (NC) operations are emphasized.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

### **MTTN111N : Machine Tool Processes and Theory I**

This course introduces the student to the fundamentals of basic machining, the machines covered include: the engine lathe, vertical mill, and other standard machine tools. Machining topics such as turning, boring, drilling, threading, drill and lathe tool grinding along with shop safety will be discussed. An in-depth look at lathe tool geometries, drill sharpening, and various off hand grinding techniques along with basic print reading, inspection methods and tools will be covered. A student must earn a grade of 'C' or better to achieve a passing grade in this course.

**Class Hours 3**

**Lab Hours 9**

**Credits 6**

### **MTTN118N : Machining Technology**

This course is designed to teach the student the basic operation of the engine lathe and the manual vertical milling machine and the processes associated with them. The course will include the study of lab safety, measuring tools, as well as the fundamentals of reading and interpreting a blueprint to produce a close tolerance part.

**Class Hours 2**

**Lab Hours 3**

**Credits 3**

### **MTTN122N : Machine Tool Processes and Theory II**

This course is a continuation of [MTTN111N](#) with an emphasis on advanced lathe and mill operations on more complex parts and assemblies. Conversational programming on CNC machines is introduced on both lathe and mill. Basic Geometric Dimensioning and Tolerancing is taught as part of expanding the understanding and interpretation of modern blueprints. Projects will include assemblies of milled and turned parts as well as heat treated and surface ground parts. Instruction will be given in proper wheel selection and grinding techniques. Students will complete several individual projects that utilize all these machining methods. Mechanical concepts such as gears, simple machines, and machine components will be discussed. A student must earn a grade of 'C' or better to achieve a passing grade in this course.

**Class Hours 3**

**Lab Hours 9**

**Credits 6**

#### **Prerequisites**

[MTTN111N](#), A grade of 'C' or better is required in [MTTN111N](#).

### **MTTN123N : Principles of CNC**

Topics studied in this course include a full description of programming, machine terminology, operations, and equipment used in CNC (computer numerical control). Students will be taught manual programming techniques using standard G and M codes for basic vertical CNC milling applications. The setup and machining of simple projects on the Acu-Rite, Prototrak, and Haas machines will offer students real world machining experience.

**Class Hours 2**

**Lab Hours 3**

**Credits 3**

#### **Prerequisites**

[MTTN111N](#) or permission of instructor.

**MTTN201N : Lean and Green Manufacturing Methods**

This course introduces the student to the fundamentals of Lean Six Sigma and the philosophies of Dr. W. Edwards Deming and the Toyota Way. These methodologies include production, process and inventory control, continuous improvement methods and how they apply to concepts of Lean Six Sigma. In addition, the application of these philosophies in plant management, safety, waste analysis and workflows will be studied and applied. Green manufacturing innovations, ISO 14000 standards and processes will also be reviewed. Case studies of existing plants will be used in the course. Guest lecturers and possible plant tours to see these topics in action will be part of the course as schedules permit.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Prerequisites**

[MTTN101N](#) or permission of Program Coordinator/Department Chair.

**MTTN223N : Computer Aided Manufacturing (CAM)**

A course designed to introduce students to Computer Aided Manufacturing (CAM) software and its applications to Computer Numerical Control (CNC) machine tools. Students will import CAD files and draw machine parts through the use of Mastercam X, and produce and post programs to run CNC milling machines and CNC lathes.

**Class Hours** 2**Lab Hours** 3**Credits** 3**Prerequisites**

CAD131N, MTTN123N or permission of instructor.

**MTTN231N : Advanced Machine Tool Processes and Theory I**

The student will increase proficiency and knowledge in the following areas with stress on accuracy and speed: Milling machines, surface grinding, machining with conversationally programmed CNC machines, electrical discharge machining, digital readout units and CNC milling and turning (programming & operation). A student must earn a grade of 'C' or better to achieve a passing grade in this course.

**Class Hours** 3**Lab Hours** 9**Credits** 6**Prerequisite Courses**

MTTN122N

**Co-Requisite Courses**

MTTN123N

**MTTN232N : Advanced Machine Tool Processes and Theory II: A Capstone Experience**

This course will emphasize the application of CAD/CAM in the manufacturing of a quantity of machined parts. Students will utilize CAM software, conversational programming and manual programming skills. Live tooling and fourth axis work will be covered as it relates to the CNC lathe and mill. In addition, students will participate in a service learning project as well as individual projects and/or group projects. Students will also be taught various job hunting techniques such as resume writing and interviewing skills to assist them in their job search.

**Class Hours** 3**Lab Hours** 9**Credits** 6**Prerequisites**

MTTN123N, a grade of 'C' or better in MTTN231N.

## Mathematics

**MATH099N : Algebra I**

Algebra I is a preparatory math course that deals with basic and intermediate algebra topics ranging from solving equations, inequalities, systems of linear equations, factoring and simplifying algebraic expressions, to basic graphing techniques. Focus will be on applying these skills to solving problems. A minimum passing grade of 'C' is required. Credits do not count toward degree requirements.

**Credits** 3**Prerequisites**

Appropriate placement.

**MATH103N : Quantitative Reasoning**

This course is designed to expose the student to a wide range of general mathematics. Problem Solving and Critical Thinking skills, along with the use of technology, will be emphasized and reinforced throughout the course as the student becomes actively involved solving applied problems. Topics included: Number Theory and Systems, Functions and Modeling, Finance, Geometry and Measurement, Probability and Statistics, and selected subtopics. Students who do not satisfactorily place into MATHN103N will be required to enroll in the corresponding Co-Requisite Workshop.

**Class Hours** 4**Lab Hours** 0**Credits** 4**Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

### **MATH106N : Statistics I**

UNH Transfer Preference

An introductory course in modern statistics concerned with the basic concepts involved in the planning and conduct of a statistical analysis. Special emphasis is placed on an integrated coverage and presentation of descriptive and inductive statistical tools and techniques in support of meaningful decision making. Topics include scales of measurement, random sampling, graphs and tables, measures of central tendency, probability and probability distributions, confidence interval, error and sample size estimation, hypothesis testing, linear correlation, regression analysis, and prediction. Students who do not satisfactorily place into [MATH106N](#) will be required to enroll in the corresponding Co-Requisite Workshop.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

#### **Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

### **MATH107N : Honors Statistics I**

An introductory course in statistical analysis will explore how the application of statistical methods can be utilized to accurately interpret data from various fields of study. Students will learn how to employ the necessary skills relating to scales of measurement, random sampling, graphs and tables, measures of central tendency, probability distributions, confidence intervals, error and sample size estimation, linear correlation, and regression analysis. The project-based approach will allow students to test hypotheses and clearly communicate research findings through interpretative data. Students will apply mathematical analysis toward the advancement of new interpretations and development of arguments, a critical thinking skill set essential in all academic and professional fields.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

#### **Prerequisites**

Placement into MATH110N or above.

#### **Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

### **MATH110N : Algebra & Trigonometry**

This course covers essential algebraic and trigonometric concepts and prepares students for future study of Precalculus and Calculus. Algebraic topics include: quadratic functions, radical equations, transformations, composite functions, polynomial functions, remainder and factor theorems, and rational functions. Trigonometry topics include right triangle trigonometry and the laws of Sines and Cosines. Vectors are also studied and applications are emphasized.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

#### **Prerequisites**

Students who do not satisfactorily place into MATH110N will be required to enroll in the corresponding Co-Requisite Workshop.

#### **Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

### **MATH115N : Finite Mathematics**

This course examines the fundamental components and most commonly used applications of finite mathematics. Topics include linear models, matrix theory, linear programming, combinatorics, and mathematics of finance. A wide range of applications to economics, life sciences, and social sciences are considered. Students who do not satisfactorily place into MATH115N will be required to enroll in the corresponding Co-Requisite Workshop.

**Credits** 4

#### **Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

**MATH120N : PreCalculus**

This course is intended to prepare students for the study of calculus. Students will investigate the properties of exponential, logarithmic, and trigonometric functions. Trigonometry topics include graphs of trigonometric functions, identities, inverse trigonometric functions, and trigonometric identities. Other topics include complex numbers, polar coordinates, conics, and DeMoivre's Theorem. Additionally, a selection of topics from the following list may be chosen by the instructor: sequences and series, mathematical induction, binomial expansions, systems of equations and inequalities, introduction to derivatives. Mastery of the topics in this course will prepare the student for Calculus.

Applications will be integrated throughout the course and particular attention will be paid to the process of problem solving.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisites**

Placement or MATH110N or permission of instructor.

**Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

**MATH170N : Discrete Mathematics**

This course is concerned with the finite processes and sets of elements that can be listed. It covers the basics of discrete mathematics including propositional logic, proof techniques, fundamentals of counting, sets, relations, functions, trees, graphs and Boolean algebra.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisites**

MATH110N or MATH115N.

**MATH206N : Statistics II**

This course will emphasize the use of statistical procedures in research applications. Students will investigate studies pertaining to business and behavioral sciences and learn to perform the appropriate statistical analysis. Topics include t-tests, hypothesis testing, linear and multiple regression, analysis of variance, and nonparametric statistics. Students will be required to purchase a student version of the computer program SPSS. This course contains a service learning option.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisites**

MATH106N or MATH107N

**Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

**MATH210N : Calculus I**

Calculus is introduced through the study of functions, limits, differentiation and higher order derivatives. Derivatives of polynomial, trigonometric, inverse trigonometric, exponential, and logarithmic functions are covered. Problems in optimization, curve sketching and related rates are considered. Integration is introduced by analyzing the definite and indefinite integral.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisites**

Placement or MATH120N or Permission of instructor.

**Notes**

This course fulfills a General Education Core Requirement: Quantitative Literacy.

**MATH211N : Calculus II**

This course is a continuation of calculus I. Topics include definite and indefinite integration and the use of calculus in the calculation of areas and volumes. Various integration methods are covered including: integration by parts, trigonometric substitution, and partial fractions. Improper integrals are introduced as well as the study of infinite sequences and series, power series, Taylor series, and determining convergence or divergence of series.

**Max Class Hours** -4

**Lab Hours** 0

**Credits** 4

**Prerequisites**

MATH210N

**MATH212N : Calculus III**

A course in the calculus of functions of more than one variable usually follows a year of calculus involving functions of only one variable. This course will commence with discussions of vectors and vector value functions. Partial differentiation, multiple integration, and vector operators including: gradient, divergence, and curl and related integral theorems: Green's theorem, the Divergence theorem, and Stokes' theorem will be introduced and applications will be included throughout.

**Class Hours** 4

**Lab Hours** 0

**Credits** 4

**Prerequisite Courses**

MATH211N

**MATH215N : Linear Algebra**

In this course, students will be introduced to both the theory and the computational methods used in the study of matrices, vector spaces, linear transformations, diagonalization, eigenvalues, and orthogonality. Students are expected to use mathematical reasoning to read and write proofs pertaining to the study of course material.

**Class Hours** 4**Lab Hours** 0**Credits** 4**Prerequisite Courses**

MATH210N

**MATH220N : Differential Equations**

This first course in differential equations studies the theory, solutions methods, and application of ordinary differential equations. Topics include separable differential equations, method of integrating factors, method of undetermined coefficients, variation of parameters, Laplace transforms, numerical methods, and series solutions to differential equations.

**Class Hours** 4**Lab Hours** 0**Credits** 4**Prerequisite Courses**

MATH211N

## Mechanical Design Technologies

**MDTN110N : Automation Programming**

Students will learn the basic concept of programming a robot. Students will design, construct, and program robots and machinery for varied design applications. Robots will be both benchtop and IR controlled. Laboratory exercises compliment classroom instruction.

**Class Hours** 1**Lab Hours** 4**Credits** 3**Prerequisites**

CAD111N.

**MDTN285N : Mechanical Design Capstone**

Students work in teams under the direction of a faculty advisor to complete an engineering design project. Students will create a mockup of their design leading to the development of a prototype to test and verify the effectiveness of their design. Students will present their design and prototype to the Technologies Department Advisory Board for evaluation.

**Class Hours** 3**Lab Hours** 2**Credits** 4

## Mechanics

**ELMT203N : Applied Mechanics I**

Introduction to material science, stress and strain in materials, and failure modes in materials. The study of mechanical components such as springs and fasteners is begun.

**Class Hours** 3**Lab Hours** 1**Credits** 3**Corequisites**

PHYS130N or PHYS101N.

**ELMT204N : Fluid Power Design**

The dynamics of liquids and gases encountered in traditional manufacturing, industrial automation, and vehicular applications.

**Class Hours** 2**Lab Hours** 1**Credits** 2**Prerequisite Courses**

ELMT203N

**ELMT210N : Applied Mechanics II**

Continuation of the study of mechanical components with shafts, clutches, belt and chain drives, etc. Emphasis is on proper selection and operating conditions for reliable operation.

**Class Hours** 2**Lab Hours** 1**Credits** 2**Prerequisite Courses**

ELMT203N

# Nursing

## **NURS125N : Fundamental Concepts & Skills for Nursing Practice**

LPNs may challenge by exam

This foundational nursing course introduces students to major concepts and basic nursing skills to deliver safe nursing care across the lifespan. Class content includes Introduction to Nursing, Working in the Healthcare System, Care of the Human Being, Nursing Process and Critical Thinking, Health Assessment, Meeting Basic Human Needs Across the Lifespan, Patient/Family Education, Concepts of Medication Administration, and Contemporary Contexts for Professional Nursing. Student practice skills related to the class content in clinical facilities and the simulation laboratory under the supervision of a registered nurse. Upon completion of the course, the student is eligible to seek NH licensure as a licensed nursing assistant (LNA).

**Class Hours** 4

**Lab Hours** 12

**Credits** 8

### **Prerequisites**

BIOL201N, PSYC101N

### **Corequisites**

BIOL202N, PSYC201N

## **NURS140N : Nursing Care I: Concepts and Skills**

This course introduces students to safe nursing care of patients with alterations in physical and mental health conditions across the lifespan. Pathophysiology, pharmacology, and interdisciplinary interventions for selected health alterations affecting integumentary, cardiac, respiratory, endocrine, musculoskeletal, and neurological/ mental health conditions will be studied. Concepts and skills introduced in [NURS125N](#) will be applied and further developed throughout the semester. Clinical experiences occur in a combination of settings including inpatient acute rehabilitation, inpatient/ outpatient psychiatric, and simulation lab.

**Class Hours** 4

**Lab Hours** 12

**Credits** 8

### **Prerequisite Courses**

NURS125N

PSYC201N

BIOL202N

## **NURS220N : Nursing Care II: Concepts and Skills**

This course applies previous learning in nursing, life sciences, social sciences, and the nursing process to the care of patients across the lifespan with acute. A systematic approach to each unit will include levels of prevention, pathophysiology, lifestyle alterations, environmental impact and modification, cultural considerations, interdisciplinary care plans, and legal and ethical implications inherent in delivering patient care. Clinical experiences will occur in the acute care hospital setting.

**Class Hours** 4

**Lab Hours** 15

**Credits** 9

### **Prerequisites**

NURS140N, NURS230N and BIOL210N.

## **NURS230N : Pharmacology for Nursing Practice**

This course presents information related to the nurse's role in the pharmacological prevention and treatment of health alterations. Students will study foundational principles of pharmacokinetics and pharmacodynamics and covers common drugs in clinical use. Emphasis is on safe administration of medication across the lifespan, assessment of its effectiveness, patient and family education, and ethical and legal issues related to the nurse's role in pharmacotherapeutics.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

### **Prerequisite Courses**

NURS125N

NURS140N

## **NURS240N : Management of Nursing Care Across the Lifespan**

This course requires students to apply all previous learning to care of patients/families with complex and/or emergent health alterations. Concepts of maternal-child health care, critical care, community health nursing, leadership, management, health care policy and trends, and transition to practice will be studied. Clinical experiences will occur in a combination of acute care hospital and community settings.

**Class Hours** 4

**Lab Hours** 15

**Credits** 9

### **Prerequisites**

NURS220N, NURS230N, BIOL210N



# Paralegal

## **PLGL101N : Basic Legal Studies**

This course introduces the student to the field of law. The course will examine the role of paralegals working for attorneys in the practice of law. The student will gain an understanding of the structure and operation of the legal systems in the United States, both state and federal, with a fundamental knowledge of the major areas of substantive and procedural law. The student will acquire an understanding of the important ethical rules governing attorneys in the practice of law, and will gain valuable practical knowledge for beginning a career and working in the legal field.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[ENGL101N](#) or [ENGL110N](#).

## **PLGL102N : Legal Research and Writing**

This course will develop strong legal writing, research and analytical skills. Students will be required to engage in frequent "hands-on" exercises in legal research and legal writing to enhance research, writing and analytical abilities. The student will acquire an understanding of legal research tools, methods and resources. Solid and proficient "book shelf" research will be developed; thereafter, electronic research tools, methods and resources will be learned. The course will demonstrate the importance of thorough legal research and effective and professional legal writing for assisting the attorney in providing competent and quality legal services.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

[ENGL101N](#) or [ENGL110N](#), [PLGL101N](#).

## **PLGL210N : Litigation and Trial Preparation**

This course covers an overview of all phases of civil litigation. Emphasis will be on civil "causes of action" (claims) and defenses at common law, under statutes, and based in tort law and contract law. Functional skills acquired include preparing and maintaining the file, gathering information through client and witness interviews, investigation, drafting pleadings and motions, organizing and indexing documents, compiling evidence, examining public records, preparing briefs and memoranda, preparing discovery, and assisting the lawyer in preparing for trial and at trial.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[PLGL102N](#), [PLGL230N](#).

**Prerequisite Courses**

[PLGL101N](#)

## **PLGL220N : Real Estate Law**

This course covers the fundamental principles and procedures in the practice of real estate law. The student will be capable of assisting in most phases of residential real estate transactions. Functional skills acquired include reviewing and understanding real estate instruments and documents, title insurance binders and policies, surveys; assisting in the preparation and drafting of deeds, purchase and sales contracts, title affidavits, escrow agreements, use and occupancy agreements, notes, mortgages and related financing documents; and preparing for and attending residential closings.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[PLGL102N](#)

**Prerequisite Courses**

[PLGL101N](#)

## **PLGL230N : Contracts and Business Organizations**

The student will have acquired a complete knowledge of the fundamental legal doctrines and principles of the law of contracts; will be familiar with the significant Articles of the Uniform Commercial Code governing Sales, Negotiable Instruments and Secured Transactions; will have acquired a fundamental and practical knowledge of agency law and employment law. From a legal perspective, the graduate will also have a full understanding of the nature, characteristics, formation, operation and termination of the different for-profit business entities; as well as the legal, duties, rights and liabilities of persons associated with such organizations, and related legal actions. Functional skills acquired include assisting in the preparation of business contracts, employment agreements, and documents in the formation of such business entities including: drafting of articles of incorporation, corporate by-laws; preparing notices and minutes for meetings of the board of directors and shareholders; and drafting partnership agreements.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[PLGL102N](#)

**Prerequisite Courses**

[PLGL101N](#)

**PLGL240N : Probate, Estates, and Trusts**

This course will enable the student to be capable of assisting in the probating, planning and administration of the probate estate. Functional skills acquired include assisting in the preparation of simple wills, revocable trusts, irrevocable trusts, assisting in the preparation of probate documents including inventory forms, final accounting forms, maintaining accounts, and assisting the attorney in the remainder of the probate process. The course will also examine living wills, estate planning, and estate taxes.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[PLGL102N](#), [PLGL220N](#)

**Prerequisite Courses**

[PLGL101N](#)

**PLGL250N : Family Law**

This course will examine the substantive and procedural law relating to family law and particularly with regard to legal ethics, marital and cohabitation agreements, marriage, divorce, separation, division of marital property, annulment, adoption, support of spouse and child, and child custody issues. The student will be prepared to assist the attorney in client interviews, information and document gathering, preparation of matrimonial disclosure forms, the drafting of agreements and pleadings related to divorce and family law proceedings. This course also contains an optional service learning component or assignment.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[PLGL102N](#)

**Prerequisite Courses**

[PLGL101N](#)

**PLGL260N : Criminal Law**

In this course, the student will examine the significant legal concepts, principles, legal doctrines, procedures and practice of criminal law in the local and state (according to New Hampshire law and procedure) and federal court systems; and will trace the steps by which the criminal procedure is followed: from stop and arrest, prosecution, the initial client interview, pre-trial, through trial, and post-trial procedure, motions and appeals.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[PLGL102N](#)

**Prerequisite Courses**

[PLGL101N](#)

**PLGL280N : Paralegal Capstone Experience**

The Paralegal Capstone Course is designed to prepare the student for obtaining and maintaining employment in the paralegal profession. Students will discuss the application of their knowledge of the law and the legal system, the practical knowledge necessary for successfully working as a paralegal in the field of law, and a review of the ethical rules governing attorneys. The students will review the major skills they acquired during the Paralegal Studies Program and apply them to practical assignments and projects. Students will also complete a Portfolio containing selections of their legal work-product, and will prepare a professional resume which best presents their attributes and employment potential. This course will also prepare the student for the employment process, from job search through interview and hiring.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

For students in the Degree Program, completion of all catalog-listed courses for the first three semesters.

**PLGL290N : Paralegal Internship & Seminar**

The Internship and Seminar in Paralegal Studies consists of: 1) an internship which is a hands-on learning experience at law firm, public agency, corporation, or other law-related organization, under the direct supervision of a lawyer; and, 2) a capstone seminar of one class contact hour per week designed to prepare the student for obtaining and maintaining employment in the paralegal profession.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

For students in the Degree Program, completion of all catalog-listed courses for the first three semesters, a cumulative grade point average of at least 3.0 in the Degree Program, and approval of the faculty internship coordinator. For students in the Certificate Program, completion of six of the eight catalog-listed paralegal specialty courses, a Bachelor Degree from an accredited institution, a cumulative grade point average of at least 3.0 in the Certificate Program, and approval of the faculty internship coordinator.

# Philosophy

## **PHIL109N : Introduction to Philosophy**

An introductory level course covering the basic branches of philosophy: Metaphysics, Epistemology, Ethics, Political & Social Philosophy, Aesthetics and Logic. Students will examine and evaluate their personal philosophies as they relate to the ideas of classical and modern philosophers.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[ENGL101N](#) or [ENGLN110](#)

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

## **PHIL130N : Honors Ancient Greek Philosophy**

The main objective of this course is to develop students' understanding of ancient Greek philosophy by examining in depth the work of its three major representatives: Socrates, Plato, and Aristotle. Attention will be given both to the social and historical context in which the ideas of these thinkers arose and to the influence of their ideas across the Western world over the course of history. The course will help the student develop a sense of the intrinsic value of these classical modes of thought for her or his own ethical development as well as to the development of later civilizations. After all, Athenian social life was as fraught as any contemporary society with tensions between truth and deception, virtue and moral relativism, and ethics and self-centeredness. Understanding how the ideas of the classical philosophers evolved in response to these tensions will help students link the relevance of their ideas to the development of individual and social values at almost any point in history. Students will be encouraged to make connections between past and present through exploration of three fundamental questions: What does it mean to live a good life? What is the difference between knowledge and belief? What is an ideal society, and what roles should various groups have within it?

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite or Corequisite**

[ENGL110N](#) or [ENGL101N](#) and permission of the Honors Program Coordinator or Admissions into the Honors Program.

**Notes**

This course fulfills a General Education Core Requirement: Humanities/ Fine Arts.

# Physics

## **PHYS101N : Physical Science I**

This course studies the impact of physics on everyday life. Topics include motion, gravity, heat, electricity and magnetism, waves, sound, light and the physics of the atom. Conceptual understanding is emphasized over mathematical manipulation.

**Class Hours** 3

**Lab Hours** 2

**Credits** 4

**Prerequisites**

[MATH099N](#) or Placement into college level math.

**Notes**

This course fulfills a General Education Core Requirement: Science.

## **PHYS115N : Astronomy**

This course offers an introduction to astronomy. The course offers a broad introduction to the solar system, stars, and stellar evolution, galaxies, and cosmology.

**Credits** 4

**Notes**

This course fulfills a General Education Core Requirement: Science.

## **PHYS130N : Physics I**

Serves as the first semester of a one-year course which surveys the field of physics at a non-calculus level. Topics include force and motion, vectors, gravity, energy and momentum, heat and thermodynamics, and oscillations.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisites**

[MATH 110N](#) (A grade of 'C' or better is recommended).

**Notes**

This course fulfills a General Education Core Requirement: Science.

## **PHYS131N : Physics II**

A continuation of the study of physics at the non-calculus level. Topics include waves and sound, optics, electricity and magnetism, atoms, nuclei and modern physics.

**Class Hours** 3

**Lab Hours** 3

**Credits** 4

**Prerequisite Courses**

[PHYS130N](#)

## **PHYS230N : Calculus-Based Physics I**

A study of classical physics using calculus. Topics include linear and projectile motion, forces, momentum, energy, gravitation and oscillations.

**Credits** 4

**Prerequisite or Corequisite**

[MATH210N](#)

**PHYS231N : Calculus-Based Physics II**

A study of classical physics using calculus. Topics include fluids, thermodynamics, electricity and magnetism.

**Credits** 4

**Prerequisite Courses**

PHYS230N

## Political Science

**POLS101N : Introduction to Political Science**

This course offers an introduction to a variety of contemporary political systems and practices. Topics include an examination of communism, democracy, socialism, authoritarianism as well as other political structures. Political philosophy, theory, culture, structure, and institutions will be examined

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Notes**

This course fulfills a General Education Core Requirement: History/ Political Science.

**POLS102N : American Government & Politics**

This course provides an introductory examination of the American political system by reviewing the evolution of the executive, legislative, and judicial branches of government. It also covers topics such as: voting and elections; political parties and candidate selection; and the role of the media and interest groups in U.S. politics. Some state and local political topics may also be discussed

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Notes**

This course fulfills a General Education Core Requirement: History/ Political Science.

**POLS106N : The Citizen and Society**

The course will provide an understanding of the meaning of public policy, its importance, and the role that citizens can take in shaping it. The course will also review operations of government at the local, state and federal levels. Learning techniques to address actual community, state and/or national concerns will be an integral part of the course. Students will engage in the democratic process to apply a model of active citizenship, analyzing and influencing a current public policy. Using deliberation skills, they will work with a group of classmates to accomplish this. Field trips to local and state offices and meeting with public officials may be a part of this course. This course is a requirement for all students in the First Year Program who have not yet selected a major.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Notes**

This course fulfills a General Education Core Requirement: History/Political Science.

**POLS210N : State and Local Government**

This course explores the structure and operation of local and state government. To illustrate general topics, students are presented with specific examples from New Hampshire politics. Field trips to local and state offices and presentations by guest speakers are an integral part of this course.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**Notes**

This course fulfills a General Education Core Requirement: History/ Political Science.

**POLS215N : World Affairs**

This course explores major issues of the contemporary world political environment from both theoretical and factual perspectives. Some of the topics covered include basic International Relations theory, such as: Realism, Idealism, Game Theory, and Foreign Policy Decision Making theory. It also addresses current international issues, such as: international trade; globalization; economic interdependence; the UN and other international organizations; human rights and international law; terrorism, the proliferation of weapons of mass destruction; the environment and population.

**Credits** 3

**Prerequisites**

ENGL101N or ENGL110N.

**POLS220N : American Politics & Mass Media**

This course explores the changing relationship of politics and the mass media. Technology is expanding the definition of mass media and impacting politics by changing how voters participate in the political cycle. Exploring these changes with students will help them to become active and informed political consumers. This course is a hands-on course that not only explores the changing dynamic between the public and its elected leaders, but also challenges students to get involved in local, state or national politics by using the new mass media tools to participate in a political issue. Students must have Internet access to participate in this course.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Prerequisites**

ENGL101N or ENGL110N.

## Psychology

**PSYC101N : Introduction to Psychology**

Proof of successful completion with a C+ or higher and taken within five years of the first nursing course. Anatomy and Physiology I and Intro to Psychology, must be submitted by the nursing application deadline date.

Psychology is the scientific study of cognitions, emotions, and behavior. Core topics include human social behavior, personality, psychological disorders and treatment, learning, memory, human development, biological influences, and research methods. Related topics may include sensation, perception, states of consciousness, thinking, intelligence, language, motivation, emotion, stress and health, cross-cultural psychology, and applied psychology. Psychology also critically evaluates "common sense" assumptions about how people function and relate.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Notes**

This course fulfills a General Education Core Requirement: Behavioral Social Science.

**PSYC130N : Human Relations**

This course will promote student exploration of intrapersonal (within self) and interpersonal (between self and others) aspects of human relationships. An understanding of basic psychological concepts and their connection to interpersonal relationships will be presented. Integration of effective communication, stress reduction, and team and leadership strategies in both the home and workplace will be encouraged.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Notes**

This course fulfills a General Education Core Requirement: Behavioral Social Science.

**PSYC201N : Human Growth & Development**

The study of human growth and development across the lifespan is based primarily in the social sciences of psychology, sociology and anthropology. Emphasis will be given to maturation and development achieved in four interrelated systems: Physical, cognitive, social, and emotional. Development is about change; changes that we share as well as changes that are based on unique environments, social and cultural customs. Attention will be paid to controversies that have developed as a result of living in a diverse and multicultural world.

**Class Hours** 3**Lab Hours** 0**Credits** 3**Prerequisite or Corequisite****PSYC101N****Notes**

This course fulfills a General Education Core Requirement: Behavioral Social Science.

**PSYC202N : Personality Psychology**

This course is designed to provide a basic introduction to personality psychology. Personality is defined as the attributes - behavioral, temperamental, emotional, and mental - that characterize a unique individual and that are relatively stable over time. This course will introduce theories, historical background, modern research, and research methods used in the study of personality. This course will provide the opportunity to broaden understanding of the science of personality and to think critically about the application of personality theory in everyday life.

**Credits** 3**Prerequisite Courses****PSYC101N**

**PSYC205N : Child Psychology**

The developmental processes that start once an egg is fertilized are complex and proceed rapidly. The study of child psychology calls upon many disparate disciplines: Biology, medicine, neurology, language and linguistics, as well as psychology fields, to describe and explain this fascinating period of our lives. Emphasis is placed on the interaction of biological, psychological, and sociocultural influences on normal development. The growing child is considered in terms of physical, social, cognitive, emotional, aesthetic, and moral development. The role of culture is examined throughout the course.

**Credits 3**

**Prerequisite Courses**

PSYC101N

**PSYC206N : Learning and Behavior**

This course includes examining various methods and techniques suitable for the modification of human behavior, based on the principles and findings of experimental studies of animal and human behavior. Considers how such methods can be used in education, mental health, corrections, and self-directed personal change. This course will also provide mental and behavioral health providers, knowledge and skills for supporting students and others displaying challenging behaviors using frameworks of positive behavioral supports.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisite Courses**

PSYC101N

**PSYC207N : Social Psychology**

This course will examine theory and research in the science of individual human behavior in social situations as well as applications of its major principles in everyday life. The course is designed to illustrate how the individual and society are shaped by mutual interaction of mental processes, situational factors, individual differences, and group phenomena within cultures and social structures. Students will investigate the manner in which the behavior, feelings or thoughts of the individual are influenced or determined by the behavior and/or characteristics of others. Diversity, prejudice, institutional aggression, and the political process will be investigated.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisite Courses**

PSYC101N

**PSYC210N : Abnormal Psychology**

This course explores the diagnosis, treatment and care of the symptoms associated with abnormal behavior. The theoretical causes of various types of psychological disorders' particularly the neurotic, psychotic, and mood disorders will be presented as will a historical perspective regarding treatment. The psychodynamic, cognitive behavioral and medical model approaches to treatment will be emphasized.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisite Courses**

PSYC101N

**PSYC212N : Individual Counseling: Theory and Practice**

This course will present a discussion of the most widely used theories of counseling. Integration of these basic theories with the student's own value system will be encouraged.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisite Courses**

PSYC101N

**PSYC220N : Research Methods**

This course will introduce students to the importance of research techniques and methodologies within the field of psychology (specifically) and to science in general. They will become familiar with the strengths and limitations of empirical studies by exploring the ways in which research is explained to the general public and how essential an adequate understanding can be to the development of programs treatments and policies aimed at improving lives. We will explore the role of ethics in the research process and identify ways that social scientists work to conduct research that helps rather than harms. The course will also examine both quantitative and qualitative approaches to social science research and students will learn and develop, conduct and write research reports.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

**Prerequisites**

MATH106N or MATH107N, PSYC101N.

**PSYC222N : Group Dynamics & Counseling**

This course will provide a study of therapeutic interventions as carried out through a group. The course design includes academic discussion of group processes and dynamics. Theory will be incorporated into application for students to increase their awareness of their group roles and increase their leadership and group problem solving abilities. This course is a combination of didactic and experiential activities. Students are exposed to the various theories of group work, the basics of group process and professional and ethical issues involved in group counseling. Emphasis is placed on determining how students can incorporate the best of each of the models into their own personalized eclectic model-one that is consistent with their philosophy and suits them personally. One aim of this course is a didactic or teaching purpose that focuses on learning how groups function, learning about group dynamics, and acquiring specific skills necessary to effectively lead groups. The other aim is to provide a climate of support and challenge that will encourage students to get personally involved to the extent that they will be given some tools to continue taking an honest look at themselves as persons and to assess how their personal characteristics might either facilitate or inhibit their ability to lead groups.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisite Courses**

PSYC212N

**PSYC240N : Drugs and Alcohol**

This course is designed to examine alcohol use, drug use and misuse, addiction and personal and social consequences. The effect on the family system and roles of family members will also be explored as well as etiology, symptomatology and current treatment modalities. This course contains an optional service learning component.

**Class Hours** 3

**Lab Hours** 0

**Credits** 3

**Prerequisites**

PSYC101N or Permission of the Instructor.

**PSYC290N : Psychology Internship: A Capstone Experience**

This capstone course is intended to provide the student with an internship as a means for enhancing learning and unifying the knowledge and experience for the student in the Associate of Arts Psychology degree program.\*\*. This course will provide an opportunity for students to integrate classroom learning with real world activities. Critical thinking will be encouraged by demonstrating the student's ability to integrate and synthesize past course material and then illustrate this understanding in a final paper. This course will give the student multiple opportunities to be active and collaborative learners through the application of psychological principles and ethical issues such as confidentiality and values. Career planning can also be strengthened with mentoring relationships developed during this experience. Field work positions may include placement in mental health, applied developmental and industrial settings as well as social service agencies, educational intervention programs and adolescent crisis centers. Pre-approval of fieldwork site by Department Chairperson before placement. Students are expected to have field work placement before class begins.

**Class Hours** 1

**Lab Hours** 8

**Credits** 3

**Prerequisites**

Completion of 45 credits of coursework applicable to the Associate in Arts Degree in Psychology\*

### **PSYC290N : Psychology Internship: A Capstone Experience**

This capstone course is intended to provide the student with an internship as a means for enhancing learning and unifying the knowledge and experience for the student in the Associate of Arts Psychology degree program.\*\*. This course will provide an opportunity for students to integrate classroom learning with real world activities. Critical thinking will be encouraged by demonstrating the student's ability to integrate and synthesize past course material and then illustrate this understanding in a final paper. This course will give the student multiple opportunities to be active and collaborative learners through the application of psychological principles and ethical issues such as confidentiality and values. Career planning can also be strengthened with mentoring relationships developed during this experience. Field work positions may include placement in mental health, applied developmental and industrial settings as well as social service agencies, educational intervention programs and adolescent crisis centers. Pre-approval of fieldwork site by Department Chairperson before placement. Students are expected to have field work placement before class begins.

**Credits 3**

#### **Prerequisites**

Completion of 45 credits of coursework applicable to the Associate in Arts Degree in Psychology\*

## Sign Language

### **ASL101N : Deaf Culture**

This course will focus on the socio cultural view of the American Deaf Community. We will explore the two prevailing perspectives, pathology (disability) and socio-cultural (culture, language, mores, folklore), as we discuss contemporary American Deaf Culture. Finally, students will consider the role of history in the development of Deaf Culture.

**Credits 3**

### **ASL120N : Sign Language I**

This course is an introduction to the basic skills in production and comprehension of American Sign Language (ASL). It includes the manual alphabet and numbers, as well as exposure to grammar. Students will develop conversational ability and culturally appropriate behaviors.

**Credits 3**

#### **Notes**

This course fulfills a General Education Core Requirement: Global Awareness.

### **ASL121N : Sign Language II**

This course will assist the student in developing the ability to use and understand sign language at the beginning level. Classes will include readiness exercises, skills development, direct interaction activities and sign vocabulary building.

**Credits 3**

#### **Prerequisites**

ASL120N.

## Sociology

### **SOCI101N : Introduction to Sociology**

This course provides the student with an understanding of the development of sociological thought and the theories and methods used to study social structure and interaction. It emphasizes the influence of culture on human behavior and social relationships. Students will learn how people's location in society and its institutions shapes their experiences and life chances, and how individuals and groups can influence the process.

**Class Hours 3**

**Lab Hours 0**

**Credits 3**

#### **Notes**

This course fulfills a General Education Core Requirement: Behavioral Social Science.

### **SOCI201N : Contemporary Social Problems**

In this course, students will critically examine a selection of the most pressing issues and problems facing society today, including inequalities of wealth and income, crime and violence, race relations, gender and sexuality, work and the economy, globalization, technology, and the environment. To accomplish this objective, students will learn to apply the sociological perspective to the study of contemporary social life. Through this examination, students will gain an understanding of how social problems arise and how they affect society, and they will apply this understanding to the consideration of possible social policies and other remedies. The course takes a hands-on approach to learning wherever applicable. The goals of this course are to provide a solid foundation in social science learning, to enhance critical thinking skills, and to stimulate social commitment.

**Credits 3**

#### **Prerequisites**

ENGL101N or ENGL110N.



**SOCI208N : Sociology of Conflict**

This course examines major social scientific theories of conflict with an emphasis on the need for theories to inform our ability to resolve conflict. The course weaves together ideas from conventional disciplines with new approaches to the cause of deep-rooted conflict. A major focus is on the analysis as a tool.

**Credits 3**

**Prerequisites**

ENGL101N or ENGL110N

**SOCI228N : Social Inequalities:**

**Theory and Practice** This course will allow students to view the development and maintenance of social inequalities in contemporary American culture by exploring how power, privilege, and social status are tied to race, social class, gender, and sexuality. Students will understand the historical roots of prejudice and discrimination as they relate to the production and maintenance of social stratification. Students will examine the role of power in our society by studying various models of authority (e.g. hierarchical vs. flat-power or power-over vs. power-to perspectives).The course will also explore what it means to have privilege and build awareness of the impact that it has in our lives. This course will enable students to understand multiple social issues and to develop their own perspective about why some have more than others.

**Credits 3**

**Prerequisites**

PSYC101N, ANTH110N, or SOCI101N or permission of program coordinator or Department Chair.

## Spanish

**SPAN105N : Spanish I**

An introductory course for the first year language study that takes a communicative, functional approach to learning Spanish at the college level. The course includes grammar, conversation, culture, and readings. At the end of the course the student will be able to speak and write basic Spanish. Students who have taken two or more years of high school Spanish will be required to take a Spanish placement test.

**Credits 3**

**Notes**

This course fulfills a General Education Core Requirement: Global Awareness.

**SPAN106N : Spanish II**

Spanish II initially reviews, then builds on the simple sentence structures and vocabulary learned in Spanish I. Students will understand and converse in day-to-day Spanish and know basic aspects of various Hispanic cultures. Students will also read authentic materials and basic literature, and will write letters and short essays. Course activities accommodate all learning styles and are both innovative and relevant to student experiences. Video materials bring Spanish to life for students by illustrating in context the grammar and vocabulary students are learning.

**Credits 3**

**Prerequisites**

SPAN105N or Spanish placement test score of 75 or higher.